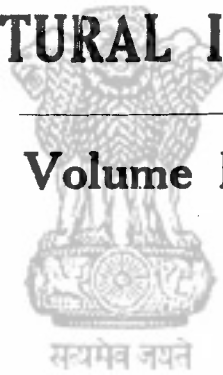


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SERICULTURAL INDUSTRY**

Volume I



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सत्यमेव जयते

**Government of India, Department of Commerce, Resolution
No. 607-T. (1), dated the 3rd December, 1932.**

It has been represented to the Government of India that notwithstanding the existing high revenue duty on imported raw silk the recent increase in imports of that commodity from foreign countries constitutes a grave menace to the existence of the indigenous sericultural industry. It has therefore been decided that the claims of the industry to protection should be the subject of an enquiry by the Tariff Board. The Board is requested to examine the following questions and to make recommendations:—

- (a) whether, having regard to the nature and extent of the competition of raw silk from foreign countries, the claim of the sericultural industry to protection has been established; and
- (b) if the claim is found to be established, in what form protection should be given and to what extent.

2. In making its recommendations the Board will take into account all relevant considerations including those stated in parts (b) and (c) of the Resolution adopted by the Legislative Assembly on the 16th of February 1923. In particular, the Board is requested to consider how its recommendations will affect the handloom weaving industry.

3. Firms or persons interested who desire that their views should be considered by the Tariff Board should address their representations to the Secretary to the Board.

ORDER:—Ordered that a copy of the above Resolution be communicated to all Local Governments and Administrations, all Departments of the Government of India, the Director General of Commercial Intelligence and Statistics, the Central Board of Revenue, the Indian Trade Commissioners, London and Hamburg, the Secretary, Tariff Board, the High Commissioner for India, London, His Majesty's Trade Commissioner in India, the Canadian Trade Commissioner in India, all Chambers of Commerce and Associations, the French Trade Commissioner in India, Burma and Ceylon and the Secretary, Imperial Council of Agricultural Research.

Ordered also that it be published in the Gazette of India.

T. S. STEWART,
Additional Secretary
to the Government of India.

**Press Communique issued by the Tariff Board on the
5th December, 1932.**

The Government of India in their Resolution No. 607-T. (1), dated the 3rd December, 1932, have directed the Tariff Board to enquire into the question of granting protection to the indigenous Sericultural Industry.

2. The Board has been instructed to examine the claim of the industry to protection and its attention has been specially drawn to the following points:—

(1) whether the three conditions laid down in paragraph 97 of the Report of the Indian Fiscal Commission are satisfied, and

(2) the effect upon the Customs revenue of the Government of India of any protective duties which may be recommended.

3. The Board has also been requested to consider how its recommendations will affect the handloom weaving industry.

4. Any persons or firms who desire to claim protection for the industry in India or who consider that the present rate of duty *qua* revenue duty should be maintained, are requested to submit to the Tariff Board a full statement of the grounds on which they do so. Persons or firms who claim protection should state *inter alia* the grounds on which the industry can be considered to fulfil the conditions laid down by the Fiscal Commission, and whether any protection which may be found necessary should be given by means of protective duties or in any other form.

5. Firms or persons interested who desire that their views should be considered by the Board should address their representations (with six spare copies) to the Secretary, Tariff Board, Old Custom House, Bombay, so as to reach the Board's office not later than the 24th December, 1932. On receipt of such representations the Board will issue, as early as possible, a questionnaire setting out the points on which detailed information is required. The dates for the public examination of witnesses will be notified in due course.

Questionnaire No. 1 issued by the Tariff Board.

(N.B.—1. Please answer only questions dealing with matters with which you are directly acquainted.

2. Throughout the questionnaire the Board has asked for various statistics for the last five years. If without delaying your replies you can give these statistics for the last ten years, the additional information would be of great assistance to the Board.

3. Please send your reply (with six spare copies) in time to reach the Secretary, Indian Tariff Board, Council Hall, Poona, not later than 3rd February, 1933.

As the time available for this enquiry is limited, it is important to adhere to this date.)

1. What is the history and the present extent of the industry with which you are concerned? Over what area is it carried on? How many people are (a) entirely, (b) partly dependent upon (i) silkworm rearing, and (ii) reeling, for their livelihood?

2. How is the industry organised with reference to management, finance and marketing?

3. What is the maximum production of (i) cocoons (ii) raw silk, attainable under the present organisation? Give the quantity and value of cocoons and raw silk produced in each of the last five years, and explain any material variation between these figures and your estimate of the maximum production attainable.

4. What is the silk content of typical varieties of cocoons? How does this yield compare with that of Chinese and Japanese cocoons? Is it true that some filatures in India have closed down for want of an adequate supply of Indian cocoons?

5. Which kinds of silkworms are reared? Describe in detail the process of rearing and the various stages from the laying of the egg to the completion of the cocoon?

6. (a) What is your method of constructing and equipping a rearing house and what does it cost? How often do the various parts of it need renewal? In what way can the present method of construction and equipment be improved?

(b) Please show in the following form the results given by each variety of worms reared:—

Race of variety.	Number of days.	Number of cocoons to a lb.	Length of filament.	Denier.

7. Is your method of rearing worms different from that followed in other countries where sericulture is carried on? If so, please explain the exact difference.

8. Are the worms reared from local or from imported seed? Is the production of seed organised separately from the production of cocoons? If it is, give full particulars of the organisation, with full details of the work done and its cost per ounce of seed. If there is no separate organisation, is any control exercised over the selection of cocoons for the production of seed?

9. Are your worms univoltine, bivoltine or multivoltine? If multivoltine, how many broods are ordinarily raised in a year? What is the average number of worms produced from an ounce of seed? How many ounces of seed are on the average hatched in a year?

10. On what leaves are the worms fed? If on mulberry leaves, state whether the mulberry is cultivated by the man who breeds the worms either on his own land or on leased land, or by a man from whom the breeder buys the leaves. In either case give full particulars of the method and cost of cultivation both initial and recurring (e.g., the cost of preparing an acre of land, the kind and quantity of manure used, the number of trees or bushes to the acre, the yield of leaf per tree or bush and the average life of the tree or bush), the quantity of leaves required to feed the worms produced from an ounce of seed and the cost of these leaves to the breeder. If the worms are fed on leaves other than mulberry, state what the leaves are, how they are supplied and at what price.

11. Please give a statement showing for the last five years (i) the prices paid to the cultivator or mulberry leaves by the breeder of worms, (ii) the cost of cultivating mulberry per acre on irrigated and unirrigated land (iii) the cost of cultivation per acre of other alternative crops.

12. What methods are being adopted in your area for improving the supply and quality of food for silkworms and reducing its price?

13. On the average what percentage of the worms die before they form cocoons and from what causes?

14. What are the kinds of disease from which silkworms suffer. What are the causes and what precautions are taken to protect the worms from disease?

15. Do you agree that "climate is the most important factor in the development of sericulture and that the governing points from a climate point of view are temperature and humidity. The temperature that is most suitable is between 75° to 80°F with 50 to 70 per cent. humidity"? Please state if the climatic conditions in the area with which you are concerned are suitable for the development of sericulture.

16. What is the average yield of cocoons per ounce of seed?

17. Give for each of the last five years (a) the total works expenditure incurred on the production of cocoons and (b) the works cost of producing cocoons from one ounce of seed under the following heads:—

- (1) cost of seed,
- (2) cost of labour,
- (3) cost of food for worms,
- (4) cost of appliances,
- (5) other expenses,
- (6) total.

N.B.—If figures are not available for the whole of the area with which you are concerned it will suffice if they are given for any part of it for which they can be compiled with accuracy. In this case the total quantity produced in the area for which costs are given should be stated.

18. What is the proportion of cocoons reeled to those kept for production of seed? What is the average value of each?

19. Does the breeder of worms keep his cocoons to reel at home or does he sell them as cocoons? If he sells them, does he sell at once irrespective of the state of the market or can he keep them till prices suit him? Give the average prices obtained in each of the last five years. If he reels the silk himself, state the average yield of (a) silk and (b) chasam or waste obtained from one hundred pounds of cocoons in each of the last five years and the average value of each.

20. How much of the total production of raw silk is reeled by hand on single or multiple charka, and how much by power driven machinery? Give a full description of each process and of each machine employed.

21. Give for each of the last five years the total quantity of (1) raw silk reeled, and (2) waste produced with the average price obtained for each. How many cocoons are required to produce a pound of raw silk? What is the average proportion of waste to a pound of raw silk? Please state whether your answer relates to silk reeled in a filature or to silk reeled by hand, and in the latter case the method of hand reeling should be specified.

22. What is the initial cost of the equipment commonly used for hand reeling? What outturn should it give? How long does it last?

23. Give for each of the last five years (a) the total works expenditure upon reeling and (b) the works cost of reeling one pound of raw silk—

- (i) by charkha,
- (ii) by Mysore Domestic Basin or other basins, and
- (iii) filature,

under the following heads:—

- (i) cost of cocoons,
- (ii) cost of labour,
- (iii) cost of power, light and fuel,
- (iv) cost of water and soap,
- (v) cost of supervision and management,
- (vi) cost of repairs and maintenance,
- (vii) selling expenses,
- (viii) other expenses,
- (ix) total.

24. Do you consider that Indian filatures are at any disadvantage as compared with their foreign competitors in respect of any of these items of cost?

25. Please state the maximum capacity of the filature for which costs are given; give the actual output of (a) raw silk and (b) waste for each of the last five years.

26. What size you consider a filature should be in order to ensure the most efficient and economical working? Can you give an approximate estimate of the capital required to establish such a filature?

27. Have you any knowledge of filatures in foreign countries? If so, please state what size is generally considered to be economical.

28. What is the total number of people engaged in each branch of the sericultural industry? Please give figures for 1926-27 and for the present year.

29. What is the total strength of the labour employed in your filature? What proportion of the labour is skilled? If an adequate supply of skilled labour available? How long does it take untrained labour to acquire the minimum skill necessary?

30. (i) Please give the rates of wages paid to reelers working—

- (a) with charkha,
- (b) with Mysore domestic basin or other basins.
- (c) in a filature.

(ii) To what extent do you consider the sericultural industry in India is hampered in comparison with its competitors by the inefficiency of Indian labour?

(iii) What are the present facilities provided for technical education—

- (a) for reelers,
- (b) for rearers, and
- (c) any other skilled labour?

31. What is the block value of your filature as it stood in your books at the end of the last complete financial year under the following heads:—

- (a) leases and concessions,
- (b) lands,
- (c) buildings,
- (d) plant and machinery,
- (e) other assets.

32. What do you estimate should be the present day cost under the heads:—

- (i) buildings,
- (ii) plant and machinery,

for erecting a filature having the same capacity as your filature?

33. Please state for each year since 1927-28 the rate at which (a) buildings, (b) plant and machinery have been depreciated and the total amount written off. Please also state the amount of reserve fund created, if any, either from surplus profits or from other sources?

34. What amount of working capital do you consider necessary for a filature of the capacity stated? How is the working capital obtained and at what rate of interest?

35. If any further processes are carried out in the area with which you are concerned, such as the spinning of waste silk, or the re-reeling or the 'throwing' of raw silk, please give full particulars for each of such processes.

36. Where 'throwing' is carried on as a separate business, please supply all the information regarding it which has been asked for in questions numbers 23 to 34 relating to filatures.

37. What are the various industrial uses of raw silk in India?

38. What do you estimate to be at present—

- (i) the total Indian demand,
- (ii) the total Indian production of raw silk?

39. Of the total quantity of raw silk and waste produced in each of the last five years please state the quantity used locally, the quantity sold for use in other parts of India and the quantity sold for export. Please give full particulars of the marketing methods adopted.

40. Compare the railway freight paid by importers from the ports to the principal upcountry markets and the railway freight paid by you.

(N.B.—What is desired is detailed information regarding actual consignments with the name of the port, the names of the upcountry stations, the distances, rates per maund per mile, etc.)

41. Please prepare a statement showing the prices at which during the past five years your products have been sold in distant markets as compared with your home market. Do the former generally correspond with the latter if allowance is made for freight to destination? If not, please explain the reasons for the difference.

42. What is the present method of sorting and grading Indian silk? Can this method be improved? If so, please make your suggestions.

43. Is there generally any marked difference between the wholesale prices published by the Chambers of Commerce and the prices actually realised by

the reelers? Please support your answer by figures and give reasons for any difference.

44. Please state the quantity of each kind of foreign silk imported by you during each year since 1927-28. From what countries have you imported it and at what prices? If possible, please give—

- (1) f.o.b. price per lb.,
- (2) port of importation,
- (3) freight and insurance, etc.,
- (4) landing charges, etc.

State the class or classes of raw silk for which prices are given.

45. What kinds of imported silk as classified in the Indian Customs Tariff compete with the different kinds of Indian silk and what kinds of imported silk are generally required by the handloom weavers?

46. Do you consider that any raw silk imported from China or other countries is placed on the Indian market at prices which do not cover the cost of production or at prices which are lower in India than those at which they are placed on other markets (excluding freight and duty). If so, please furnish samples of such silk, if possible, with particulars of such prices. Please state fully your reasons and the evidence on which you rely.

47. How does the quality of the competitive varieties of imported raw silk compare with that of Indian silk in colour, in other intrinsic merits and in winding qualities? How far is the difference of price between Indian and imported silk due to these considerations and how far to other causes?

48. To what extent do you consider that the competition of imported silk with Indian silk has been accentuated by fluctuations in the exchange value of the currency of the exporting countries? Please give figures in support of your view. Do you consider that competition from foreign countries is likely to increase in the future owing to the exchange factor?

49. What quantity of silk waste is imported into India and what use is made of it?

50. Please, state whether any attempt has been made in India to instal a spinning plant for the manufacture of spun silk out of silk waste? If not, what are the causes? What capital outlay is required for such a plant?

51. To what causes do you attribute the serious decline of the sericultural industry?

52. To what extent do you consider the decline due to the operation of world factors, of factors special to India or of factors special to a particular locality in India?

53. Do you consider that the causes of the present decline in the industry are of a temporary or permanent character?

54. What are the reasons for the decline of the export trade in raw silk, waste and cocoons? What are the prospects of reviving it?

55. Does the present method of levying revenue duty on raw silk seriously affect the silk industry? If so, please state what remedy you suggest.

56. In paragraph 97 of their report, the Fiscal Commission laid down three conditions which in ordinary cases ought to be satisfied by industries claiming protection. Do you consider that those conditions are satisfied in the case of the sericultural industry? And in particular—

A. Do you claim that the industry possesses natural advantages, such as an abundant supply of raw materials, cheap power, a sufficient supply of labour or a large home market?

B. Do you claim that without the help of protection, the industry is not likely to develop at all or is not likely to develop so rapidly as is desirable in the interests of the country?

C. Do you claim that the industry will eventually be able to face world competition without protection?

57. (a) What is the amount of protection which you consider necessary?

(b) In what form do you propose it should be given?

(c) For what period do you think it will be required?

Please give full reasons for your answers.

58. What is likely to be the effect of your proposals upon (a) the silk textile industry in India (b) the handloom industry? Are any other industries likely to be affected?

59. What proportion of the cost of (1) twisted silk and (2) silk piecegoods is represented by the cost of raw silk?

60. Do you consider that if the sericultural industry is protected for a certain period, it will be possible within that period to reduce the cost of producing raw silk in India? If so, please state (1) the amount of reduction which can be secured, (2) the particular items of cost in which reduction can be made and (3) the means by which such reduction can be brought about?



सत्यमेव जयते

Questionnaire No. 2 for the Handloom Industry issued by the Tariff Board.

1. Of the total number of hand weavers in your area, how many people are engaged—

- (i) in weaving pure silk goods only,
- (ii) in weaving both cotton and silk mixed goods (that is, in making cotton piecegoods with silk borders) and
- (iii) in weaving cotton goods only.

2. From what sources do the weavers obtain their raw materials such as raw silk, silk yarn, spun silk, artificial silk yarn, gold thread—whether Indian or imported—and what is the price paid for it?

3. Please state whether the following operations are generally performed by the weaver himself or by some other agency—

- (i) twisting and winding,
- (ii) boiling off,
- (iii) dyeing,
- (iv) doubling and preparing the warp.

4. What kinds of silk are used for warp and for weft?

5. The following are said to be the varieties of silk goods generally woven by the weavers:—

- | | |
|---------------|-----------------------------|
| (1) Gulbadan. | (7) Loongies. |
| (2) Daryai. | (8) Handkerchiefs. |
| (3) Phulkari. | (9) Suitings and shirtings. |
| (4) Sarees. | (10) Gown pieces. |
| (5) Gota. | (11) Brocades (Khimkhab). |
| (6) Dupattas. | |

Which of these classes of cloth are woven in your area and are there any others? To what extent do they compete in the market with imported piecegoods and what are the qualities in which competition is felt most?

6. How many days are generally taken by a weaver to finish each of these typical classes of cloth?

7. What kinds of silk is used for each of them and what quantity?

8. What is the length and breadth of a piece of each sort and what is its approximate price?

9. What is the approximate value of the total annual production of all sorts?

10. For what purposes is spun silk used and is its use restricted for particular kinds of cloth?

11. Do the merchants supply silk to weavers on credit? If so, what amount do they give and for what period?

12. Do the silk merchants who are importers' agents sell direct to weavers or through retailers or brokers?

13. How does the quality of Indian silk compare with that of imported silk? What is the opinion of silk merchants with regard to Indian silk?

14. Is there a system of supplying silk to weavers and taking back the cloth from them? If so, what are the conditions generally imposed?

15. How has the introduction of artificial silk affected the market for real silk?

16. What is the approximate cost of manufacture of typical classes of cloth under the following heads:—

- (1) Raw material.
- (2) Twisting and winding charges.

- (3) Dyeing charges.
- (4) Weaving charges.
- (5) Cost of labour.
- (6) Other charges.

How are the weavers paid—per day or per piece and at what rate?

17. In what way is assistance rendered by Co-operative Societies? Do they advance money on finished products or do they assist the weavers in getting their supplies of raw materials and other requisites for the manufacture of typical classes of cloth?

18. Where is the manufactured article sold? If not at the place of manufacture what are the principal markets to which finished goods are sent? What charges including freight, over and above the cost of manufacture has the weaver to incur in transporting his goods?

19. Is the demand for natural silk increasing or decreasing?

20. What are the present sources of supply of raw silk? What is the approximate amount of raw silk consumed in various markets in India?



सत्यमेव जयते

**Questionnaire No. 3 for Importers and Traders issued by the
Tariff Board.**

1. Which are the foreign countries from which competition is keenest in India? In which of the Indian markets and in respect of what classes of silk is competition keenest?

2. Please state for each of the past five years the prices at which the principal classes of imported silk which compete with Indian silk have entered the country. Please state also current price of each class of silk. The c.i.f. price, landing and other charges and duty should be stated separately in each case.

3. Please state the corresponding prices at which the principal classes of Indian silk which compete with imported silk have been sold.

4. Is there any difference between the price realised for any class of Indian silk and the price of the corresponding class of imported silk? If so, please explain the reasons for the difference.

5. Compare the railway freight paid by you from port to selected up-country markets and the railway freights paid on Indian silk to the same markets.

N.B.—What is desired is concrete instances giving the name of the port, the names of the upcountry stations, the distances, rate per maund per mile, etc.

6. Have you any reason to suppose that the prices at which foreign producers sell for export to India are unremunerative, i.e., below the cost of production? If so, please state fully your reasons and the evidence on which you rely.

7. Do you consider that Indian silk is equal in quality and appearance to imported silk? Does it command the same price? If not, to what causes do you attribute the difference in the prices?

8. Do the conditions of manufacture in India differ materially from those in competing countries? If so, what are the important differences?

9. Do you consider that as compared with the foreign manufacturers, the Indian manufacturer is at a disadvantage in respect of plant and machinery, labour, materials, climatic conditions, freights, Customs duties or other factors?

10. What do you estimate to be the probable trend of the price of raw silk during the next few years?

11. It has been stated that the present method of fixing tariff values results in a material under-estimating of the real value of silk imports. Is this statement correct? If not, please quote definite instances in support of your view.

12. What are the deniers of imported silk and what are the lines of imported silk goods which compete directly with silk manufactured in India?

13. Do you consider that the competition of imported silk with Indian silk is in any way assisted by special facilities in the matter of credit obtained by the exporting houses in their own country or offered by them to buyers in India?

14. How far do you consider that the competition of imported silk with Indian silk is facilitated by greater attention paid by exporters to the requirements and preferences of Indian middlemen and consumers in regard to matters of quality, finish and packing?

15. Has there been any marked change in recent years in the quality of silk imported into India from China or any other country?

16. Do the silk merchants who are importers sell direct to weavers or through retailers or brokers?

17. Do you consider that there are any signs of a growing preference on the part of Indian consumers for cheaper qualities of silk goods than those ordinarily produced in India and that this preference is working to the disadvantage of Indian silk.

18. Can you give any specific instances in which any line of Indian silk goods has been ousted from or seriously handicapped in the home or foreign markets or any part of them by imports from foreign countries.



सत्यमेव जयते

Letter No. 558, dated the 5th December, 1932, from the Tariff Board, to certain Indian States.

I am directed to invite your attention to the Government of India, Commerce Department's Resolution No. 607-T. (1), dated the 3rd December, 1932, in which the Tariff Board has been directed to enquire into the grave menace caused to the indigenous Sericultural industry by the increasing imports of raw silk.

2. The Trade Returns show that from March, 1932, onwards raw silk has been imported in quantities greatly in excess of those of previous months. The imports in the first 7 months of 1932-33 are greater than those for the whole years 1928-29, 1930-31 and 1931-32. At the same time the average value of the imports in 1932-33 is 37 per cent. lower than that of the imports in 1927-28. The figures for the last five years are as follows:—

IMPORTS OF RAW SILK.

Year.	Quantity.	Value.	Average value.
	Million lbs.	Rs. lakhs.	Rs. per lb.
1927-28	2.36	145.32	6.17
1928-29	2.13	123.57	5.80
1929-30	2.18	123.13	5.66
1930-31	1.94	88.17	4.55
1931-32	1.56	62.27	3.98
1932-33 (7 months)	2.14	81.95	3.82

3. I am to request in the first place that if the Sericultural industry is carried on in the State of , you will be good enough to obtain for the Board such information about it as is in the possession of the Durbar with particular reference to the following points:—

- (1) The number of people engaged in the industry and their average earnings;
- (2) the manner in which the industry is organised with reference to management, finance and marketing;
- (3) the kind of silkworms reared and whether from local or imported seed;
- (4) the precise nature of the operations involved in the case of each kind of silkworm reared and, in the case of those which live on mulberry leaves, the method by which the mulberry is cultivated;
- (5) the number of broods produced in a year and the average number of cocoons produced per ounce of seed;
- (6) the proportion of cocoons reeled as compared with those kept for producing moths;
- (7) the average cost of producing cocoons:—
 - (a) Cost of seed.
 - (b) Cost of food for worms (including for domesticated worms the cost of mulberry cultivation).
 - (c) Cost of appliances.
 - (d) Cost of labour.
 - (e) Other expenses.
- (8) the average price obtained for cocoons sold, or, if the silk is reeled at home, the average yield of silk obtained and its value;
- (9) the cost of reeling silk by hand or by machine, and the extent to which machinery is used for this purpose;

- (10) the total annual production of raw silk and the corresponding quantity of waste produced and its average value;
- (11) the quantity of silk and waste used locally and the quantity sold for use in other parts of the country or for export; and the manner in which it is marketed.
4. I am further to request that if the Sericultural industry is carried on in the State, you will obtain and forward to the Tariff Board the Durbar's views on the following two questions:—
- (a) to what extent the industry has been affected by the increased imports of raw silk, either by way of loss of orders or by the depression of the price obtainable to an uneconomic level;
- (b) whether the industry is of such economic importance to the State that it should be protected either by raising the duty on imported raw silk or by other measures.
5. The terms of reference require the Board to consider the effect of its proposals upon the handloom weaver. To enable the Board to form an opinion upon this matter, I am to request you obtain information regarding the extent to which handloom weavers in the State use local or imported silk, and how far they can afford to pay the higher price which may be expected to result in case the duty is increased.
6. I am to request that if possible a reply (with six spare copies) to this letter may reach the Board's office by the middle of January. In case it may not be possible for the Durbar to collect all the particulars required by that date, it would be convenient if they would send such information as is then available, and send further particulars in a subsequent communication.

Government of His Highness the Maharaja of Mysore.

Letter No. 365/580-1931, dated the 16th January, 1933, from the Hon'ble the Resident in Mysore.

I am directed to refer to your letter No. 558, dated the 5th December, 1932, on the above subject, and to forward herewith 7 copies of a Note received from the Government of Mysore, which contains the information asked for in paragraph 3, and the views of the Government of Mysore on the points raised in paragraphs 4 and 5 of your letter.

MEMORANDUM ON THE SERICULTURE INDUSTRY OF THE MYSORE STATE.

Extent and distribution.—The Silk Industry of Mysore has been in existence for over a century and is practised in the Districts of Bangalore, Mysore, Tumkur and Kolar in about 2,500 villages out of 19,000 villages in the State. Sericulture is the largest and most important cottage industry in the State, and fits in admirably with agriculture which is the main occupation. It is practised by small agriculturists as a subsidiary occupation, and affords profitable and steady employment throughout the year for women and children at home and gives occupation to the raiyats during agricultural off seasons. A well established mulberry garden withstands drought better than field crops, and in bad years, rearing silk worms has often saved entire taluks from acute general distress consequent on insufficient rainfall. This industry undoubtedly gives economic stamina to the population practising it. The returns from the silk industry are absolutely necessary for the subsistence of a large portion of the population in the State. Cultivation of mulberry, rearing of silk worms, reeling of silk, marketing of silk and weaving of silk give occupation to a large number of families. In addition to the people directly engaged in the industry, a large number of families find employment in such subsidiary operations connected with sericulture as plucking leaves, digging, weeding, pruning and manufacture of appliances in sericultural villages. It is difficult to make

an accurate estimate of the number of families indirectly benefited by this industry, but it may be safely said that in sericultural villages there is hardly any family which does not contribute to the industry at one stage or another and the result is that sericultural villages are ordinarily more prosperous and show more of alertness and life than others.

Taking into consideration the total area under mulberry, the exports of raw silk from the State and the number of handlooms devoted to the weaving of silk fabrics, it may be roughly estimated that the Silk Industry in its several branches gives occupation to about two lakhs of families in the State under normal conditions. By cultivating mulberry over an acre of dry land and rearing silk worms with the leaf obtained from the mulberry garden, the sericulturists obtain on an average about Rs. 200 per year during normal times. It is difficult to estimate the average earnings at the present time as the demand for cocoons and raw silk is very limited, and this is reflected in the earnings. The reeler during the working season makes from eight annas to ten annas per working day. The weaver earns from Rs. 20 to Rs. 35 per month. The amount earned per day by other classes of labour as that engaged in digging the soil, pruning the garden, plucking the leaves, etc., varies from place to place, round about As. 3 for boys and women and As. 6 for men. The earnings of the middlemen engaged in the trade in cocoons, raw silk and finished silk fabrics obviously vary according to individual capacity, but may be taken at somewhere between Rs. 10 and Rs. 50 a month.

Organisation, management, finance and marketing.—The Sericultural Industry properly so called comprises all operations from the cultivation of mulberry to the marketing of raw silk. These operations may be grouped as follows:—

1. Mulberry growing and silk worm rearing.
2. Silk reeling.
3. Trade.

The rearing of worms is carried on side by side with the cultivation of mulberry. The rearer as a rule grows his own mulberry, and it is rarely that mulberry is grown for sale, though occasionally surplus leaves or surplus worms are sold to neighbours who require them. Generally, mulberry is raised over small plots of land ranging from half or three-fourths of an acre to ten acres. It is grown both as a dry crop and as an irrigated crop. The principal capital investment required in sericulture is the mulberry garden; the rearer's other capital requirements are few. His house is his place of work and his wife and children furnish the labour required. This is what makes sericulture a perfect home industry. It may sometimes happen that he requires some money and this he usually borrows for short terms from the reeler who is the prospective purchaser of cocoons. It is, however, rarely that the money is required for sericulture. It is more often wanted for other purposes, social or agricultural, the agriculturist is frequently in need of cash between harvest and harvest and sericulture only gives him credit-worthiness. The Sericultural Co-operative Societies have also begun to assist him to some extent. As soon as the cocoons are ready, the rearer sells the same to the dealer in cocoons and receives the amount due to him less the advances, if any, received from the dealer. In normal times, when the trade is brisk, he usually gets ready money against the delivery of the cocoons. When trade is dull, it is sometimes necessary for him to allow time to the reeler to reel the cocoons and sell the silk.

The reeling establishments are located all over the silk tract. The smallest unit is a *Charka*, consisting of one basin and one reel, and a large number of establishments are of this size; but there are also a fair number of larger establishments consisting of anything from 5 to 30 reels. The reeler sometimes makes his own arrangements with the rearer of worms for the supply of green cocoons, but the usual practice is to purchase through a middleman or broker who receives a commission of about two annas per 12 lbs. and the reeler has also to bear the cost of transportation of the

cocoons to his place. This varies, according to the distance to be covered, from one anna to two annas per 12 lbs. The silk reeled off the cocoons is converted into hanks and disposed of to the merchants either locally or in distant centres of trade. The reeler generally gets advances from the merchants dealing in raw silk and on these advances, he pays interest ranging from 10 to 12 per cent. He has to give a commission of one and a half annas per pound. When the trade is brisk or if the merchants have already booked forward orders, the reeler gets cash against the delivery of raw silk. When the demand is slack or if the merchant has not got any orders on hand, the reeler will have to wait till the raw silk deposited by him with the merchant has been sold. When it is finally sold, the amount realised less the advance and interest accruing on it is adjusted to his account.

The owner of the silk *koti* is partly a merchant and partly a broker. The capital invested by him is family capital supplemented with capital borrowed from a private banker or a joint-stock bank. The merchant gets raw silk from the reelers in the interior. He makes advances to the reelers and charges them interest on such advances ranging from 10 to 12 per cent. He gets a commission of one and a half annas per pound from the reelers and an equal amount from his customers in different places. He sends out silk in bales of 70 lbs. on an average. Time given to the buyer depends upon his financial standing. Generally, the merchant insists upon an early payment. Interest is charged in some cases, the rate varying from 8 to 12 per cent.

Mysore silk worm.—Mysore has a distinct race of silk worms. These worms are multivoltine, feed on mulberry leaf and produce greenish cocoons, which yield a beautiful lustrous silk of excellent quality. The silk worm reared in Mysore is indigenous to Mysore. Of late, hybrids between pure Mysore and pure Japanese or Chinese races are also being reared by the sericulturists; but these form a very small part of the total seed supply. Though hybrid seed is 40 per cent. more profitable to rear than the pure Mysore seed, yet since the manufacture of such seed requires great skill and care and special equipment, only Government Grainages at present issue it, and it will be sometime before the work can be transferred to aided or private grainages. This is one of the potential directions in which silk production could be increased and the cost reduced; but it necessarily takes sometime. The cocoons produced by these hybrids are used for reeling only. The pure Chinese and Japanese races used for the preparation of hybrid layings are univoltines and bivoltines. These races are bred pure by the Sericultural Department for seed purposes and no deterioration has been noticed in the stock after several years of continuous rearing but small quantities of fresh seed are also imported from time to time for reinforcing and replenishing the stock.

Rearing.—The raiyat or the rearer purchases seed cocoons or disease free layings. It takes about ten days for the eggs to hatch and during this period, they are kept at the ordinary temperature of the rearing house, care being taken to protect them from the attacks of lizards, ants, etc. The young worms, so soon as they hatch out, are fed with tender mulberry leaves cut into very fine pieces. During the first ten days, they are fed once in two hours and require very careful attention. By the end of this period, they will have grown sufficiently to be fed with slightly more mature leaves cut to a larger size. In about thirty days from the date of hatching, the Mysore worm will be ready to spin its cocoon. No feeding is necessary at this stage. The ripe worms are mounted on "Chandrikes" or spinning trays where each worm builds a cocoon around itself. Three days later, the cocoons are removed from the "Chandrikes" and are ready for sale. The hybrid worm forms a cocoon in about 25 days after hatching.

During the larval stage, the worm casts off its skin, four times, growing bigger and bigger after each moult. As worms grow bigger, they require larger space and over-crowding has to be avoided. Bamboo trays are used

for rearing the worms and the trays are kept one above the other on stands. It is very necessary that the rearing room should have sufficient light and ventilation. The worms should be protected against the attacks of ants, lizards, rats, etc. During the rearing, worms develop so rapidly that young worms which occupy one tray will occupy 20 trays when they grow to maturity. After the fourth moult, the worms eat for ten days and during this period, they consume five times the quantity of leaf consumed during the preceding 20 days. Entire leaves may be fed to the worms after the fourth moult. For details, reference is invited to the Hand Book of Sericulture by Messrs. N. Rama Rao and M. Yonemura.

Mulberry cultivation.—Three varieties of mulberry are grown in Mysore, viz., Boodi Kaddi, Yennerangina Kaddi and Sultani Kaddi. The last named variety which yields very small leaves and which requires heavy manuring has practically disappeared. The other two varieties are grown all over the silk area. Several new varieties have been introduced by the Sericultural Department with promising results and the best of them will ultimately be distributed for wide propagation.

Mulberry is a deep-rooted plant and yields leaf for over 15 years when once it is planted. It is generally propagated by means of cuttings and is grown in the form of bushes. The initial expenditure for planting a new mulberry garden is from Rs. 75 to Rs. 100 per acre. Mulberry is grown both on dry land and on irrigated land. In the case of dry cultivation, the plant depends upon rainfall for water supply. Irrigated gardens get their water supply either from tanks, shallow wells along river banks or deep wells. The plants are pruned once a year. The cultural operations comprise digging, manuring, weeding, etc., and have to be attended to at fixed intervals. Generally, gardens are given a digging after harvesting a crop of leaves. Manure is applied either once or twice a year. Farm yard manure, silk-worm litter and artificial manures such as ammonium sulphate and groundnut oil cakes are used.

The first crop of leaves after pruning is plentiful and the leaves are of good quality and size. These leaves would be ready for harvesting in about two or two and half months after pruning. As the worms take one month from start to finish, the leaves would be completely harvested in three or three and half months after pruning. The next crop of leaves will be ready for harvest in about a month. Generally, four to five crops of leaves are harvested from the rainfed gardens and six to seven crops from irrigated gardens. The size and yield of leaves would diminish after each harvest. The irrigated gardens yield leaf during summer months also. These gardens have to be protected against the depredations of cattle. The rainfed gardens do not yield any leaves during summer.

The system of planting mulberry gardens and of harvesting leaves varies with each locality. In Kolar and parts of Bangalore District, the mulberry cuttings are planted close together in lines one foot apart to prevent wastage of water and the plants are cut down to the root at each harvest. In other parts, the mulberry is planted in pits nine inches apart and the rows are about two feet apart. Only the leaves are plucked off the twigs at each harvest and the plants are pruned to the ground once a year.

Crops.—Roughly one acre of rainfed mulberry garden yields about 6,000 lbs. of leaves in a year and the cost of cultivation would amount to Rs. 84 per year. An acre of irrigated garden yields 10 to 15 thousand pounds of leaves per year, the yield depending upon the quantity of manure applied and the cultural operations carried on. The cost of cultivation in this case varies from Rs. 130 to Rs. 200 per annum.

Four to five broods are reared in a year from rainfed gardens and six to seven broods from irrigated gardens.

Generally, about 140 Mysore Layings weigh one ounce. These produce about 27,500 cocoons or 50 lbs. of cocoons.

About 97 per cent. of the cocoons produced in the State are used for reeling and three per cent. for seed purposes. The seed cocoons required

by the Kollegal Taluk of the Madras Presidency are supplied from the Mysore area.

Cost of production of cocoons.—The average cost of producing cocoons per unit of 25 lbs. (Local Maund) is shown below:—

	Rs. A. P.
(a) Cost of seed—70 layings	0 8 6
(b) Cost of food for worms—400 lbs. leaves at 2·7 pias per lb.	5 8 0
(c) Cost of appliances as trays, stands, chand- rises, etc.	0 5 4
(d) Cost of extra labour for plucking the leaves after the fourth moult.	1 4 0
(e) Miscellaneous	0 3 0
	<hr/>
	7 12 10
	or 7 13 0
	<hr/>

Cost per lb. of cocoons $125/25=5$ annas.

N.B.—Generally the members of the family attend to the plucking of leaves, till the worms pass the fourth moult, as the quantity of leaves required up to that stage is very small. The feeding of the worms in all the ages is attended to by the members of the family in addition to their household duties.

A portion of the dwelling house is utilised for rearing the worms. The capital investment in the business is very little. The rearer has to find ready money only for the purchase of seed.

The details of cost of production as furnished above do not include provision towards rent. The excess, if any, in the price realised over the cost of production of cocoons constitutes the remuneration for the labours of the family.

Reeling.—The cocoons are at present sold at an average price of five annas per lb. The cocoons are not reeled by the rearer himself but are generally sold to professional reelers who reel the silk and sell the same in silk centres.

In Mysore the following kinds of reeling machines are used for producing raw silk:—

1. Indigenous Country Charka.
2. Mysore Domestic Basin.
3. French and Italian Filature Basin.

The Charka and the Domestic Basin are worked entirely by hand. In the filatures the reels are run by power, but the actual reeling work in all the machines is done by hand.

There are in Mysore about 4,000 country charkas, 130 Mysore Domestic Basins and about 70 Filature Basins. The Filature Basins and the Mysore Domestic Basins are capable of producing about 71,000 lbs. of high grade silk per annum. The rest of the silk is produced in country charkas. The cost of production of one lb. of silk with the three appliances specified above is as follows:—

Country Charka—about Rs. 6 per lb. exclusive of depreciation, interest on capital and owner's remuneration.

Mysore Domestic Basin—Rs. 7-14 per lb. exclusive of depreciation, interest on capital and owner's remuneration.

Government Silk Filature—Rs. 8-12 per lb. includes overhead charges. The details of the cost are given in Annexure I.

Total production of raw silk and silk waste.—The following statement shows the area under mulberry, the estimated total output of raw silk and silk waste together with their values during the past six years:—

Year.	Total area under Mulberry (acres).	Production of raw silk.		Production of silk waste.	
		Lbs.	Value	Lbs.	Value
			Rs.		Rs.
1926-27	53,483	11,60,000	1,10,20,000	5,80,000	5,80,000
1927-28	50,194	10,00,000	90,00,000	5,00,000	2,50,000
1928-29	46,312	9,20,000	73,60,000	4,60,000	2,30,000
1929-30	43,624	8,80,000	69,30,000	4,40,000	2,20,000
1930-31	42,881	8,60,000	51,60,000	4,30,000	1,07,500
1931-32	36,511	7,40,000	41,62,500	3,70,000	92,500

Exports.—The following statement shows the total quantities and values of raw silk and silk waste exported from the State during the last six years:—

Year.	EXPORT OF RAW SILK.		EXPORT OF SILK WASTE.	
	Quantity in lbs.	Value in lakhs.	Quantity in lbs.	Value in lakhs.
		Rs.		Rs.
1926-27	746,692	66-87	613-278	6-10
1927-28	670,760	58-01	480-848	2-25
1928-29	619,650	52-30	493-394	2-50
1929-30	552,844	42-68	462-890	2-27
1930-31	383,440	23-13	234-720	0-59
1931-32	367,440	22-20	266-560	0-67

A portion varying from 36 to 40 per cent. of the raw silk produced in the State is used up locally. The balance of the raw silk is sold outside the State, but still in India, and all the silk waste is exported abroad.

Market.—The principal centres of trade in raw silk are Bangalore, Channapatna, Siddlaghatta and Chikballapur. The bulk of the trade passes through Bangalore City, where there are a number of silk “Koties” which specialise in trade in raw silk. The owner of the “Koti” gets raw silk from the reelers in the interior. The reeler deposits the raw silk manufactured or collected by him with the owner of the “Koti” and obtains an advance from him amounting from 50 to 75 per cent. of the total value of raw silk so deposited. On this advance, interest is charged at rates varying from 10 to 12 per cent. A commission of one anna per seer of 26½ tolas is charged by the “Koti” owner to the seller, i.e., the reeler. Sometimes large customers from consuming centres also employ brokers to assist them in getting silk from the silk “Koties”. For the services rendered by the brokers, a commission of two to four annas per seer called “Gootum” is charged. The brokers also arrange, if required, for the purchase of silk on credit from the “Koties”. There are five such brokers in Bangalore, and their services are availed of largely by customers from Gadag, Hubli, Dharwar, Bhagalkote, Shapur, Belgaum, Guladagudda, Bettigere, Kanchi and Salem.

The "Koti" owner sends quotations to customers in different centres of trade outside the State. As soon as an order is received a consignment is made and forwarded to the purchaser. The silk is sent out in bales of 70 lbs. or 105 to 108 seers of 26½ tolas each. The purchaser has to give a commission of one anna per seer. When credit is allowed, he is charged interest at the rate of 10 to 12 per cent. from the date of consignment. Generally, the 'Koti' owners realise their dues as early as practicable. Money is received by means of insured letters. So soon as the amount is received, it is credited to the account of the reeler and the advance made to him is adjusted out of it.

Most of the silk waste produced in Mysore is exported through Madras or Bombay. The exporting houses have their agents all over the State, and these men generally go about the villages where charkas are working, collect all the silk waste and send it by rail. The agents are sometimes placed in funds by the exporting houses for making advances to the reelers. There are, in addition, a few dealers who collect the waste on their own account and sell it to the exporting houses. Money is realised against the despatch of the rail receipts.

Extent to which the industry is affected by the increase in imports.—The decline in the exports of raw silk from the State and the shrinkage in the area cultivated under mulberry (*vide* tables given above) indicate the extent to which Mysore sericulture has been affected by the competition of raw silk imported from foreign countries. It is ascertained that the Mysore silk has lost its market in several of the most important centres of weaving in the Madras and Bombay Presidencies, Hyderabad and the United Provinces. Mysore silk of fine deniers was till recently much in demand in India at Banares, Surat, Belgaum, Gadag, Bagalkote, Hyderabad, Kumbakonam and Conjeevaram, among other places. It has been the experience of Mysore merchants that the imports of foreign raw silk at steadily declining prices have not only captured their Indian market but have also encroached upon their domestic market. In Bangalore City alone, out of a total daily consumption of about 135 lbs. of silk, about 100 lbs. now consist of imported foreign silk. The natural result of the influx of phenomenally cheap foreign silk has been an unprecedented fall in the price of Indian raw silk. At present, the price of raw silk (Charka) is about Rs. 6 as against Rs. 14 per lb. in 1922. It is considerably below the price obtaining in the pre-war year which was Rs. 7-8-0 per lb. That the fall in the price of silk is not due to the general depression, but solely to the disastrous competition of foreign silk will be borne out from the statement enclosed herewith as Annexure II, showing the index numbers of the wholesale prices of commodities in Bangalore and the index numbers of the price of raw silk. The general level of prices of all commodities is seven points above the level of the pre-war year in last September, while the price of raw silk is 36 points below. The rate of fall in the price of raw silk has been more rapid since July 1930. There was some recovery in the price during the latter part of the year 1931 but this was only temporary lasting for only four months. Since January 1932 the price of raw silk has been suffering a steady fall.

The present price of silk is well below the cost of production carried on under normal conditions. If the present prices continue, the industry is doomed, and even now, it is rapidly going out except in places where there are special facilities for production. Since 1926-27 about 17,000 acres (or 32.2 per cent.) have gone out of mulberry, each acre going out representing a capital loss of about Rs. 100 to Rs. 150. The decline would have been more rapid but for the deep roots which this long established industry has taken in a poor and conservative population, and the inability of the workers to find an alternative source of employment. These retarding causes only serve to prolong the agony of disappearance and make it more pitiable. The only remedy is relief from the strangling pressure of foreign competition.

The economic importance of the industry.—The industry is of great economic importance to the State. In some form or other, it provides employment under normal conditions to about two lakhs of families. The well-being of nearly a sixth of the total population of the State depends on this industry. In the rural economy, sericulture plays a very important part. The cultivation of mulberry and the rearing of silk worms afford a subsidiary occupation, which enables the family of the agriculturist to turn its waste time to account, and earn a return which in many cases makes all the difference between a half starved life, without any hope of improvement, and a self respecting competence. The capital invested in the business is small and the spare time of the raiyat is usefully employed. Persons who cannot otherwise participate in production on account of health, age or social customs can pursue the industry to considerable advantage. It is a matter of primary importance that in a rural country there should be as many occupations of a varied character as possible. Silk worm rearing and silk reeling come in handy as a suitable occupation especially as nature has provided the people with advantages in climate and economic environment. A prosperous sericulture has a vital bearing on the stability and progress of the silk hand weaving industry. The trade in silk and silk fabrics has created an organisation which has vested interests, and has great potentialities of service. All these suffer with sericulture, and will be involved in its fall. If the industry is to be saved, it has to be protected against the ruinous competition of raw silk from China and Japan. It has already suffered great damage, but with immediate relief, its natural recuperative powers will enable it to make a speedy recovery.

It seems probable that as a result of the contraction of their principal market due to the depression in America, China and Japan are directing their efforts to securing a market in India. There is no doubt that the depreciation of Chinese and Japanese money has been a factor favourable to the portentous growth of imports. It is probable that foreign silk is being sent to India at prices below cost in the countries of production. This sacrifice may be an effort of despair, or it may be sustained by the hope that if Indian sericulture is once killed—as killed it must be if this onslaught should continue unchecked—then China and Japan would have the Indian weaving industry at their mercy, and could recompense themselves by raising prices safe from competition. It would be unreasonable to expect that the Indian silk weaving industry would long survive Indian sericulture. To protect the industry adequately, duties should be imposed on foreign raw silk, as well as prepared silk such as noils, warps and yarns and also on silk fabrics. It is quite obvious that a duty on raw silk without a corresponding duty on the silk manufactures coming into the country would be futile. Exception may, however, be made in the case of articles which cannot at present be manufactured in India, but so soon as the local manufacture of such articles becomes possible, adequate protection should be extended also to them.

Policy of Government.—Government have been bestowing their attention on the development of the industry. A separate Department of Sericulture has been organised and the annual expenditure on the department has gone up from Rs. 70,000 to Rs. 1,25,000. The administration reports of the department supplied to the Tariff Board give an idea of the nature and extent of the activities of the department. The policy of Government is:—

1. To gradually eliminate the loss of crop due to bad seed.
2. To increase the yield of cocoons by introducing improved breeds of worms, and popularising more efficient rearing.
3. To improve methods of reeling.
4. To reduce cost of mulberry by introducing superior varieties of mulberry, and popularising better methods of cultivation.

5. To pioneer and expand the utilisation of Indian silk in the manufacture in India of superior fabrics which are being imported at present.

Action is being taken on all these lines, and very encouraging results have been obtained, due to the fact that most of our soils are suitable for mulberry and our climatic conditions are generally favourable for rearing silk worms. There is thus practically unlimited scope for expansion. It is a conservative estimate that under normal conditions, the output of silk could, in a few years and with the efforts that are now being made, be increased to three times its present volume, and its quality improved so as to have nothing to fear from foreign competition. The improvements that are being gradually introduced in all the operations comprised in sericulture are bound to bring about a considerable reduction in cost. This policy is being steadily pursued; but when regard is had to the extent of the industry and the nature of the people who find employment in it, it will be realised that improvement is a question of time and protection. Time is required to push the improvements into the homes of the workers, and protection is necessary to prevent the industry from being killed by foreign attack before efforts at improvement have borne fruit. There is no doubt that given adequate protection, in about 15 years, the Indian industry will have grown sufficiently large to supply the Indian demand and sufficiently strong to defy foreign competition.

Handloom weaving industry: Effects of the rise in the price of silk.—The Indian demand for silk is not only the demand for raw silk from the weaving industry of India, but also the demand of the Indian consumers for silk fabrics woven abroad. India imports at present about 19,900,000 yards of silk fabrics, chiefly from China and Japan, representing a value of a crore and fifty eight lakhs of rupees. These goods are mostly Crepes, Georgettes, Taffetas and Satins, which were not hitherto being manufactured in India. A year ago, as the result of careful investigation, a pioneer weaving factory was started at Mysore, and the experience of work there makes it certain that the fabrics which are at present being imported can be manufactured in India at a profit and in qualities which lose nothing by comparison with those foreign goods. There can be no doubt that the pioneering and development of the manufacture of high class silk fabrics in India which could displace foreign goods will greatly widen the scope for sericulture, adding what is practically a new province to the Indian weaving industry, and enriching the economic life of the country by providing fresh fields of employment.

In the Mysore State, weaving of silk fabrics on handlooms is carried on largely in Bangalore, Nelamangala, Magadi, Dodballapur, Hole-Narsipur, Molakalmuru, Gudibanda and Mulbagal. Except at Dodballapur and on a few looms at Bangalore, the weavers were formerly using exclusively Mysore silk yarn. In Bangalore and Dodballapur, however, weavers have recently taken to the use of imported Chinese Yarn and to this extent the latter has displaced local silk yarn. The number of silk looms working in the State is estimated at 8,000. Some six years ago, when the imports of foreign silk were normal, both in quantity and price, there were about 6,000 looms. An appreciable part of the increase has taken place in recent months. It seems obvious that this increase is almost entirely due to the large quantity of unprecedentedly cheap foreign silk now available to the weaver, which enables him to place on the market silk cloth at prices within the reach of even the poorer classes of customers. Whereas a saree of the pattern known as "Arlepet", used to sell formerly at prices ranging from Rs. 60 to Rs. 80, a very similar article made of imported silk now sells at anything between Rs. 30 and Rs. 40. This fall in price creates a demand for Arlepet sarees from people whose means did not permit them to buy the article at the former price. Since there has been no increase in the total number of looms, it is evident that the increase in the number of silk looms has been secured by the conversion of cotton looms to silk. The conversion

of cotton looms and of cotton users to silk as the result of a ruinous invasion of foreign silk cannot be considered a permanent or healthy development; but one encouraging fact seems obvious, namely, that in the weaving industry a certain amount of adjustment is possible and that weavers displaced from one kind of weaving can turn their hands and appliances to another.

The result of effective protection for silk yarn will necessarily be to raise the price of silk and consequently of silk fabrics. This is bound to bring about a contraction in the demand for silk fabrics, possibly to the same extent to which there has been an expansion in recent years owing to the influx of foreign silk. It may not be unreasonable to expect that the number of looms engaged in weaving silk goods will go back to a figure round about the former one of 6,000. This contraction need not, however, lead to any great distress, because just as cotton looms have been converted into silk looms now, silk looms might be reconverted to cotton looms in the future, provided of course, that the increased demand for high class cotton fabrics, which would be a substitute for the low priced silk goods, is not in the meantime allowed to be met by foreign imports of superior cotton fabrics. From this reasoning, it seems probable that a protective duty on silk yarn would not unduly affect the hand weaving industry, if protection is afforded, firstly, against foreign silk fabrics and secondly (and to a less degree) against high class foreign cotton fabrics which might be substituted for silk fabrics. It may perhaps be added that the contracted market for silk fabrics of which an index would be the probable decrease in the number of silk looms from 8,000 to 6,000 would be a firm and steady market and not one which depends for its existence on adventitious conditions brought about by unnatural causes.

N. RAMA RAO,

Director of Industries and Commerce.

BANGALORE,

Dated 9th January 1933.

ANNEXURE I.

I.—The cost of cultivation of one acre of rainfed mulberry garden per annum.

	Rs. A. P.	Rs. A. P.
1. Land Revenue		1 12 0
2. Manure		25 0 0
3. Labour—		
Digging	35 0 0	
Weeding	10 0 0	
Manuring	4 0 0	
Pruning	5 0 0	54 0 0
4. Miscellaneous		3 0 0
		<hr/>
		83 12 0
		or Rs. 84

The average production of leaves per acre of land is about 6,000 lbs. costing as above Rs. 84. This works out to about 2·7 pies per lb. of mulberry leaves.

II.—*Cost of production of cocoons from leaves of one acre of rainfed mulberry garden per year.*

	Rs. A. P.
1. Cost of silk worm seed	7 14 0
2. Cost of food for worms—Cost of mulberry leaves	83 12 0
3. Cost of appliances as trays, stands, chandrikes, etc.	5 0 0
4. Cost of extra labour for plucking leaves after fourth moult	18 12 0
5. Miscellaneous	2 13 0
	<hr/>
	118 3 0

If all the crops are successful, the yield of cocoons would be 375 lbs. on an average. Hence cost of production of 1 lb. of cocoons amounts to annas five only.

III.—*Cost of production of Charka silk.*

Details of expenditure per working day of eight hours per charka.

	Rs. A. P.	Rs. A. P.
1. Cost of 21 lbs. of cocoons at 5 annas per lb.		6 9 0
2. Fuel	0 10 0	
Water	0 4 0	
Contingencies	0 5 0	1 3 0

(Contingencies include “Gootum,” personal expenses for sale of silk, transport charges, cost of oil, thread and skein making, steaming of cocoons, etc.).

	Rs. A. P.	Rs. A. P.
3. <i>Labour for Reeling—</i>		
1. Reeler	0 9 0	
2. Turner	0 5 0	0 14 0
	<hr/>	
4. Marketing commission on silk		0 2 3
5. Cocoon brokerage		0 3 0
6. Transport of cocoons		0 3 0
		<hr/>
Total		9 2 3
Deduct cost of waste		0 2 3
		<hr/>
Daily production—1½ lbs. of silk: cost of production		9 0 0

Cost of production of 1 lb. of silk is Rs. 6.

IV.—Cost of production of Domestic Basin Silk.

Details of expenditure per working day of 8 hours—5 Basins.

	Rs.	A.	P.
1. Cost of 100 lbs. of cocoons at 5 annas per lb. .	31	4	0
	Rs.	A.	P.
2. Fuel	1	0	0
Water	0	10	0
Contingencies	0	6	0
3. Labour for Reeling—			
5 Reelers	2	8	0
3 Cookers	0	12	0
Turner	0	8	0
4. Marketing commission on sale of silk . .	0	7	6
5. Cocoon brokerage	1	0	0
6. Transport of cocoons	1	0	0
7. Miscellaneous—including oil, rent, railway freight, personal expenses for sales.	1	0	0
Daily yield—5 lbs. of 28/30 silk and 3 lbs. of silk waste	40	7	6
Deduct—Cost of 3 lbs. of silk waste at 6 annas per lb.	1	2	0
Cost of production of 5 lbs. of silk . .	39	5	6
Cost of production per lb. of silk . .	7	14	0

V.—Cost of production of Filature silk 28/30 denier.

Details of expenditure per working day of 9 hours—12 Basins.

	Rs.	A.	P.
1. Cost of 260 lbs. of cocoons at 5 annas per lb. .	81	4	0
2. Stiffing and other charges	10	4	0
	Rs.	A.	P.
3. Reeling charges—			
12 Reelers	6	0	0
12 Cookers	3	0	0
3 Knotters	0	12	0
1 Examiner	0	6	0
1 Skeiner	0	7	6
2 Waste preparers	0	8	0
4. Coal and Fuel	9	0	0
5. Water and power charges	2	4	0
6. Oil waste, etc.	0	12	0
7. Indirect charges	8	4	0
Daily yield—13½ lbs. of silk and 9 lbs. of waste.	122	13	6
Deduct—9 lbs. of waste at 8 annas per lb. .	4	8	0
Cost of production of 13½ lbs. of silk . .	118	5	6
Cost of production of 1 lb. of silk in Government Filature	8	12	0

ANNEXURE II.

General index numbers of Wholesale Prices of all commodities and raw silk.

Month.	1919.		1920.		1921.		1922.		1923.		1924.		1925.	
	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.
January . . .	173	108	202	146	170	157	169	160	171	166	179	149	171	113
February . . .	188	139	203	180	162	144	167	162	166	163	179	163	171	115
March . . .	197	120	194	160	161	137	173	165	165	165	180	171	170	116
April . . .	194	118	191	165	160	145	173	164	165	162	180	176	168	117
May . . .	195	139	193	173	163	138	175	190	162	163	180	168	168	102
June . . .	204	148	194	164	171	146	176	204	166	171	184	174	168	105
July . . .	204	150	187	154	174	159	180	188	167	170	183	165	168	105
August . . .	198	146	186	171	174	167	178	192	169	163	184	129	168	106
September . . .	194	143	180	186	172	160	174	184	170	165	183	126	166	111
October . . .	183	143	179	158	174	144	172	178	170	151	182	130	164	107
November . . .	187	143	184	155	173	156	172	169	176	149	183	130	163	110
December . . .	192	143	178	161	172	166	175	165	184	151	179	123	160	111

Month.	1926.		1927.		1928.		1929.		1930.		1931.		1932.	
	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.	A.	B.
January . . .	152	109	154	115	153	115	158	109	149	100	113	77	109	94
February . . .	148	112	155	134	154	110	156	115	145	100	109	74	111	90
March . . .	148	114	157	124	156	99	153	110	142	98	108	70	112	90
April . . .	147	124	155	126	155	99	153	108	141	97	107	69	110	87
May . . .	149	135	158	130	157	100	149	105	142	99	106	66	109	75
June . . .	154	140	162	129	159	98	149	102	141	98	104	66	108	66
July . . .	159	119	163	114	161	100	149	100	136	85	108	62	108	66
August . . .	157	114	159	112	161	96	149	100	130	76	109	59	108	63
September . . .	154	119	160	114	160	91	152	99	127	69	107	59	107	64
October . . .	153	110	163	104	165	99	153	98	128	65	107	64		
November . . .	153	105	164	108	161	99	151	96	121	58	111	78		
December . . .	155	108	160	113	157	102	150	100	117	62	110	92		

NOTE.—In Column 'A' General Index Numbers of prices of all commodities at Bangalore are given
 In Column 'B' Index Numbers of prices of raw silk at Bangalore are given.
 1913-14 is taken as the Base year.
 Prices in 1913-14 are taken as equivalent to 100.

ANNEXURE III.

Statement showing the export of silk and silk waste from Mysore during each year since 1915-16.

Year.	SILK.		SILK WASTE.		Total value in lakhs.
	Quantity in lbs.	Value in lakhs.	Quantity in lbs.	Value in lakhs.	
		Rs.		Rs.	Rs.
1915-16	378,102	25-90	308,484	0-82	26-72
1916-17	379,004	30-70	401,800	3-30	34-00
1917-18	377,282	35-40	75,932	0-70	36-10
1918-19	540,462	50-90	244,195	2-60	53-50
1919-20	521,110	59-60	721,764	8-90	68-50
1920-21	296,922	37-20	550,220	6-90	44-10
1921-22	638,780	77-90	549,318	5-90	83-80
1922-23	622,052	83-50	419,020	4-10	87-60
1923-24	895,276	100-82	619,674	6-04	106-86
1924-25	770,964	70-73	736,032	6-28	77-01
1925-26	930,618	75-33	692,654	5-07	82-40
1926-27	746,692	66-87	613,278	6-10	72-95
1927-28	670,760	58-01	480,848	2-25	60-26
1928-29	619,650	52-30	493,394	2-50	54-80
1929-30	552,844	42-68	462,890	2-27	44-95
1930-31	383,440	23-13	234,720	0-59	23-72
1931-32	367,440	22-20	266,560	0-67	22-87

(2) Letter No. D. 4-8/32-33, dated the 3rd February, 1933, from the Director of Industries and Commerce in Mysore.

I have the honour to forward herewith six copies of my replies to the first set of Questionnaire (manufacturers and commercial bodies) issued by the Tariff Board, in connection with their enquiry into the Indian Sericultural Industry.

Enclosure.

REPLIES TO QUESTIONNAIRE ISSUED BY THE INDIAN TARIFF BOARD IN REGARD TO SILK INDUSTRY IN INDIA.

1. The Silk Industry of Mysore has been in existence for over a century and is practised in the districts of Bangalore, Mysore, Tumkur and Kolar in about 2,500 villages out of 19,000 villages in the State. Sericulture is the largest and most important cottage industry in the State, and fits in admirably with agriculture which is the main occupation. It is practised by small agriculturists as a subsidiary occupation, and affords profitable and steady employment throughout the year for women and children at home and gives occupation to the raiyats during agricultural off seasons. A well established mulberry garden withstands drought better than field crops, and in bad years, rearing silk worms has often saved entire taluks from acute general distress consequent on insufficient rainfall. This industry undoubtedly gives economic stamina to the population practising it. The returns from the silk industry are absolutely necessary for the subsistence of a large portion of the population in the State. Cultivation of mulberry, rearing of silk worms, reeling of silk, marketing of silk and weaving of silk give occupation to a large number of families. In addition to the people

directly engaged in the industry, a large number of families find employment in such subsidiary operations connected with sericulture as plucking leaves, digging, weeding, pruning and manufacture of appliances in sericultural villages. It is difficult to make an accurate estimate of the number of families indirectly benefited by this industry, but it may be safely said that in sericultural villages, there is hardly any family which does not contribute to the industry at one stage or another and the result is that sericultural villages are ordinarily more prosperous and show more of alertness and life than others. Taking into consideration the total area under mulberry, the exports of raw silk from the State and the number of handlooms devoted to the weaving of silk fabrics, it may be roughly estimated that the silk industry in its several branches gives occupation to about two lakhs of families in the State under normal conditions.

There are about 37,000 acres under mulberry now. A family on an average has half to three-fourths of an acre of mulberry. This gives about 60,000 families employed now in silkworm rearing. There are 4,000 charkas in the State, on the average, two charkas giving employment to five families directly, or the number employed in reeling comes to about 11,000 families inclusive of proprietors, etc. Number of families indirectly affected is about 60,000 (digging of gardens, picking of leaves, manufacture of appliances, etc.). Weaving and its connected operations give occupation to 20,000 families. The number of families directly and indirectly benefited is estimated to be about a lakh and a half at present.

2. The Sericultural Industry properly so called comprises all operations from the cultivation of mulberry to the marketing of raw silk. These operations may be grouped as follows:—

1. Mulberry growing and silkworm rearing.
2. Silk Reeling.
3. Trade.

The rearing of worms is carried on side by side with the cultivation of mulberry. The rearer, as a rule, grows his own mulberry, and it is rarely that mulberry is grown for sale though occasionally surplus leaves or surplus worms are sold to neighbours who require them. Generally, mulberry is raised over small plots of land ranging from half or three-fourths of an acre to ten acres. It is grown both as a dry crop and as an irrigated crop. The principal capital investment required in sericulture is the mulberry garden; the rearer's other capital requirements are few. His house is his place of work and his wife and children furnish the labour required. This is what makes sericulture a perfect home industry. It may sometimes happen that he requires some money and this he usually borrows for short terms from the reeler who is the prospective purchaser of cocoons. It is, however, rarely that the money is required for sericulture. It is more often wanted for other purposes social or agricultural, and the agriculturist is frequently in need of cash between harvest and harvest and sericulture only gives him credit-worthiness. The Sericultural Co-operative Societies have also begun to assist him to some extent. As soon as the cocoons are ready, the rearer sells the same to the dealer in cocoons and receives the amount due to him less the advances, if any, received from the dealer. In normal times, when the trade is brisk, he usually gets ready money against the delivery of the cocoons. When trade is dull, it is sometimes necessary for him to allow time to the reeler to reel the cocoons and sell the silk.

The reeling establishments are located all over the silk tract. The smallest unit is a CHARKA consisting of one basin and one reel, and a large number of establishments are of this size; but there are also a fair number of larger establishments consisting of anything from 5 to 30 reels. The reeler sometimes makes his own arrangements with the rearer of worms for the supply of green cocoons but the usual practice is to purchase through a middleman or broker who receives a commission of about two annas per 12 lbs. and the reeler has also to bear the cost of transportation of the

cocoons to his place. This varies, according to the distance to be covered, from one anna to two annas per 12 lbs. The silk reeled off the cocoons is converted into hanks and disposed of to the merchants either locally or in distant centres of trade. The reeler generally gets advances from the merchants dealing in raw silk and on these advances, he pays interest ranging from 10 to 12 per cent. He has to give a commission of one and a half annas per pound. When the trade is brisk or if the merchants have already booked forward orders, the reeler gets cash against the delivery of raw silk. When the demand is slack, or if the merchant has not got any orders on hand the reeler will have to wait till the raw silk deposited by him with the merchant has been sold. When it is finally sold, the amount realised less the advance and interest accruing on it is adjusted to his account.

The owner of the silk KOTI is partly a merchant and partly a broker. The capital invested by him is family capital supplemented with capital borrowed from a private banker or a Joint Stock Bank. The merchant gets raw silk from the reelers in the interior. He makes advances to the reelers and charges them interest on such advances ranging from 10 to 12 per cent. He gets a commission of one and a half annas per pound from the reelers and an equal amount from his customers in different places. He sends out silk in bales of 70 lbs. on an average. Time given to the buyer depends upon his financial standing. Generally, the merchant insists upon an early payment. Interest is charged in some cases, the rate varying from eight to twelve per cent.

3. The maximum attainable under the present organisation is 155 lakhs of pounds of raw cocoons and about 12 lakhs of pounds of charka silk during 1931-32:—

Year.	ESTIMATED ACTUAL PRODUCTION AND VALUES.			
	Quantity of cocoons in lakhs of lbs.	Value of cocoons in lakhs of Rupees.	Quantity of silk in lakhs of lbs.	Value of silk in lakhs of Rupees.
1926-27	150-00	88-00	11-50	110-20
1927-28	130-00	75-00	10-00	90-00
1928-29	120-00	62-00	9-20	73-60
1929-30	114-40	55-00	8-80	69-30
1930-31	111-80	35-00	8-60	51-60
1931-32	96-20	30-00	7-40	41-62

Year.	Estimated maximum production.	
	Quantity of cocoons in lakhs of lbs.	Quantity of silk in lakhs of lbs.
1926-27	230-00	17-75
1927-28	232-00	17-00
1928-29	203-00	15-50
1929-30	193-00	15-00
1930-31	178-00	13-70
1931-32	155-00	12-00

The estimated maximum production is calculated taking into consideration that the rainfall was normal, all the crops harvested successful and market fair and steady. The variations between the estimated maximum production and the actuals are attributable to failure of, or untimely rains, unsuccessful harvests of cocoon crops due to inadequate or bad supply of seed, market for silk not being steady, or to competition of foreign silks.

4. The silk worm rearers in Mysore, generally rear the Mysore race of worms. At the outset, we wish to point out that there is a difference between the total silk content and the reelable silk content. The total silk content consists of the entire shell of the cocoon after the pupa is removed. Out of this shell the floss on the top and the membrane in the interior though silk in composition is unreelable and constitutes the reeling waste of commerce. The reelable portion consists of a continuous filament varying in length from 300 to 750 yards according to race and quality. There are also seasonal variations. The average length of filament in Mysore cocoons is about 350 yards. What follows should be read in the light of above explanation. The silk content of the Mysore cocoons is about 12·3 per cent. Of late, hybrids, between pure Mysore and Chinese and Japanese races of worms supplied by the Department of Sericulture are being reared by the raiyats. The silk content of cross breed cocoons varies between 13·01 and 14·6 per cent. Pure Japanese and Chinese races are reared by the Department of Sericulture in Government Silk Farms for preparing hybrid layings. The following statement gives detailed information regarding the silk content of the various races reared in the Government Farms in Mysore.

Statement regarding the total rearing period and the silk content of silkworms reared in Government Silk Farms.

Race.	Total rearing period.	Percentage of silk content.
1. Pure Mysore	33 days.	12·3
2. Chinese Univoltines	29½ „	14·3
3. Chinese Bivoltines	30 „	13·1
4. Japanese Univoltines	30 „	14·6
5. Japanese Bivoltines	30 „	14·2
6. Cross Breeds (Mysore)	30 „	13·3
7. Mysore X Chinese Univoltines F ₁	26 „	13·2
8. Mysore X Chinese Bivoltines F ₁	26 „	13·7
9. Mysore X Japanese Univoltines F ₁	26 „	14·06
10. Mysore X Japanese Bivoltines F ₁	26 „	14·6

No filatures in Mysore closed down for want of an adequate supply of cocoons. Work in the filature in Mysore as well as in country charkas has had to be suspended for some time during each of the last few years due to want of demand for Mysore silk and due to fall in prices consequent on the large imports of cheap foreign silks.

5. Mysore has a distinct race of silk worms. These worms are multi-voltine, feed on mulberry leaf and produce greenish cocoons, which yield a beautiful lustrous silk of excellent quality. The silkworm reared in Mysore is indigenous to Mysore. Of late, hybrids between pure Mysore and pure Japanese or Chinese races are also being reared by the sericulturists but these form at present a very small part of the total seed supply. The cocoons produced by these hybrids are used for reeling only. The pure Chinese and Japanese races used for the preparation of hybrid layings are univoltines and bivoltines. These races are bred pure by the Sericultural Department for seed purposes and no deterioration has been noticed in the stock after several years of continuous rearing, but small quantities of fresh seed are also imported from time to time for re-inforcing and replenishing the stock.

The raiyat or the rearer purchases seed cocoons or disease free layings. It takes about ten days for the eggs to hatch and during this period, they are kept at the ordinary temperature of the rearing house, care being taken to protect them from the attacks of lizards, ants, etc. The young worms, so soon as they hatch out, are fed with tender mulberry leaves cut into very fine pieces. During the first ten days, they are fed once in two hours

and require very careful attention. By the end of this period, they will have grown sufficiently to be fed with slightly more mature leaves cut to a larger size. In about thirty days from the date of hatching, the Mysore worm will be ready to spin its cocoon. No feeding is necessary at this stage. The ripe worms are mounted on "CHANDRIKES" or spinning trays where each worm builds a cocoon around itself. Three days later the cocoons are removed from the chandrikes and are ready for sale. The hybrid worm forms the cocoon in about 25 days after hatching.

During the larval stage, the worm casts off its skin, four times, growing bigger and bigger after each moult. As worms grow bigger, they require larger space and over-crowding has to be avoided. Bamboo trays are used for rearing the worms and the trays are kept one above the other on stands. It is very necessary that the rearing room should have sufficient light and ventilation. The worms should be protected against the attacks of ants, lizards, rats, etc. During the rearing, worms develop so rapidly that young worms which occupy one tray will occupy 20 trays when they grow to maturity. After the fourth moult the worms eat for ten days and during this period, they consume five times the quantity of leaf consumed during the preceding 20 days. Entire leaves may be fed to the worms after the fourth moult.

6. The rearing houses constructed by the Department of Sericulture in their silk farms are "PUCCA" buildings with arrangements for suitable ventilation. These cost about Rs. 3,000 each. These rearing houses are of substantial construction to admit of very thorough disinfection, because all seed operations originate from them. Raiyats' rearing houses would cost only a tenth as much. The sericulturists do not construct separate rearing houses. The silk worms are reared in a portion of the dwelling house. The following appliances are necessary for rearing silk worms:—

- | | |
|--------------------------------|---------------------------------|
| 1. Stand. | 6. Gunny bags or Hessian cloth. |
| 2. Trays. | 7. Lantern. |
| 3. Chandrikes. | 8. Rat trap. |
| 4. Bamboo Baskets. | 9. Earthen or iron pots for |
| 5. Chopping knives and Boards. | keeping stands. |

The stands are made of jungle wood supports, with bamboo cross bars, each stand holding 10 to 12 trays of silk worms. The trays and chandrikes are entirely made of bamboo. All these appliances are available locally. The raiyat generally does not have the full complement of chandrikes necessary for his use. In addition to his own, he hires a few from his neighbours paying a rental of one to two annas per day per chandrike, the rate depending upon demand.

The cost of equipment for rearing two ounces of seed at a time varies from Rs. 45 to Rs. 60 according to localities.

Stands last between 5 to 8 years.

Trays last between 2 to 3 years.

Chandrikes last between 3 to 5 years.

Knives last between 1 to 2 years.

Chopping Boards last between 1 to 2 years.

Baskets and gunny bags or other cloth need renewal once in six months. The charges on appliances for rearing silk worms from an ounce of seed vary from Re. 1 to Rs. 2 according to locality and other conditions.

Rearing Houses of silkworm rearers can be improved as under:—

1. Providing better ventilation and more light.
2. Effecting changes to provide for disinfection.
3. Improving the flooring to prevent dust.
4. Increasing the interspaces in the stands to admit of sufficient ventilation and light.

5. Reducing the size of trays in some localities to admit of easy handling.
6. Improving the chandrikes by having the spirals closer, and equidistant to minimise quantity of floss during spinning of cocoons.
7. Making knives thinner and broader and increasing the size of chopping board.

(b) Statement showing the results of rearing silkworms of different races in Government Silk Farms.

No.	Race.	Total rearing period, Days.	No. of days in the 5th stage.		Yield of cocoons per 1 oz. of seed.	Number of cocoons per lb.	Length of filament in revolutions in eprouvette.	Percentage of silk content.	Denier.
			days.	hrs.	lbs.				
1	Pure Mysore . . .	33	8	6	56	600	350	12.3	1.90
2	Chinese Univoltines .	29½	5	12	80	490	460	14.3	2.20
3	Chinese Bivoltines .	30	7	..	792	485	512	13.1	1.75
4	Japanese Univoltines .	30	5	..	75	470	525	14.6	2.41
5	Japanese Bivoltines .	30	5	..	88	500	500	14.2	2.42
6	Fixed races (Mysore) Cross breeds.	30	5½	..	81	515	450	13.3	1.50
7	Mysore X Chinese Univoltines F ₁ .	26	5	..	70	475	540	13.2	2.00
8	Mysore X Chinese Bivoltines F ₁ .	26	5	..	70	475	525	13.7	2.00
9	Mysore X Japanese Univoltines F ₁ .	26	4½	..	72	480	495	14.06	1.86
10	Mysore X Japanese Bivoltines F ₁ .	26	5	..	70	480	600	15.6	2.01

7. The methods of rearing in foreign countries and here do not vary in essentials. In some countries a few variations occur from the standard method of rearing. In Japan for the spring crop after the third and fourth moults, worms are fed on branches in continuous single beds in open large rearing rooms or pandals with a view to minimise extra labour charges on picking of leaves. This method is possible only in countries where one or two crops only are reared during the year, and where labour charges are usually high. All the sericulturists in Japan adopt scientific methods of rearing as 95 per cent. of them are literate and can follow the instructions issued by the Sericultural Institutions. In China, the methods of rearing are similar to those of ours. Generally, it may be mentioned, that our method of rearing is superior to that of South China in as much as attention is paid to suitable supply of seed, spacing of worms, feeding of worms and hygienic principles.

8. The silk worm generally reared by sericulturists is indigenous to Mysore. Of late, hybrids between Mysore and pure Japanese or Chinese races are also being reared by the sericulturists. The pure Chinese and Japanese races are reared by the Sericultural Department for seed purposes and small quantities of fresh seed of these races are imported from time to time for reinforcing and replenishing the stock.

The production of seed is organised separately from the production of reeling cocoons. The organisations for supply of seed may be classified as follows:—

- | | |
|--------------------------|---|
| 1. Seed Campaign. | 4. Aided Grainages. |
| 2. Chawki Rearing. | 5. Sericultural Co-operative Societies. |
| 3. Government Grainages. | |

Seed Campaign.—This is an important part of the work of the department and which has organised a system, the salient features of which are:—

1. Supply of disease free layings (Cellular) to selected rearers in seed areas.
2. Careful supervision and control of the rearing operations.
3. Selection of the best cocoons for further propagation.
4. Distribution of the seed cocoons to the rearing areas.

This system ensures progressive improvement by selection and exercise of effective control about the quality of seed available to industry. For a more detailed description, kind attention is invited to the Printed Note on the "Development of Sericulture in Mysore", of which a copy is attached for facility of reference.

Chawki Rearing.—In some parts of State there is a class of silkworm rearers which specialises in procuring seed cocoons or disease free layings and rearing young worms till the end of first moult. The chawki worms are sold to the sericulturists who rear the worms for producing reeling cocoons. There are obvious advantages in this system as the "Cawki" rearer pays special attention to young worms when great care is necessary to avoid losses in the further processes of rearing. Trained staff of the department is in intimate touch with these people and guides them in their work. For other particulars of the organisation please see the Printed Note on the "Development of Sericulture in Mysore".

The cost of production of one ounce of disease free layings in Government Grainages is noted below:—

Year.	Cost of production per oz. of D. F. L.		Sale price of one ounce of Mysore layings.		Sale price of a cross breed layings per oz.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
1925-26	3	9 6	1	6 4	1	6 4
1926-27	2	15 7	1	6 4	1	6 4
1927-28	2	15 6	1	6 4	1	6 4
1928-29	2	13 8	1	6 4	2	1 7
1929-30	2	9 1	1	6 4	2	1 7
1930-31	2	3 7	1	6 4	2	1 7
1931-32	2	1 3	1	6 4	2	1 7

N.B.—From November, 1932, the sale price of Mysore and Cross Breed Layings is reduced to Re. 1-0-9 and Re. 1-12 per ounce respectively.

The cost of production of one ounce of seed in Aided Grainages is noted below:—

Year.	Cost of production of 1 oz. of Mysore layings.		Sale Price.	
	Rs.	A. P.	Rs.	A. P.
1928-29	1	8 9	1	6 4
1929-30	1	7 3	1	6 4
1930-31	1	3 4	1	0 9
			to	
			1	6 4
1931-32	1	0 9	1	0 9

N.B.—The aided grainages receive a subvention from Government of Rs. 5 per thousand disease free layings.

9. The Mysore race of worms are multivoltine. The Japanese and Chinese races reared in the farms are univoltines and bivoltines. Five to six crops of multivoltines are reared in a year. By adopting artificial hatching methods of eggs five to six crops of univoltine and bivoltine races also are reared in the Government Silk Farms.

An ounce of Mysore Silkworm seed gives about 42 to 45 thousand worms. Per acre of rainfed garden per year, the quantity of seed required is about $7\frac{1}{2}$ ounces and per acre of irrigated garden, the quantity varies between 12 and 13 ounces per year.

The total quantity of seed required during 1931-32 was 310,000 ounces for the State.

10. The silkworms in Mysore are fed on mulberry leaves. The rearer grows his own mulberry on his own land and it is rarely that it is grown for sale, though occasionally surplus leaves or surplus worms are sold to neighbours who require them. Mulberry is generally propagated by means of cuttings and grown in the form of bushes. The initial expenditure for planting a new mulberry garden is from Rs. 75 to Rs. 100. Mulberry is grown both on dry land and on irrigated land. In the case of dry cultivation, the plant depends upon rainfall for water supply. Irrigated gardens get their water supply either from tanks, shallow wells along river banks or deep wells. The plants are pruned once a year. The cultural operations comprise digging, manuring, weeding, etc., and have to be attended to at fixed intervals. Generally, gardens are given a digging after harvesting a crop of leaves. Manure is applied either once or twice a year. Farm yard manure, silkworm litter and artificial manures such as ammonium sulphate and groundnut oilcakes are used.

The first crop of leaves after pruning is plentiful and the leaves are of good quality and size. These leaves would be ready for harvesting in about two to two and half months after pruning. As the worms take one month from start to finish, the leaves would be completely harvested in three to three and half months after pruning. The next crop of leaves will be ready for harvest in about a month. Generally, four to five crops of leaves are harvested from the rainfed gardens and six to seven crops from irrigated gardens. The size and yield of leaves would diminish after each harvest. The irrigated gardens yield leaf during summer months also. These gardens have to be protected against the depredations of cattle. The rainfed gardens do not yield any leaves during summer.

The system of planting mulberry gardens and of harvesting leaves varies with each locality. In Kolar and parts of Bangalore District, the mulberry cuttings are planted close together in lines one foot apart to prevent wastage of water and the plants are cut down to the root at each harvest. In other parts the mulberry is planted in pits nine inches apart and the rows are about two feet apart. Only the leaves are plucked off the twigs, at each harvest and the plants are pruned to the ground once a year.

Roughly one acre of rainfed mulberry garden yields about 6,000 lbs. of leaves in a year and the cost of cultivation would amount to Rs. 84 per year. An acre of irrigated garden yields ten to fifteen thousand pounds of leaves per year, the yield depending upon the quantity of manure applied and the cultural operations carried on. The cost of cultivation in this case varies from Rs. 130 to Rs. 200 per annum.

Mulberry is a deep rooted plant and yields leaf for about 15 years when once planted. The number of bushes per acre varies according to the system of cultivation. In dry lands in Mysore District the number is between 4,000 and 5,000 per acre. In gardens on river banks and tank beds the number varies between 8,000 and 10,000 and in Kolar System it may vary between 60,000 and 80,000 per acre.

11. The initial and recurring expenditures on mulberry gardens vary according to the locality and systems of plantation. Approximate averages are given below:—

Initial expenditure per acre of Mulberry Garden.

	Rainfed gardens.	Tank irrigated gardens.	Deep well irrigated gardens.	Gardens irrigated by shallow wells along river banks.
	Rs. A.	Rs.	Rs.	Rs.
Ploughing, digging, levelling, etc.	20 0	50	50	42
Manure and Manuring . . .	25 0	20	60	10
Preparing rows	3 0	..	..	..
Cost of cuttings	6 8	20	15	..
Planting charges	2 8	15	10	6
Watering	14 0	3	30	30
Weeding, etc.	2 8	..	..	..
Miscellaneous . . . . .	..	..	..	5
TOTAL .	73 8	108	165	100

Recurring expenditure per acre of garden.

	Rainfed gardens.	Tank irrigated gardens.	Deep well irrigated gardens.	Gardens irrigated by shallow wells along river banks.
	Rs. A.	Rs.	Rs. A.	Rs.
Land Revenue	1 12	6	5 0	5
Ploughing and harrowing or digging.	23 0	15	* 20 0	35
Manure and manuring . . .	25 0	55	32 0	45
Pruning	3 0	..	8 0	5
Weeding	5 0	..	..	4
Planting failed pits and miscellaneous.	5 8	..	15 0	..
Irrigation . . . . .	..	10	62 8	50
TOTAL .	63 4	86	142 8	144

The raiyats do not maintain accounts. A statement indicating expenditure incurred in the gardens attached to the Government Silk Farms is given below:—

Year.	Manure and manuring.	Digging.	Weeding and other cultural operations.	Pruning.	Irrigation.	Total expenditure per acre per year.	Total yield of leaves per acre per year in Lbs.	Average total cost of production of one lb. of leaf.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Lbs.	Pies.
1928-29 .	53 4 8	121 7 9	24 1 6	23 4 8	68 15 4	219 1 11	9,373	5·8
1929-30 .	54 11 6	115 2 5	20 10 3	21 9 1	62 11 6	274 12 9	8,009	5·0
1930-31 .	63 1 9	140 12 11	26 7 6	23 15 9	87 5 9	346 11 8	9,660	6·8
1931-32 .	59 10 2	121 8 5	26 9 2	26 14 8	83 4 2	317 14 7	8,922	6·7
1932-33 .	30 2 4	70 4 0	16 9 4	13 12 0	39 1 0	169 12 8	7,475	4·4

Statement pertaining to costs of cultivation of one acre of mulberry garden five years or so ago by raiyats.

	Five years ago dry land.	Seven years ago tank irrigated garden.	Five years ago deep well irrigated gardens.
	Rs. A.	Rs. A.	Rs.
Land Revenue	1 8	6 0	5
Ploughing, digging, etc. . . .	37 8	37 8	27
Wedding, etc. . . .	3 4	...	...
Weeding, etc. . . .	3 4	50 0 27 0	... 43
Pruning	4 0	...	10
Replanting failed pits	7 8	...	12
Contingency	4 0	...	...
Irrigation charges . . . .	...	14 0	82
Miscellaneous . . . .	...	...	7
Total	92 12	134 8	186

The cost of cultivating mulberry per acre now is given in reply to question No. 10. Practically, there are no alternative crops to mulberry cultivation and silkworm rearing. Generally, where mulberry is cultivated dry, jawar, ragi and horsegram are cultivated in dry land. In irrigated lands the crops cultivated are paddy, sugar-cane, potato and onions. Sugar-cane and potatoes require heavy initial expenditure and are beyond the means of ordinary raiyats. They also require more irrigation, long period of waiting and a special system of rotation. They are besides unsuited to the conditions which prevail in the sericultural tracts and unsuited also being worked in as subsidiary occupation, finding employment to the whole family and bringing in quick returns. These crops especially potatoes involve serious risks, whereas mulberry does not require

so much capital and gives money at short intervals. The cost of cultivating and the receipts from one acre of the above are given below :—

	Rs. A.
<i>Expenditure—</i>	
Jawar	47 0
Ragi	46 3
Sugar-cane	135 0
Potatoes	256 0
<i>Receipts—</i>	
Jawar	49 0
Ragi	50 0
Sugar-cane	165 0
Potatoes	300 0

12. The following steps have been taken by the Sericultural Department to reduce costs of production of mulberry leaf and to improve the quality of leaf :—

1. Manurial experiments are being conducted with a view to advise the raiyats as to the most suitable manures.
2. Improvement in cultural operations with a view to increase the yield of leaf per acre.
3. Improvement of Mysore Race of mulberry by selection.
Introduction and propagation of better varieties of mulberry from China and Japan.
5. Improvement of Mysore mulberry by grafting, budding, etc.
6. Propagation of Mysore mulberry by means of seedlings.
7. Popularisation of mulberry topes.
8. Eradication of pests affecting mulberry.

13. On an average about 30 per cent. of worms brushed are lost in rearing. The chief causes are the following :—

1. Loss of young worms in cleaning beds.
2. Loss of worms due to enemies such as lizards, cockroaches, rats, ants, etc.
3. Loss of worms due to minor disease such as grasserie, etc.

14. In Mysore the silkworms suffer from the following diseases :—

- | | |
|---------------|-----------------------------------|
| 1. Pebrine. | 3. Grasserie. |
| 2. Flacherie. | 4. Muscardine which is very rare. |

Pebrine.—The cause of this disease is a Sporozoan called *Nosema Bombycis*. This disease is transmitted from the mother moth to the offspring and is also highly contagious. If the disease appears once, the subsequent crops are likely to suffer unless preventive measures are adopted. The remedies adopted are :—

1. Use of examined layings by Casteur method.
2. Hygienic care during rearing
3. Disinfection of rearing houses and appliances.

Flacherie.—This disease indicates several kinds of Bacteria of which *Bacillus Ishiwatta* Sotto is the predominant, and is brought about by sudden variations in temperature and humidity, bad or unsuitable quality of mulberry leaf fed to the worms and faulty or negligent methods of rearing especially in the early stages.

To prevent and minimise the incidence of flacherie it is necessary to select seed from vigorous stock to rear carefully in the earlier stages and to

provide a suitable supply of leaves. The Sericultural Department educates the raiyat in proper methods of rearing and instructions are imparted to the rearer at his very doors.

Grasserie.—The pathology is obscure, but the exciting cause is brought by improper feeding of the grown up worms, with tender leaves or with leaves whose moisture content is very high. This disease appears when there is sudden rainfall after a dry spell when worms which have been fed with leaves, with low moisture content are suddenly fed with leaves having high moisture content. This disease does not cause much loss in Mysore.

15. Climate is no doubt one of the most important factors. But the economic environment is no less important. There is no such thing as a constant unchanging ideal in the matter of temperature and humidity as much depends upon the race of worms to be reared. Even in the combination of temperature and humidity, a certain amount of relative adjustment is possible, that is to say, a slight variation in one case can be corrected by controlling the other factor. It may be said that a temperature between 75 degrees F. and 80 degrees F. combined with humidity of 50 per cent. and 70 per cent. is quite favourable for rearing worms. But with proper care worms can be successfully reared over a wide range of variations. One of the problems of the Department is to evolve hybrids suitable for every season of the year and very satisfactory progress has been made in this direction. The Mysore race itself can be reared in all the Mysore seasons except perhaps in the Malnad where the rainfall reaches up to 350 inches. In Japan during the several rearing seasons, temperature and humidity are as given below:—

	TEMPERATURE.			HUMIDITY.		
	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.
	Degree.	Degree.	Degree.	Per cent.	Per cent.	Per cent.
Spring Rearing .	78 F	65 F	70 F	94	50	75
Autumn rearing.	78 F	75 F	80 F	90	50	80

Japan is the premier silk producing country in the world.

In Mysore City which may be taken as typical of conditions of the Sericultural tracts of the State, the temperature and humidity conditions are noted below:—

TEMPERATURE.			HUMIDITY.		
Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.
Degree.	Degree.	Degree.	Per cent.	Per cent.	Per cent.
95 F	65 F	72 F	90	30	50

The climatic conditions in Mysore are very favourable for the development of sericulture.

16. The average yield per ounce of seed is about 50 lbs. for Mysore race of worms and for cross breeds about 70 lbs. This is the average yield obtained by the Sericulturists who use disease free layings, and much higher yields have been got in the silk farms and by individuals. The record is 143 lbs. got by a raiyat in Channapatna area.

17. The sericulturists do not maintain accounts and they cannot give figures from year to year. The approximate figures for rearing one ounce of seed, five years ago and now are given below:—

	T.-Narsipur Area—dry.	Channa- patna Area —River garden.	Chikballa- pur—well irrigated.	Kunigal seed area (dry).
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Cost of seed	1 6 7	1 6 5	3 4 0	1 6 6
Cost of labour	2 13 0	1 14 0	3 0 0	3 0 0
Cost of leaves	12 8 0	11 1 4	15 6 10	18 3 0
Cost of appliances . . .	1 8 0	0 11 5	2 4 8	2 4 8
Other expenditure . . .	0 6 0	0 4 0	0 8 0	0 9 5
TOTAL	18 9 0	15 5 2	24 7 6	25 7 7
NOW.				
Cost of seed	1 0 9	1 6 5	2 0 0	1 0 9
Cost of labour	2 4 0	1 14 8	2 0 0	2 6 0
Cost of leaves	11 8 0	12 0 0	11 10 9	14 9 0
Cost of appliances	1 0 0	0 11 5	1 14 4	2 4 8
Other expenditure	0 4 0	0 4 0	0 4 0	0 9 5
TOTAL	16 0 9	16 4 6	17 13 1	20 13 10

Generally, the members of the family attend to picking of leaves till the worms pass the fourth moult as the quantity of leaf required up to that stage is very small. The feeding of the worms in all the ages is attended to by the members of the family in addition to their household duties.

A statement indicating the expenditure incurred on rearing in Government Farms is given below :—

No.	Year.	No. of layings reared.	EXPENDITURE INCURRED ON REARING DURING THE YEAR.										Total expendi- ture incurred on the rearing.	Total yield of coccons in lbs.	Average cost of producing coccons from one oz. of seed (for 50 lbs. of coccons).
			Cost of seed.	Mulberry leaves used.		Labour.	Cost of appliances.	Other expenses.							
				Quantity.	Cost.										
									Rs. A. P.	Lbs.	Rs. A. P.	Rs. A. P.			
1	1927-28	.	1,118	12 8 5	14,000	546 14 0	134 5 8	11 7 0	13 10 6	718 13 6	420	85 9 2*			
2	1928-29	.	5,703	61 12 3	61,925	2,025 6 4	380 15 0	77 0 0	80 2 0	2,605 3 7	2,624	48 11 2			
3	1929-30	.	6,883	83 5 6	76,922	2,735 2 6	357 13 0	52 8 0	53 3 10	328 0 10	3,102	52 12 6			
4	1930-31	.	8,112	38 12 7	1,76,333	2,919 15 7	415 4 0	41 2 0	113 7 2	3,578 9 4	3,016	58 1 2			
5	1931-32	.	5,326	62 13 6	57,984	1,923 4 10	286 4 6	24 6 0	28 1 9	2,348 14 7	2,365	49 7 8			
6	1932-33 (up to end of December 1933 only).	.	2,240	26 13 11	21,820	721 2 9	123 2 0	20 12 0	37 3 4	749 2 0	859	43 9 6			

* Only Channarayana Farm.

N.B.—Obviously this has no relation to rayat's rearing. The rearings were for a particular purpose under special precautions and highly paid labour was employed throughout. Some of the rearings were of an experimental nature.

18. About 97 per cent. of the cocoons produced in the State are used for reeling, and three per cent. for seed purposes. The seed required by the Kollegal Taluk, Madras Presidency, is supplied from the Mysore area. The reeling cocoons are sold by weight and seed cocoons by number. Generally, the seed cocoons fetch higher prices than the reeling cocoons. At present reeling cocoons sell at five annas per pound and 1,000 seed cocoons at twelve annas to one rupee—1,000 seed cocoons weigh a little less than two lbs.

19. The rearer sells his cocoons to a reeler or dealer in cocoons. He has to sell the cocoons at once irrespective of the state of the market, as moths will emerge and the cocoons become unfit for reeling purposes.

The average prices of cocoons for the past nine years are given below:—

	Per lb. As. P.		Per lb. As. P.
1924-25 . . .	10 2	1929-30 . . .	7 6
1925-26 . . .	9 8	1930-31 . . .	4 7
1926-27 . . .	9 6	1931-32 . . .	5 0
1927-28 . . .	9 3	1932-33 (up to end of December) . . .	4 10
1928-29 . . .	8 3		

The average production of raw silk and waste for 100 lbs. of raw cocoons in country charkas is about $7\frac{1}{2}$ lbs. and $3\frac{1}{2}$ lbs. respectively. The yield of silk depends upon the quality of silk produced.

20. In Mysore the following kinds of reeling machines are used for producing raw silk:—

1. Indigenous Country Charka.
2. Mysore Domestic Basin.
3. French and Italian Filature Basin.

The charka and domestic basins are worked entirely by hand.

In the filatures, the reels are run by power but the actual reeling work in all the machines is done by hand. About 94 per cent. of the silk produced in the State is reeled in country charkas, and the remaining by filatures and domestic basins.

Charka.—This consists of a wooden reel in frame work, the circumference varying from 60" to 120". But usually the circumference is 85". The charka has an iron axle at one extremity and is mounted on two wooden supports in which it turns when handled. This unit is fixed parallel to an oven which has an earthen or copper basin fixed into it for reeling cocoons.

There is a distributor attached to the "Charka" and there is a "*thar patti*", mounted on a bamboo having two holes through which the silk passes. The silk is wound round the "Charka" after taking a small twist.

The cocoons are steamed in bamboo baskets containing about 25 to 30 lbs., the basket of cocoons being kept on the reeling basin containing boiling water. Generally, it takes about 40 minutes to steam the cocoons. These steamed cocoons are spread in bamboo trays and used for reeling after two or three days. These can be kept for about ten to fifteen days depending upon seasonal conditions.

Reeling.—At a time a small quantity of steamed cocoons (about $\frac{1}{2}$ lb.) is taken and cooked in the reeling pan for about three to four minutes at a temperature ranging from 95 degrees to 98 degrees "F.". When the cocoons are properly cooked the loose ends are gathered and waste removed, and the true ends are passed through the "*thar patti*" and wound over the reel by turning the charka. The reeler keeps feeding the cocoon filaments to get the yarn. The operations are kept continuous and when threads break, the turner stops and joins the ends.

All these processes connected with reeling, i.e., cooking of cocoons, preparation of cocoons and reeling of silk are conducted in the same reeling

pan. This is a defect as the water is too hot for good reeling and not hot enough for cooking cocoons.

In addition to the reeler, there is a turner for every charka, and a coolie for every two or three charkas to supply water and fuel.

Domestic Basins.—These basins designed and patented by the Sericultural Department are made with a view to reel high grade silk which object is attained by having different basins for cooking and reeling. These operations need to be done at different temperatures to ensure better elasticity, tenacity and to afford facilities to the reeler to maintain uniformity in size while reeling and also to minimise breaks.

The thread catchers (*Jette Bouts*) are of a very simple but effective design driven by ordinary string passing over pulleys.

The Mysore Domestic Basin consists of copper cooking and reeling basins and arrangements for catching the threads and has a reel box behind the reeler. The reeling pan is about 18" x 10" x 3" of almond shape fixed into a wooden table covered with zinc sheets. The thread catchers (*Jette Bouts*) are mounted on a flat iron bar, and turned by means of threads to which motion is conveyed by means of a shaft turned by a hand driven fly wheel. The threads caught by the *jette bouts* pass through a system of pulleys giving a "Croissure" and are taken over the reel through a distributor which affords the necessary winding of silk on to reel in "Diamond" shape. Motion to the reel and the distributor is conveyed by means of a belt driven by the main fly wheel.

Cocoons are cooked in boiling water supplied from a small copper cauldron fixed on to the oven. The cooking basins are fixed to the same hearth to obtain the boiling temperature necessary for cooking cocoons. Hot water to reeling basins is supplied from the main cauldron and cold water supply is effected from the tank kept over the reel box. The required temperature in the reeling basin is maintained by mixing the two sources of supply to the required extent.

There is a separate cooker for cooking the cocoons. The reeler removes the waste and finds the true ends of the filament of the cocoons and feeds the number of cocoons required according to "Denier" of silk, passing the thread through the *Jette Bouts*. The thread passes through the system of pulleys affecting the *croissure* and is wound round the reel. *Croissure* removes to a certain extent moisture from the thread before it reaches the reel and gives cohesion to the thread reeled. The knotting of broken ends is done by the reeler himself.

Filature Basins.—In principle, these correspond to the above described Mysore Domestic Basins. But there are variations with regard to automatic brushing of cocoons "Jette Bouts" arrangements which are complicated and certain other details. The heating is done by distribution of steam. A knotter for every three basins is necessary in filatures.

21. The following statement shows the estimated total output of raw silk and silk waste together with their values during the past six years:—

Year.	PRODUCTION OF RAW SILK.		PRODUCTION OF SILK WASTE.	
	Lbs.	Value.	Lbs.	Value.
		Rs.		Rs.
1926-27 . . .	11,60,000	1,10,20,000	5,80,000	5,80,000
1927-28 . . .	10,00,000	90,00,000	5,00,000	2,50,000
1928-29 . . .	9,20,000	73,60,000	4,60,000	2,30,000
1929-30 . . .	8,80,000	69,30,000	4,40,000	2,20,000
1930-31 . . .	8,60,000	51,60,000	4,30,000	1,07,500
1931-32 . . .	7,40,000	41,62,500	3,76,000	92,500

18 to 20 lbs. of green cocoons are required to produce one pound of silk. For every pound of silk got about 0·7 lb. of waste is produced in the filature.

22. The initial cost of equipment of country charka is Rs. 10 to Rs. 15. It gives about $1\frac{1}{2}$ lbs. of silk per day and lasts with repairs now and then for about five years.

Mysore Domestic Basin.—A single basin unit costs Rs. 200 and is sold to Mysore raiyats at Rs. 130. Double basin unit costs Rs. 350 and is sold at Rs. 250, and five basin unit costs Rs. 800 and is sold for Rs. 600. One basin gives one lb. to $1\frac{1}{2}$ lbs. of silk per day according to the size of silk reeled. These basins are constructed to last about twenty years.

23. (a) The total works expenditure on reeling in Mysore Government Filature is given below:—

	Rs.	A.	P.		Rs.	A.	P.
1924-25	55,583	5	6	1928-29	41,098	5	8
1925-26	36,019	12	7	1929-30	78,027	15	6
1926-27	29,832	7	3	1930-31	51,658	2	2
1927-28	45,176	13	1	1931-32	34,332	14	6

These include depreciation charges also.



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(b) The cost of producing one lb. of raw silk in Mysore Filature is given below:—
By Government Filature, Mysore.

	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Cost of cocoons	13 5 6 Renditta 21 to 1	10 14 0 18 to 1	9 12 9 16-5 to 1	10 15 3 19 to 1	10 10 0 20-7 to 1	10 1 3 21-5 to 1	6 4 10 22 to 1	5 10 0 18 to 1
2. Cost of labour	1 7 2	1 10 11	0 14 3	1 0 8	1 1 6	0 15 0	1 0 0	0 13 11
3. Cost of power, light, fuel and water .	1 5 2	1 4 7	0 15 5	1 0 0	1 3 0	0 10 1	0 9 6	0 8 0
4. Cost of supervision and management .	2 5 11	1 1 1	1 7 6	0 15 7	1 2 6	0 10 9	0 14 0	0 14 0
5. Cost of repairs and maintenance . .	0 7 0	0 10 1	0 7 3	0 0 6	0 0 6	0 1 10	0 2 8	0 1 9
6. Selling expenses	0 2 5	0 2 9	0 3 9	0 0 9	0 1 0	0 0 6	0 1 9	0 1 4
7. Other expenses as oil and waste . .	0 13 6	0 13 5	0 12 6	0 1 0	0 1 0	0 1 10	0 2 4	0 2 0
8. Transport and stiling charges of cocoons	0 10 6	0 9 0	0 8 3	0 9 6	0 10 3	0 10 3	0 11 0	0 9 0
COST PER POUND OF SILK.	20 9 2	17 1 10	15 2 1	14 9 9	14 14 6	13 4 0	9 14 1	8 12 0

The cost of production per lb. of charka silk during 1931-32 is as follows :—

	Rs. A. P.
1. Cost of cocoons	6 9 0
2. Cost of labour	0 14 0
3. Cost of fuel	0 10 0
4. Cost of water	0 4 0
5. Cost of supervision and management	self
6. Cost of repairs and maintenance . . . . .	...
7. Selling expenses	0 2 3
8. Other expenses	0 11 0
Total	9 2 3
<i>Deduct—Cost of waste</i>	<i>0 2 3</i>
Net	9 0 0

Daily production of $1\frac{1}{2}$ lbs.

Cost of producing 1 lb. of silk is Rs. 6. The actual cost varies from place to place. The range of variation is between Rs. 5 and Rs. 6-4. The above are average figures.

The cost of producing 1 lb. of silk in domestic basin during 1931-32 is as follows :—

	Rs. A. P.
1. Cost of cocoons	31 4 0
2. Cost of labour	3 12 0
3. Cost of fuel	1 0 0
4. Cost of water	0 10 0
5. Cost of management	self
6. Cost of repairs, etc. . . . .	...
7. Selling expenses	0 7 6
8. Other expenses	3 6 0
Total	40 7 6
<i>Deduct—Cost of 3 lbs. of silk waste</i>	<i>1 2 0</i>
Net	39 5 6

Cost of production of 5 lbs. of silk per day 39 5 6

Cost of production per lb. of silk 7 14 0

24. The Indian filatures are not at all at a disadvantage in respect of the above items of expenditure. But in Japan and Central China, the raw material, *viz.*, cocoons is superior in quality and admits of grading. Generally their superior cocoons are used in producing high grade silk. The lower grade cocoons are used for manufacturing cheaper grades of silk. The double cocoons are used for reeling Dupion silk. The South China cocoons are similar in quality if not inferior to Mysore cocoons.

25. The maximum output is calculated assuming 28/30 as the denier produced. But actually finer sizes such as 13/15, 16/18 and 20/22 have been

produced along with 28/30. The filature had to stop work for a few months as noted below for want of demand for silk and due to fluctuations in the silk market.

Period for which there was no work.			Period for which there was no work,		
1925-26	.	About 3 months.	1928-29	.	About 1 month.
1926-27	.	„ 4 „	1930-31	.	„ 3 months.
1927-28	.	„ 3 „	1931-32	.	„ 4 „

The maximum capacity of Mysore Government Filature and the actual output of silk and waste are given below:—

Year.	Number of basins.	MAXIMUM CAPACITY.		ACTUAL OUTPUT.	
		Silk.	Waste.	Silk.	Waste.
		Lbs.	Lbs.	Lbs.	Lbs.
1924-25	12	4,500	3,150	2,502	1,811
1925-26	12	4,500	3,150	1,992	1,291
1926-27	12	4,500	3,150	1,874	945
1927-28	12	4,500	3,150	3,040	2,062
1928-29	22	8,100	5,600	2,737	2,048
1929-30	36	18,500	9,450	6,098	4,538
1930-31	18	6,750	4,700	4,936	3,843
1931-32	18	6,750	4,700	3,152	2,196
1932-33 (up to end of December).	18*	6,750	4,700	2,330	2,039

*N.B.—16 additional basins have been installed since December 1932.

26. Under existing conditions a filature with 72 basins (six ends) of the latest type with Jette Bout would be efficient and economic. The estimate of cost would differ according to type of basins used. The following is an approximate estimate for a filature of latest type:—

	Rs.
1. 72 basins at Rs. 350 each	25,000
2. Boiler, electric motor, etc.	11,000
3. Installation charges	6,000
4. Buildings, etc., stifling chamber	40,000
Total	82,000

27. Yes. In France and Italy a filature of 96 basins (6 ends) is considered to be economical. In Japan a filature of 150 basins (4 ends Button System) is considered to be economical. But Co-operativie filatures with sixty basins are managed economically. The size of a filature in Japan varies from 60 basins to 750 to 1,000 basins. In Central China the size of a filature varies between 120 basins and 1,200 basins. In South China some reeling is done on large reel turned by hand, more reeling is done on a reel turned by foot power, while the exported raw silk is reeled in filatures where steam power is employed. In the first method only low grade cocoons are used. In foot power reels about twice as much silk is manufactured as in steam filatures. The number of basins in a steam filature varies between 400 and 500. The largest filature has 760 basins while the smallest has 100 basins.

In France and Italy there is direct reeling. In Japan and China silk is re-reeled.

28. No accurate statistics can be furnished. But an approximate estimate is given below:—

	1926-27.	1931-32.
	families.	families.
1. Mulberry cultivation and silk-worm rearing	90,000	60,000
2. Number of families indirectly benefited such as those employed in cultural operations, supply of appliances, etc. . .	80,000	60,000
3. Reeling	16,000	11,000
4. Weaving and connected operations and other miscellaneous works	20,000	20,000
Total	2,06,000	1,51,000

29. The total strength of the Mysore filature is 70 workers. Ninety-five per cent. is skilled labour. There is an adequate supply of skilled labour. It takes about four months for the untrained labour to acquire the minimum skill.

30. (i) (a) Eight annas to 10 annas with charka per day;

(b) six annas to 8 annas with Mysore Domestic basin or other basin per day;

(c) seven and half annas to 9½ annas per day in the Government Filature.

(ii) The Indian Sericultural labour compares favourably with the Chinese labour.

(iii) In Mysore the Department of Sericulture has made provision to train sons of rearers, reelers and other skilled labourers in departmental institutions. Reeling schools are attached to domestic units. Silk twisting schools are provided to train women in re-reeling and twisting. Reeling and grainage demonstrations are held for the benefits of reelers and raiyats at the very doors of the sericulturists. The staff of the Sericultural Department impart instructions in rearing by going from house to house in rearing centres. Scholarships are awarded by Government as well as by local bodies to enable sons of sericulturists to obtain training in Government Farms. Vocational instruction is imparted in sericulture in some of the selected middle schools in sericultural areas.

31. (a) Nil.

(b) Government Land.

(c) Rs. 19,000.

(d) 18,956-5.

32. (i) Rs. 19,000.

(ii) Rs. 20,000.

33.	Buildings.	Plant and Machinery.	Tools.
	per cent.	per cent.	per cent.
1927-28	5	5	10
1928-29	5	5	10
1929-30	5	5	10
1930-31	5	5	10
1931-32	5	5	10

(There is no reserve fund.)

34. Rs. 50,000. Government funds. Interest charged is $5\frac{1}{2}$ per cent.

35. Spinning of silk waste is not carried on anywhere in Mysore State. Coarse handspun silk is produced from pierced cocoons by Gosha ladies during their spare hours in some parts of the State. The production of this article is very limited. Re-reeling and throwing of Charka silk are being carried on in some of the silk centres. In some places, Government **have started re-reeling and twisting schools.**

36. Silk throwing is carried on by a few factories in Bangalore City and recently a factory has been established at Mamballi in Mysore District. These throwing factories generally do commission throwing.

37. Silk weaving, manufacture of gold thread and nakhi, Dhanak, etc.

38. (i) The total Indian demand for raw silk is about four million pounds.

(ii) **The total Indian production of raw silk is about two million pounds.**

39.

Year.	Raw Silk quantity produced.	Quantity sold for use in other parts of India.	SILK WASTE.	
			Quantity produced.	Quantity exported.
	lbs.	lbs.	lbs.	lbs.
1926-27	1,160,000	746,692	580,000	613,228
1927-28	1,000,000	670,760	500,000	480,848
1928-29	920,000	610,650	460,000	493,394
1929-30	880,000	552,844	440,000	462,890
1930-31	860,000	383,440	430,000	234,720
1931-32	740,000	367,440	370,000	266,560

About 30 per cent. to 40 per cent. is used locally, i.e., in Mysore. All the silk waste produced is exported abroad.

The principal centres of trade in raw silk are Bangalore, Channapatna, Sidlaghatta and Chikballapur. The bulk of the trade passes through Bangalore City, where there are a number of silk koties which specialise in trade in raw silk. The owner of the koti gets raw silk from the reelers in the interior. The reeler deposits the raw silk manufactured or collected by him with the owner of the koti and obtains an advance from him amounting from 50 to 75 per cent. of the total value of raw silk so deposited. On this advance, interest is charged at rates varying from 10 to 12 per cent. A commission of one anna per seer of $26\frac{1}{2}$ tolas is charged by the koti owner to the seller, i.e., the reeler. Sometimes large customers from consuming centres also employ brokers to assist them in getting silk from the silk koties. For the services rendered by the brokers a commission of two to four annas per seer called 'Gootam' is charged. The brokers also arrange, if required, for the purchase of silk on credit from the koties. There are five such brokers in Bangalore and their services are availed of largely by customers from Gadag, Hubli, Dharwar, Bagalkote, Shapur, Belgaum, Guladagudda, Bettigere, Kanchi and Salem.

The koti owner sends quotations to customers in different centres of trade outside the State. As soon as an order is received a consignment is made and forwarded to the purchaser. The silk is sent out in bales of 70 lbs. or 105 to 108 seers of $26\frac{1}{2}$ tolas each. The purchaser has to give a commission of one anna per seer. When credit is allowed, he is charged interest at the rate of 10 to 12 per cent. from the date of consignment. Generally, the koti owners realise their dues as early as practicable. Money is received by means of insured letters. So soon as the amount is received, it is credited to the account of the reeler and the advance made to him is adjusted out of it.

Most of the silk waste produced in Mysore is exported through Madras or Bombay. The exporting houses have their agents all over the State, and these men generally go about the villages where charkas are working, collect all the silk waste and send it by rail. The agents are sometimes placed in funds by the exporting houses for making advances to the reelers. There are, in addition, a few dealers who collect the waste on their own account and sell it to the exporting houses. Money is realised against the despatch of the railway receipts.

40. Mysore silk is largely sold in weaving centres in Bombay and Madras Presidencies. Very little of it goes to upcountry markets now-a-days. The usual markets in Bombay Presidency are Gadag, Hubli, Belgaum, Bagalkote and in the South, Salem, Conjeevaram, Trichinopoly, etc. The weaving centres in Bombay Presidency which use Mysore silk are practically equi-distant from Bangalore and Bombay. The weaving centres in the South such as Kumbakonam and Trichinopoly are practically equi-distant from Bangalore on the one hand and Tuticorin on the other. Foreign silks are generally imported into Bombay and Tuticorin. It is said that of late some foreign silk is coming into Madras also.

The distances and freights are noted below :—

	Distances in miles.	Freight per 75 lbs. Rs. A. P.
Bangalore to—		
Gadag	299	3 3 0
Hubli	292	3 3 3
Belgaum	380	3 15 0
Bagalkote	356	3 15 0
Conjeevaram	197	2 8 0
Salem	164	2 2 0
Bombay to—		
Gadag	490	4 13 0
Hubli	453	4 10 0
Belgaum	365	4 6 0
Bagalkote	408	4 3 0
Tuticorin to—		
Salem	320	3 5 0
Conjeevaram	205	1 12 0

41. The raw silk that is exported from Mysore to centres of weaving in India is generally re-reeled, twisted and then sold or used for weaving, adding charges on above operations and transport charges. The sale price of these latter cannot be compared with the prices of raw silk sold in Mysore markets. Allowing for these charges there is no appreciable differences between the net prices.

42. The charka silk is not graded by any scientific methods. The traders determine the quality of silk by examining for uniformity, broken ends, cleanness, nerve, feel, colour and lustre. Filature silks are examined scientifically by means of instruments for uniformity, elasticity and tenacity and winding, the other qualities being tested by visual inspection. Similar tests are carried on for testing domestic basin silk.

Charka silk can be graded provided reeling is improved. Systematic improvement in grading is only possible on the establishment of a standard quality based on accurate tests. The silk association is working up to the ideal of a central conditioning house. But progress is greatly hampered by the present critical condition of the industry.

43. There is no marked difference between the prices published by the Chamber of Commerce and the actual prices realised by the reelers. The

statements pertaining to prices of silk as published by the Chamber of Commerce and prices paid to reelers are annexed.

44. The silk merchants in Mysore do not import foreign silks from the country of origin. They get their supplies from importers in Bombay. A statement showing quantities of foreign silk imported into Mysore State and their prices is given below:—

Year.	Quantity in lbs.
1928-29	19,875 (April to April.)
1930-31	30,560
1931-32	36,560
1932-33	97,360 (April to end of September.)

Statement showing the difference between Canton (Foreign) and Mysore Silk during the past five years—Bangalore rates.

No.	In the year.	VARIETIES.			PURE MYSORE.	
		Canton (lb.)	Dupion (lb.)	Dance (lb.)	1st quality (lb.)	2nd quality (lb.)
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	1927-28	9 12 0	6 9 0	..	9 8 0	8 6 0
2	1928-29	7 0 0	6 9 0	5 14 0	8 10 0	7 12 0
3	1929-30	6 8 0	5 8 0	6 2 0	8 2 0	7 5 0
4	1930-31	6 2 0	4 14 0	5 4 0	6 9 0	5 1 0
5	1931-32	4 14 0	4 6 0	5 10 0	5 7 0	4 11 0

45. The following kinds of silk imported from China are being used by the weavers who were formerly using Mysore silk only. The kinds of Mysore silk that were being used by these weavers before Chinese silk came in are also noted:—

Foreign silk. *सयमेव जयते* Mysore silk displaced.

1. Dupion:—

(a) Dance—K.L. (double cocoon silk), High grade . . . Vittalapur and Hindignal.

(b) Grey Hound Double cocoon, Medium Channapatna.

(c) Bat Wheel—Low Grade . . . Agrahar and Honnur.

2. Tsatlee Re-reels Siddlaghatta, Vadigenahalli, Chikballapur and Kyalanur.

3. Canton Steam Filatures Kempanahalli, Closepet, Thimmasandra and Mamballi.

It is not possible to say how the above silks are classified in the Indian Customs Tariff. All the above silks are used by handloom weavers.

The several kinds of silks ordinarily imported are noted below:—

Kubin : 3 Joss.

Photo.

Coch.

Santa Lava 3 Joss.

Hoyung Moon No. 1, 2, 3 and 4.

Chinkaw Red Dragon.

Minchew	Re-reel—Deer stock Chinaman.
Minchew filature	5 boys.
Do.	Good Luck.
Wusih Filature	Extra Bat Wheel.
Do.	H. L.
Do.	Double cocoon.
Do.	Rising Sun.
Do.	Leaf.
Kakadia	Cock No. 2.
	Cock No. 4.
Fanchow	Swallow—1, 2, 3, 4 and 5.
	Swan—1, 2, 3 and 4.
Steam Filature	White.
Mai	C. H. No. 1 and 2.
	S. C. No. 1, 2, 3 and 4.
	Do. 5.
	H. K. No. 2 and 3.
	3-K No. 3.
	F K No. 1.
	3-S No. 1.

Latlee Re-reel—18/22 Red Fauchop.

Japan Rose.

Minchew Filature—Yellow Fire.

Minchew Yellow—Middle Thick.

Hugung Budda No. 3 and 4.

Canton Steam Filature.

46. Bangalore Silk Koties now import largely Canton Steam Filature silk and Dupion silks to a limited extent. The price now quoted at Bangalore for Canton Steam Filature silk is Rs. 4-11 per lb. If from this five per cent. is deducted on account of freight, insurance, handling and other charges from Bombay, the price at Bombay port would be Rs. 4-7-3. From this, if *ad valorem* duty is deducted at the rate of 25 per cent., the probable tariff valuation would be Rs. 3-9 per lb. at Bombay. Deducting about six annas per lb. for freight, transhipment, etc., from Canton to Bombay, insurance, brokerage, commission and other handling charges, the value at place of shipment approximately be about Rs. 3-3 per lb. Generally manufacturing charges of silk per lb. cannot be anything less than 25 per cent. of the total cost of production. According to this the price paid on raw material, *viz.*, cocoons comes to Rs. 2-7. South China cocoons are poor in quality and about 15 lbs. of cocoons are required to give one pound of silk. This means that the cost of cocoons per lb. is about two annas seven pies. The price of cocoons in Mysore per lb. is now five annas and South China cocoons as per above computation cost only half of that of Mysore cocoons. It is impossible to conceive that filatures can obtain cocoons at this price in South China where the conditions are similar to those in Mysore. The conclusion seems irresistible that the filatures in South China are selling below costs, and are suffering heavy losses. Take for instance, the year 1930. From information collected personally, during August 1930 in some of the filatures in South China, the cost of production varied between Canton dollars 1,600 and 1,180 per 133 lbs. According to the rate of exchange, *viz.*, Rs. 88 per 100 Canton dollars, the cost of production per lb. varied from Rs. 10-9 to Rs. 8-7. The maximum rates at which actual sales were effected in Canton in August were 800 dollars per 133 lbs., in September

of the same year 740 dollars and in October 720 dollars. This works out to about Rs. 5-5 per lb. during August at Canton. At Bangalore, the prices of Canton silk from August to December 1930 varied between Rs. 6-2 and Rs. 5-12 per lb. We must add taxes at Canton at the rate of Canton dollars 38 per 133 lbs. or four annas per lb. of silk, and freight to Bombay, handling and other charges of about six annas, *ad valorem* duty at Bombay of 15 per cent. per lb. Supposing that the duty has been paid at the valuation of Rs. 5-5 it works out to ten annas per lb. Thus, at Bombay, the price must have been Rs. 6-9 per lb. To this must be added five per cent. as freight, insurance, handling and other charges from Bombay to Bangalore. Thus, the actual price at Bangalore to silk Merchants should have been Rs. 6-14 per lb. whereas koties in Bangalore have actually sold this silk at Rs. 5-14 to Rs. 6-2 per lb.

The following extracts from the report for the year 1930-31 of 'The Association of Raw and Waste Silk Exporters of Canton' would throw further light on this subject.

"The season under review has suffered owing to the general depression of raw products, and in particular owing to the over production in Japan. These causes resulted in extremely low prices, filatures losing heavily, but despite this handicap more silk was exported than during any of the previous ten seasons. Prices averaged very low throughout the season and with the continued drops in exchange the filatures were barely able to carry on; indeed several of them were obliged to suspend production. The quality which during the previous season had fallen off considerably remained on a very low level and in spite of continued protests and warnings by the exporters, the filatures took no steps to improve their quality."

"The high export figures to Bombay are quite unprecedented in the history of Canton Silk, and are mainly due to low price of silk during the past season, silks of other provinces especially Indian Silk itself being unable to compete with Canton silk on the Bombay market."

Silks exported to India from Shanghai are sold at rates varying between about Rs. 4-11 and Rs. 4-15 per lb. All the charges on export from the interior of Central China to Shanghai and to Bombay are practically the same as those from South China to Bombay.

To sell at this price without incurring a loss filatures would have had to get their cocoons at As. 2-9 per lb. But we know as a matter of fact that few rearers could be prevailed upon to sell even at 3 annas 4 pies per lb. and preferred to hold back their cocoons. The reeling establishments who did continue operations must certainly have paid more than 3 annas 4 pies per lb. There can be no doubt at all that the silk exported from Shanghai was sold at prices much below the cost of production.

The following concessions have been given by the Chinese Government to silk reelers and traders.

The Government have exempted the silk traders from export duty on raw silk which was 30 yuan per bale, *i.e.*, Rs. 33.

The Government subsidized the export of silk to the extent of 100 yuan per bale (*i.e.*, Rs. 108).

Filatures were promised advances to the extent of 30 lakhs of yuan for purchasing cocoons (32 lakhs of rupees).

Government promised to advance money to the extent of 40 lakhs of yuan, *i.e.*, about 43 lakhs of rupees on the mortgage of silk and cocoons in stock to facilitate trade and work in filature.

All the measures indicate that the filatures were in a position to sell silk at prices below normal costs of production. In Lyon market, the prices that prevailed for Canton and Shanghai silks from September to December 1930 are given below:—

Canton silk—20/22—110—125 frcs. per kilo.

Shanghai silk (Tsatlee) R. R.—145—155 frcs. per kilo.

The above rates are as furnished by Messrs. Chabrier and Morel & Co., Lyons—France.

Samples will be furnished when the Board visits Bangalore.

47. A comparative statement of the characteristics of imported and Mysore silk is attached.

The colour of Canton silk is almost similar to that of Mysore silk. In elasticity, tenacity, nerve and lustre, it is inferior to Mysore silk. When compared to charka silk, Canton Steam Filature silk has better winding qualities. The loss in bleaching also is less, specially in the case of Tsatlee. The Dupion silk is very inferior. The difference in price between imported and Mysore silks is not due to differences in natural qualities. The weaver purchases foreign silks because they are very cheap, and because they lend themselves to throwsters' operations better. Quality is sacrificed to cheapness.

48. There is no doubt that the depreciation of Chinese and Japanese money has been a factor, favourable to the portentous growth of the imports.

The exchange rates between Bombay and Hongkong, Shanghai and Yokohama during each of the months of year 1929, 1930, 1931 and 1932 are given in the statement enclosed. A statement showing the imports of silk into India during each quarter for the same years is also attached. The fluctuations in exchange during the year 1929 were not very violent. The appreciation of the rupee in the latter part of 1930 facilitated heavy imports early in 1931. The imports were restricted during the rest of the year 1931 due to unsettled conditions in China such as troubles in Manchuria, and war between China and Japan in Central China, though the exchange was very favourable for imports. During the major portion of 1932, the conditions in China were normal and the exchange also was favourable. This facilitated large imports.

In South China during April 1931 troubles commenced due to change of Government in Canton which declared hostility to Central Government. This restricted imports of silk from Canton also during 1931 though the exchange was favourable. The imports from Japan have also increased considerably during 1932, when exchange was favourable for imports. When the rupee appreciates the competition from foreign countries grows keener even though the cost of silk in those countries remains steady.

49. Silk waste is not imported into India.

50. Data have been collected regarding installation of silk waste plant. But due to financial stringency and depression in the silk trade, no plant has been started in India. About six lakhs of rupees are required for plant and machinery to instal a factory capable of dealing with the total quantity of waste produced in India. About four lakhs of rupees more will be required for buildings and for working capital, etc.

51. The serious decline of the Sericultural industry in India is due to the competition of cheap foreign silks.

52. The decline of silk industry in India is not directly due to world factors. But world factors have been responsible to accentuate the competition from China. Japan has ousted China to a great extent from American Market where the former has been monopolising the market due to over production in Japan. China has had to find outlets for the silk. It is seen that the import of China silk into America in 1930 was less by 34 per cent. as compared to 1929. In 1931 the imports of Chinese silk to America fell by 57 per cent. as compared to 1930. On the other hand the imports of Japanese silk into America fell by 14 per cent. only in 1930 and in 1931 the imports rose by 1.2 per cent. The total imports of silk into America from all countries fell by 15 per cent. in 1930, and 6.6 per cent. in 1931. India offered a good market for Chinese silk which had to be sold even at a sacrifice. The unprotected nature of the silk industry in India is the special factor responsible for the decline of this industry in India.

53. The causes are not permanent, but are so acute and powerful in their operation that they may be expected to destroy the Indian Industry within a very short time if not counteracted by protection.

54. Mysore has not been exporting silk or cocoons to countries outside India. The decline in the export of silk waste has been due to the general trade depression in foreign countries.

55. Yes. Since it is too low to afford effective protection. If the silk industry is to be saved the revenue duty should be replaced by a protective duty of a pitch adequate to give effective protection.

56. (a) Yes. Mysore is admirably fitted by soil, climate and local conditions for silk production. There is practically no part of the State where climatic conditions will not admit of extension of the industry. The cultivation of mulberry and the rearing of silk worms afford a subsidiary occupation which enables the family of the agriculturist to turn his waste time to account. There is inherited skill in rearing silkworms. There is also a large population which can easily take up sericulture.

There is a large home market.

(b) The industry has already suffered great damage due to the competition of foreign silks. Without immediate and adequate protection the industry will be killed.

(c) Yes. There is no doubt that given immediate and adequate protection, in about fifteen years, the Indian industry will have grown sufficiently large to supply the Indian demand, and sufficiently strong to defy foreign competition.

57. (a) The amount of protection required is the amount sufficient to increase the price of China silk to the level of the price of re-reeled Mysore silk, or Mysore Domestic Basin silk. China silk after paying an import duty of 25 per cent. is now being sold at Rs. 4-11 per lb. in Bangalore which is the principle silk market in the State. Domestic basin silk cannot be sold in Bangalore at less than Rs. 8 and at a point where freight from Bombay and Bangalore equalise, domestic basin silk could be sold at about Rs. 8-3. Therefore as things stand at present, Chinese silk is selling at prices only about half of that of Mysore silk. In these circumstances a 100 per cent. *ad valorem* duty on the correct invoice value is necessary.

(b) The period for which this duty is necessary is about fifteen years. This period is necessary as people engaged in the silk industry are illiterate, poor and live in the interior villages. Improvements are being gradually introduced in all the operations comprised in sericulture. When regard is had to the extent of the industry and the nature of the people who find employment in it, it will be realised that improvement is a question of time. Time is required to push the improvement into the homes of the workers. From the experience already gained the period is not unnecessarily long.

58. The result of effective protection for raw silk will necessarily be to raise the price of silk and silk goods in India. It is quite obvious that a duty on raw silk without a corresponding duty on the silk manufactures and fabrics coming into the country will be futile. A prosperous sericultural industry has a vital bearing on the stability and progress of the silk textile industry and the silk hand weaving industry in India. To protect the industry adequately duty should be imposed on foreign raw silk as well as prepared silk such as noils, warps and yarns and also on silk fabrics.

The Indian demand for silk is not only the demand for raw silk from the weaving industry of India, but also the demand of the Indian consumers for silk fabrics woven abroad. India imports at present about 19,900,000 yards of silk fabrics, chiefly from China and Japan representing a value of a crore and fifty eight lakhs of rupees. These goods are mostly crepes, georgettes, taffetas and satins, which were not hitherto being manufactured in India. A year ago, as the result of careful investigation a pioneer

weaving factory was started at Mysore, and the experience of work there makes it certain that the fabrics which are at present being imported can be manufactured in India at a profit and in qualities which loose nothing by comparison with those foreign goods. There can be no doubt that the pioneering and development of the manufactures of high class silk fabrics in India which could displace foreign goods will greatly widen the scope for sericulture, adding what is practically a new province to the Indian Weaving Industry and enriching the economic life of the country by providing fresh fields of employment.

In the Mysore State, weaving of silk fabrics on hand looms is carried on largely in Bangalore, Nelamangala, Magadi, Doddballapur, Holenarsipur, Molakalmuru, Gudibanda and Mulbagal. Except at Doddballapur and on few looms at Bangalore, the weavers were formerly using exclusively Mysore silk yarn. In Bangalore and Doddballapur, however, weavers have recently taken to the use of imported Chinese yarn and to this extent the latter has displaced local silk yarn. The number of silk looms working in the State is estimated at 8,000. Some six years ago when the imports of foreign silk were normal both in quantity and price, there were about 6,000 looms. An appreciable part of the increase has taken place in recent months. It seems obvious that this increase is almost entirely due to the large quantity of unprecedently cheap foreign silk now available to the weaver, which enables him to place on the market silk cloth at prices within the reach of even the poorer classes of customers. Whereas a sarree of the pattern known as 'Arlepet' used to sell formerly at prices ranging from Rs. 60 to Rs. 80 a very similar article made of imported silk now sells at anything between Rs. 30 and Rs. 40. This fall in price creates a demand for 'Arlepet' sarrees from people whose means did not permit them to buy the article at the former price. Since there has been no increase in the total number of looms, it is evident that the increase in the number of silk looms has been secured by the conversion of cotton looms to silk. The conversion of cotton looms and of cotton users to silk as the result of a ruinous invasion of foreign silk cannot be considered a permanent or healthy development; but one encouraging fact seems obvious, namely, that in the weaving industry a certain amount of adjustment is possible and that weavers displaced from one kind of weaving can turn their hands and appliances to another.

The result of effective protection for silk yarn will necessarily be to raise the price of silk and consequently of silk fabrics. This is bound to bring about a contraction in the demand for silk fabrics, possibly to the same extent to which there has been an expansion in recent years owing to the influx of foreign silk. It may not be unreasonable to expect that the number of looms engaged in weaving silk goods will go back to a figure round about the former one of 6,000. This contraction need not, however, lead to any great distress, because just as cotton looms have been converted into silk looms now, silk looms might be re-converted to cotton looms in the future, provided of course, that the increased demand for high class cotton fabrics which would be substituted for the low priced silk goods, is not in the meantime allowed to be met by foreign imports of superior cotton fabrics. From this reasoning, it seems probable that a protective duty on silk yarn would not unduly affect the hand weaving industry, if protection is afforded, firstly, against foreign silk fabrics and secondly (and to less degree) against high class foreign cotton fabrics which might be substituted for silk fabrics. It may, perhaps, be added that the contracted market for silk fabrics of which an index would be the probable decrease in the number of silk looms from 8,000 to 6,000 would be a firm and steady market and not one which depends for its existence on adventitious conditions brought about by unnatural causes.

59. (1) The proportion depends upon the cost of raw silk. The raw silk is twisted mostly on commission basis, the charges per lb. being more or less fixed according to the nature of the twisted silk required. For producing organzine the charges vary from Rs. 2 to Rs. 2-8 per lb. and for other twisted silk the charges vary from Rs. 1-4 to Rs. 1-12 depending

upon the denier of the silk. A statement of charges in the twisting factory is given below:—

	Rs.	A.
Rate for preparing—		
1. Organzine from 20/22 silk with 2 ply .	2	8 per lb.
2. „ from 20/22 silk with 3 ply .	2	4 „
3. Godhuri from 20/22 silk 2 or 3 ply .	1	6 „
4. Sappehuri from 20/22 silk either 2, 3 or 4 ply	1	6 „
5. Organzine from 28/32 silk 2 or 3 ply .	1	6 „
6. Godhuri from 28/32 silk 2 or 3 ply .	1	6 „
7. Sappehuri from 28/32 silk 2, 3 or 4 ply .	1	5 „
8. Vontihuri from 28/30 silk	1	6 „

(2) Fifty per cent. of the proportion of the cost of the silk piecegoods is represented by the cost of raw silk.

60. Yes. (1) The amount of reduction that can be effected is about 40 per cent.

(2) Cost of leaves, cost of cocoons, cost of reeling.

(3) *Cost of leaves.*—The means to be adopted are:—

1. Planting mulberry topes;
2. Introducing seedling plantations;
3. Introducing larger yielding varieties of mulberry;
4. Improving cultural operations;
5. Using suitable fertilisers that give larger yield of leaf;
6. Improving mulberry.

Cost of Rearing.—The means to be adopted are:—

1. Minimising loss of crops, by using disease-free layings and by adopting improved methods of rearing;
2. Increasing output by using cross breed layings.

Cost of Reeling.—The means to be adopted are:—

1. Introducing better appliances and better technique;
2. Improving purchasing methods;
3. Using high grade Mysore cocoons and cross breed cocoons.

N. RAMA RAO,

*Director of Industries
and Commerce.*

ANNEXURE TO REPLY No. 43.

Prices at which Mysore silk was sold in Bangalore for the years 1931 and 1932.

Names of villages.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
1931.												
1. Kempanaballi . . . . .	..	..	..	..	..	..	..	..	5 7	6 3	6 12	7 5
2. Channapathra . . . . .	..	..	..	..	..	..	..	..	4 6	4 14	5 10	6 8
3. Closepet . . . . .	..	..	..	..	..	..	..	..	5 3	6 3	6 8	7 2
4. Sidlaghatta . . . . .	..	..	..	..	..	..	..	..	5 9	6 6	7 2	7 11
5. Chikballapur . . . . .	..	..	..	..	..	..	..	..	5 0	6 0	6 9	6 15
6. Kyalanur . . . . .	..	..	..	..	..	..	..	..	5 0	6 0	6 12	7 2
7. Nandi . . . . .	..	..	..	..	..	..	..	..	4 14	5 13	6 5	6 14
8. Agrahar . . . . .	..	..	..	..	..	..	..	..	3 15	4 11	5 3	5 13
9. Thimmasandra . . . . .	..	..	..	..	..	..	..	..	5 1	6 0	6 14	7 2
10. Mamballi . . . . .	..	..	..	..	..	..	..	..	5 1	5 7 to 6 0	6 8	7 5
1932.												
1. Kempanaballi	7 7	7 11	7 14	7 2	6 3	6 0	5 13	5 13	5 10	5 10	5 9	5 9
2. Closepet	7 5	7 8	7 11	6 12	5 9	5 7	5 4	5 7	5 7	5 7	5 7	5 7
3. Channapathra	6 12	6 15	6 15	6 3	4 14	4 8	4 9	4 9	4 14	4 13	4 11	4 9
4. Sidlaghatta	7 8	8 0	8 1	7 4	6 8	6 6	6 0	6 3	4 2	6 0	5 13	5 13
	to											
5. Chikballapur	7 14	7 5	7 5	6 12	5 9	5 4	5 4	5 6	5 6	5 4	5 6	5 4
6. Kyalanur	7 2	7 8	7 7	6 15	5 9	6 4	5 6	5 6	5 4	5 4	5 6	5 4
7. Nandi	7 4	7 4	7 4	6 12	5 7	5 3	5 3	5 3	5 3	5 4	5 1	5 10
8. Agrahar	6 2	6 3	6 3	5 10	4 4	4 0	4 2	4 6	4 4	4 4	4 2	4 2
9. Thimmasandra	7 8	7 8	7 8	6 12	5 12	5 10	5 1	5 6	5 7	5 7	5 6	5 6
10. Mamballi	7 7	7 14	7 14	6 12	6 6	5 12	5 10	5 10	5 10	5 10	5 10	5 12

ANNEXURE TO REPLY No. 43.

Price of Mysore silk in Mysore from 1927-28 to end of December 1932, as published by the Mysore Chamber of Commerce.

Month.	Kempanahalli.	Sidlaghatta.	Closepet.	Chikballapur.	Channapatna.
1927-28.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
May	10 14 11 10	..	..	..	9 6 9 10
June	10 14 11 10	..	..	..	9 6 9 10
July	10 2 10 8	..	..	..	8 4 9 6
August	10 2 10 8	..	..	..	8 10 9 4
September	9 12 10 2	..	..	..	8 4 9 0
October	9 6 10 2	..	..	..	8 4 9 0
November	9 0 9 15	..	9 0 9 3	8 11 8 14	9 14 8 10
December	9 12 10 2	..	9 4 9 6	9 0 9 3	8 10 9 3
January	9 9 9 15	..	9 6 9 12	9 0 9 3	7 15 8 14
February	9 3 9 6	..	9 0 9 6	8 10 8 13	7 12 8 10
March	9 2 9 3	..	8 11 8 13	8 4 8 7	7 8 8 6
April	8 10 9 0	..	8 1 8 7	8 0 8 4	8 0 8 1
1928-29.					
May	8 13 9 3	..	8 0 8 11	8 4 8 6	6 12 8 4
June	9 9 9 12	..	8 12 9 0	7 8 8 10	7 2 8 7
July	9 3 9 6	..	8 13 9 0	8 4 8 7	6 12 8 4
August	8 4 8 10	9 0 9 3	8 1 8 7	7 14 8 1	6 6 7 11
September	8 7 8 10	8 4 8 10	8 1 8 10	7 14 8 1	6 3 7 12
October	8 8 8 13	8 4 8 8	8 4 8 10	7 14 8 1	6 6 7 15
November	8 7 8 10	8 4 8 10	8 0 8 14	7 14 8 1	6 9 7 15
December	8 13 9 0	8 10 9 0	8 10 9 0	7 14 8 4	6 15 8 4
January	9 3 9 9	9 6 9 9	9 0 9 9	8 13 9 0	7 4 8 10
February	9 3 9 6	9 0 9 3	8 1 9 15	8 13 8 15	7 8 8 13
March	9 6 9 9	9 6 9 12	9 6 9 12	8 10 8 12	7 8 8 7
April	9 6 9 9	9 3 9 6	8 10 9 3	8 4 8 7	6 15 7 11

Month.	Kempanahalli.	Sidlaghatta.	Closepet.	Chikballapur.	Channapatna.
1929-30.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
May . . .	9 0 9 0	9 0 9 6	8 7 9 3	8 4 8 7	6 15 7 14
June . . .	8 10 9 0	8 10 9 0	8 7 9 0	8 1 8 4	6 15 7 8
July . . .	8 4 8 8	8 7 8 14	8 4 8 13	8 1 8 5	6 10 7 8
August . . .	7 14 8 14	8 4 9 3	8 2 8 10	7 15 8 4	6 7 7 9
September . . .	7 14 8 7	8 7 9 0	7 15 8 7	7 14 8 1	6 6 7 8
October . . .	7 14 8 4	8 4 8 10	7 14 8 4	7 14 8 0	6 4 7 2
November . . .	8 1 8 4	8 7 8 10	7 11 8 1	7 12 7 15	6 4 7 0
December . . .	8 5 8 10	8 7 8 13	8 3 8 7	7 15 8 4	6 9 7 14
January . . .	7 14 8 4	8 4 8 10	7 14 8 4	7 12 8 1	6 6 6 8
February . . .	7 11 8 1	8 1 8 7	7 14 8 2	7 11 7 14	6 6 7 5
March . . .	7 14 8 4	8 4 8 10	7 15 8 4	7 11 7 14	6 0 7 2
April . . .	7 14 8 4	8 1 8 7	8 1 8 5	7 9 8 1	6 3 7 2
1930-31.					
May . . .	8 4 8 12	7 11 8 1	8 6 8 14	7 12 8 1	6 9 7 4
June . . .	7 14 8 4	7 11 8 4	7 14 8 4	7 9 7 11	6 6 7 8
July . . .	6 9 6 12	6 12 7 8	6 3 6 9	6 0 6 3	6 1 5 10
August . . .	6 6 6 9	6 6 7 2	5 13 6 6	6 0 6 2	4 11 5 4
September . . .	5 10 5 13	6 0 6 3	5 4 5 10	5 1 5 4	4 5 4 14
October . . .	5 2 5 8	5 10 6 0	4 14 5 4	4 11 5 1	3 15 4 5
November . . .	4 14 5 10	5 4 5 10	4 14 5 10	4 8 5 4	4 2 5 1
December . . .	6 6 6 9	6 9 6 15	6 3 6 6	5 10 5 13	5 4 5 7
January . . .	6 9 6 12	6 12 6 15	6 6 6 9	5 10 6 0	5 10 6 0
February . . .	6 9 6 12	6 12 6 15	6 6 6 9	5 10 6 0	5 10 6 0
March . . .	6 0 6 6	6 0 6 9	5 13 6 0	5 13 6 0	4 14 5 7
April . . .	6 0 6 3	6 0 6 9	5 13 6 0	5 10 5 12	4 14 5 7

Month.	Kempanahalli.	Sidlaghatta.	Closepet.	Chikballapur.	Channapatna.
1931-32.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
May	6 0 6 3	6 0 6 6	5 10 5 12	5 11 5 13	4 15 5 4
June	5 10 6 0	5 13 6 3	5 7 5 13	5 4 5 7	4 11 5 4
July	5 10 5 13	5 13 6 0	6 4 5 7	5 1 5 4	4 5 4 11
August	5 7 5 9	5 7 5 10	5 1 5 5	4 12 4 14	4 5 4 11
September	5 7 5 9	5 7 5 10	5 1 5 4	5 1 5 2	4 5 4 11
October	6 0 6 6	6 6 6 9	6 0 6 3	5 10 5 14	4 14 5 1
November	6 9 6 12	6 12 6 15	6 6 6 9	5 13 6 3	5 4 5 10
December	7 2 7 5	7 5 7 8	5 4 5 7	6 12 6 15	6 6 6 12
January	7 5 7 8	7 14 8 1	7 2 7 5	7 0 7 2	6 12 7 2
February	7 8 7 11	7 14 8 1	7 5 7 8	7 5 7 8	6 12 7 2
March	7 8 7 11	7 14 8 1	7 5 7 8	7 5 7 8	6 12 7 2
April	7 2 7 5	7 5 7 8	6 15 7 2	6 12 6 15	6 12 7 2
1932-33.					
May	6 0 6 6	6 0 6 9	5 10 5 13	5 7 5 10	5 7 5 10
June	5 10 6 0	6 0 6 6	5 4 5 10	5 4 5 7	4 11 4 14
July	6 10 6 0	5 13 6 0	5 4 5 10	5 4 5 6	4 11 4 14
August	5 10 6 0	5 13 6 0	5 4 5 7	5 4 5 6	4 11 4 14
September	5 13 6 0	6 0 6 3	5 7 5 10	5 7 5 10	4 14 5 1
October	5 10 5 13	6 0 6 3	5 4 5 7	5 4 5 7	4 14 5 1
November	5 10 5 13	6 0 6 3	5 7 5 10	5 5 5 7	4 14 5 1
December	5 7 5 10	5 13 6 0	5 4 5 7	5 4 5 6	4 14 5 1

ANNEXURE TO REPLY No. 44.

Statement showing the prices of Canton and Dupion Steam Filature Silks—per lb. in Bangalore.

Month.	1927.			1928.			1929.		
	Canton.	Dupion.	Dance.	Canton.	Dupion.	Dance.	Canton.	Dupion.	Dance.
January	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
February	9 12	6 6	..	..	5 9	..
March
April	6 6	..	..	..	..
May	6 8	..	..	5 12	5 12
June	6 9	..	..	5 15	..
July	7 0	6 9	..	..	5 12	..
August	7 0	6 12	..	9 14	..	..
September	7 0	6 12	..	..	..	..
October	7 0	6 12	..	..	..	..
November	9 12	..	..
December	9 14	6 10	9 6	..	6 9	..	9 9	..	..

ANNEXURE TO REPLY No 47.

Comparative Silk Tests done in Government Filature, Mysore, based on International Standards—December 1932.

Kind of Silk.	Name of Filature and Place.	Deniers.	Rate per lb.	Winding for $\frac{1}{2}$ hour breaks.		Uniformity.			Average.	
			Rs. A.							
Foreign Silks	(1) Canton Steam Filature Kwongwa Canton.	32/36	5 4	20	38	38	40	35	37.75	
	(2) Canton Steam Filature	28/30	5 4	4	28	23	41	33	31.25	
	(3) Ditto	20/22	5 0	8	20.5	19	17	18	18.62	
	(4) Tsatlee Filature	20/22	5 4	6	21	28	23	24	24.0	
	(5) Dupion silk (dance chop) No. 318 Shulun Silk Filature Machine made Dupion silk, Shanghai, China, Manufactured by C. A. Tung.	40/60	4 2	2	47	40	69	80	59.0	
Mysore Silks	(6) Mysore Domestic Basin silk	28/30	7 14	..	30	31	28	27	29.0	
	(7) Government Silk Filature, Mysore.	28/30	8 12	1	31	30	29	21	30.25	
	(8) Ditto ditto	20/22	9 12	No.	19	21	22	22.5	21.25	
	(9) Ditto ditto	13/15	10 8	1	15	15	15	14.5	14.87	
Kind of Silk.	Name of Filature and Place.	Nerve.	Elasticity.		Average.	Tenacity.			Average.	Lustre.
Foreign Silks	(1) Canton Steam Filature Kwongwa Canton.	Poor	16.4	17.8	16.2	21.0	84.0	82.0	85.5	Dull.
	(2) Canton Steam Filature	Do.	14.0	12.8	13.0	15.0	84.0	78.0	85.0	Fair.
	(3) Ditto	Do.	14.3	17.0	15.8	16.4	78.0	80.0	81.0	Poor.

	(4) Tattee Filature . .	18-1	17-2	13-8	15-4	16-1	84-0	84-0	84-0	84-0	Do.
	(5) Dupion silk (dance silk) No. 318 shulin Silk Filature, Machine made Dupion silk, Shanghai, Manufactured by C. A. Tung.	11-4	12-4	9-8	10-4	11-0	92-5	99-0	92-0	93-87	Fair.
Mysore Silks . .	(6) Mysore Domestic Basin silk.	20-5	15-4	23-0	22-8	20-4	104-0	104-0	95-0	87-0	Good.
	(7) Government Silk Fila- ture, Mysore.	20-0	24-0	20-8	24-2	22-7	83-0	82-0	85-0	83-0	Do.
	(8) Ditto	23-0	23-5	24-0	24-0	23-6	68-0	68-0	70-0	66-0	Do.
	(9) Ditto	16-0	17-0	16-8	15-0	16-2	42-0	60-0	58-0	53-75	Do.

N.B.—Cleanliness.—(1) Long ends in knotting and flossy.
(2) Not free from many knots.
(3) Not very satisfactory.

(4) Too much floss.
(5) Fair.
(6) Good.

(7) Very good.
(8) Very good.
(9) Very good.

International Standards for —

—	—	Number of Breaks.	Quality.	Uniformity.	Nerve.	Elasticity.	Tenacity.	Cleanliness.
1	Winding for half an hour.	Up to 3	Very good	Finer counts .	Rustling noise when squeezed, the regaining form original pressure is removed.	(20 per cent. or more very good. 17 per cent. to 20 per cent. good. 17 per cent. fair .	3 gms. for denier very good. 2.5 to 3 gms. good . 2 to 2.5 gms. fair .	Free from long ends in knotting and from floss as test- ed in black table and in the black board.
2		3 to 5	Good					
3		5 to 7	Fair					
4		Above 7	Bad			Below 17 per cent. poor.	....

ANNEXURE TO REPLY No. 48 (i).

Imports of raw silk into India.

Quarter ending	Quantity (lbs.).	Quarter ending	Quantity (lbs.).
31st March, 1929 . . .	512,639	31st March, 1931 . . .	981,487
30th June, 1929 . . .	501,663	30th June, 1931 . . .	344,607
30th September, 1929 . . .	591,844	30th September, 1931 . . .	344,577
31st December, 1929 . . .	524,874	31st December, 1931 . . .	268,848
31st March, 1930 . . .	692,958	31st March, 1932 . . .	604,953
30th June, 1930 . . .	487,714	30th June, 1932 . . .	725,803
30th September, 1930 . . .	608,092	30th September, 1932 . . .	1,132,170
31st December, 1930 . . .	386,475	31st December, 1932 . . .	664,444

ANNEXURE TO REPLY No. 48.

EXCHANGE RATES.

Bombay on.

	Hongkong.	Shanghai.	Yokohama.
<i>1929.</i>			
January	138	176	125
February	136	173	124
March	135	172	123
April	135	170	123
May	135	168—163	124
June	133	162	123
July	134	162	124—130
August	135	162	130
September	134	161—154	129—133
October	133—121	153	132
November	120	152	134
December	117	151—145	134
<i>1930.</i>			
January	113	143—137	135
February	112—106	136—131	136
March	105	132	136
April	104	131	137
May	103—94	130—114	137
June	94—88	113—104	137
July	88	104	137
August	88—91	105—110	137
September	90	111	137
October	90	110	138
November	87	109	138
December	86—76	107—97	138

	Hongkong.	Shanghai.	Yokohama.
<i>1931.</i>			
January	73—68	97—88	138
February	68—64	87—82	137½
March	64—70	82—89	137
April	68	89	137
May	68—64	88—80	137
June	65—71	80—90	137
July	71—68	90—86	137
August	67	84	137
September	67—88—85	84—107	137—167
October	85	111	168—195
November	95—94	111—124	195—204
December	94—99	124—134	204—146
<i>1932.</i>			
January	98	132—127	145—141
February	98	127—131	141—130
March	98—88	132—115	130—122
April	88—85	115—112	121
May	86	113	123—118
June	87	113	120—104
July	87	112	106
August	87—91	114—121	105—87
September	91	119	88—97
October	90	118	92
November	92	121	82
December	90	117	84

(3) Letter No. 1469/580—1931, dated the 25th February, 1933, from the Hon'ble the Resident in Mysore.

I am directed to refer to your No. 52, dated the 20th January, 1933, on the above subject, and to forward a copy of a letter No. Pol. 811/Seri. 13—32—38, dated the 24th February, 1933, with enclosure received from the Government of Mysore.

Enclosure.

Copy of letter No. Pol. 811/Seri. 13—32—38, dated the 24th February, 1933, from the Secretary to the Government of Mysore, Development Department, Bangalore, to the Secretary to the Hon'ble the Resident in Mysore, Bangalore.

I am directed to forward herewith the replies (with 7 spare copies) to the questionnaire issued by the Indian Tariff Board, regarding Handloom Weaving Industry (Silk), forwarded with your letter No. 708/580—1931, dated the 26th January, 1933.

I am to add that action is being taken to obtain replies to the questionnaire from private bodies and to have them forwarded to the Tariff Board direct.

REPLIES TO THE QUESTIONNAIRE ISSUED BY THE INDIAN TARIFF BOARD REGARDING
HANDLOOM WEAVING INDUSTRY (SILK).

1. The total number of handloom weavers engaged in weaving Cotton and Silk goods is about 34,000. Of these about 8,000 persons weave only silk goods, 10,000 persons produce cotton goods in which silk is mixed and the remaining 16,000 persons devote themselves to the production of cotton goods only.

2. The weavers obtain locally all their raw materials, both Indian and imported, from the merchants with whom they have regular transactions. The prices at which the raw materials are now purchased are shown below :—

	Rs. A.	Rs. A.
Mysore Country Charka Silk	4 12 to	5 8 per lb.
Mysore Domestic basin or Filature Silk	7 12 to	8 12 „
Canton Filature Silk	4 4 to	4 12 „
Spun Silk	4 0 to	6 0 „
Artificial Silk	1 8	„
Gold Thread (Foreign)	40 0 to	42 0 per marc.
Gold Thread Surat	24 0 to	32 0 „

3. Till recently all the preparatory processes used to be carried on by the members of the family. In recent years, separate agencies devoting their special attention to the different processes have come into existence. In remote centres of weaving, it is common for the weavers to attend to all the operations themselves.

(i) Now that there are a number of Silk Twisting factories in Bangalore, the weavers prefer to go in for twisted silk, which is usually prepared from imported silk.

(ii) & (iii) About 50 per cent. of the weavers attend to degumming and dyeing of silk in their own homes. The rest go in for dyed silk.

(iv) The Members of the family help the weaver in doubling and warping.

4. Formerly the Weavers were using Mysore Silk for both warp and weft. Now that the foreign silk can be had at lower prices, the weavers use it for warp and the local silk for weft. The fact that they get silk for warp from twisting factories also helps the substitution of imported silk.

5. The Silk Fabrics woven in the State are chiefly sarees of different patterns and designs. Plain silk cloth is also woven which can be used for shirtings, jackets and kanams, handkerchieves, angavastarams, etc. Till now there is no competition from foreign countries so far as silk sarees used locally are concerned. Imported silks which can be used for shirtings, jackets, etc., compete successfully with plain silk cloths made locally.

6. It takes from 12 to 15 days to weave a silk saree $8\frac{1}{2}$ to 9 yds. long, 42 to 45 inches wide. The time taken depends on the skill of the weaver, the design to be woven and the extent of help he gets from the members of the family.

7. Reference is invited to the answer to Question (4). About 60 per cent. of the total weight of a saree is the weight of the silk used for weft and the balance is accounted for by the warp. The percentage proportion of the weight of warp and weft to the total weight of the fabric varies where lace is used.

8. The silk sarees woven here for use by adults are generally 9 yds. long and 45 inches wide, weighing from 60 to 65 tolas. Smaller sizes called "Kiriges" for use by girls and children, 6 to 7 yds. long, are also woven. The present price of the full sized saree varies from Rs. 30 to Rs. 35 depending on its design and colour. Where lace is used, the price goes up so as

to include the cost of lace and of extra labour involved in weaving. As regards plain silks, there is a great variation in length and width of the fabrics.

9. The approximate value of silk goods woven in the State every year is about 48 lakhs of rupees.

10. Spun silk is used in weaving cloth for coatings and shirtings. It is not generally handled by the Weavers accustomed to weave sarees. The consumption of spun silk in the State is very small.

11. Yes. Merchants dealing in silk goods supply the necessary raw materials to approved weavers with whom they have regular transactions. The value of materials advanced depends on the credit of the weaver and his skill and ability to deliver in the time fixed goods of requisite quality and design. During the busy season from January to June the weaver is required to deliver the goods as early as practicable.

12. Merchants dealing in raw silk sell direct to the weavers. But it is only those weavers whose credit is good that can hope to have direct dealings with the merchants. About 80 per cent. of the weavers obtain their raw materials from the retailers or through the weaver merchants dealing in silk goods.

13. There is no doubt that Mysore Silk is superior to the imported silk as regards lustre, strength, elasticity and durability. The silk merchants are fully aware of the superiority of the local silk.

14. Merchants dealing in silk goods supply raw materials to approved weavers and the latter are required to deliver to them the woven fabrics, the wages due being adjusted in the accounts. To secure the confidence of the merchant, the weaver has to be careful about the quality and design of the fabrics and delivery within the time stipulated.

15. When artificial silk first came into the country some years ago, it affected the demand for real silk to some extent. Before long its wearing qualities were found to be unsatisfactory. The great disparity in price and also the too prominent glitter marked it out as an inferior article, and made it lose vogue with classes who were accustomed to wear silk. Now the artificial silk goods are in demand, partly as a fancy article, by those who generally go in for cotton goods. Artificial silk does not compete with silk in the same plane, but as it adds to the total supply of textiles, it contributes indirectly to reduce the price. If hosiery and combinations should come more into vogue in India then artificial silk would become an appreciable competitor.

16. The details of cost of weaving a saree 9 yds. long, 45 inches wide, weighing about 70 tolas, are shown below:—

	Rs. A.
(1) 2½ lbs. or 95 tolas of raw silk (Mysore Country)	
at Rs. 5-8 a lb.	13 1
	Rs. A.
(2) Twisting charges—	
(a) 38 tolas for warp at Re. 1-4 per lb. . 1 4	
(b) 57 tolas for weft at 4 annas per lb. . 0 6	
	1 10
(3) Dyeing charges 95 tolas at Re. 1 per lb.	2 6
(4) Weaving charges at Rs. 8 per saree	8 0
(5) Cost of labour for winding, warping, piecing, pirn winding, etc.	1 2
(6) Other charges—stores sundries, etc.	1 0
Total	27 3

The weavers working for merchants are paid by piece, i.e., Rs. 8 per saree. Extra rates are allowed where the designs to be woven are intricate and lace is required to be used.

17. The chief objects of the Weavers' Co-operative Societies are generally to advance money to the members who supply them with raw materials and to find sales for the finished goods. The extent to which the assistance is rendered by any society depends on the amount of working capital it can command, and its ability to effect quick sales. Money is advanced on the security of finished goods from 60 to 75 per cent. of their estimated value. Some societies undertake to supply raw materials, but their efforts in this connection have not met with satisfactory results.

18. The merchants meet the requirements of the local market. They have also built up a regular market outside the State. The silk goods are exported to Madras and other consuming centres in Southern India. The weavers generally dispose of their goods locally to the merchants. During the marriage season weavers make direct sales to the customers. The weaver has not to meet freight and other charges.

19. The demand for silk goods is increasing. The rise in the demand in recent months is due to fall in price of the silk goods rendered possible by the use of cheap foreign silks. The demand is from those classes who are accustomed to use of cotton goods.

20. Silk consumed in the State is partly local silk and partly silk imported from abroad.

(4) *Letter No. 15, dated the 25th March, 1933, from Assistant Superintendent of Sericulture, Bangalore.*

As desired by the Director of Industries and Commerce in Mysore, I send herewith six copies each of the following statements as required by the Indian Tariff Board at the time of oral evidence of representatives of Mysore Government.

Enclosure No. 1.

Distribution of Mulberry Saplings for raising Mulberry Topes.

Year.	No. of Sapling supplied.
1926-27	300
1927-28	1,500
1928-29	2,500
1929-30	5,000
1930-31	5,000
1931-32	5,000
Total	19,300 for six years.

Average per year—3,550.

About 50 per cent. of this are failures. The 50 per cent. failure is due to the fact that the saplings are raised out of "Cuttings" and due to unfavourable seasonal conditions. To minimise failures as well as to get better trees "seedlings" are being raised to plant mulberry topes. Of the remaining about 70 per cent. of trees are planted in open fields and the remaining are on borders of raiyats' lands. The approximate area covered by the former is about 32 acres. The mulberry topes planted since 1929-30 are better kept than the ones planted before that year, the reason being that the raiyats began to realise the advantages since then.

Saplings two years old are supplied free of cost to raiyats from the Government Mulberry Gardens.

To encourage planting of mulberry topes, Government have sanctioned certain concessions regarding grant of land and assessment, etc.

Enclosure No. 2.

Area under Mulberry in Mysore during several years.

Year.	Acres.	Guntas.	Year.	Acres.	Guntas
1914-15 . .	25,000	0	1924-25 . .	35,200	0
1915-16 . .	28,000	0	1925-26 . .	48,936	0
1917-18 . .	35,000	0	1926-27 . .	53,483	4
1918-19 . .	35,766	0	1927-28 . .	50,194	4
1919-20 . .	30,316	0	1928-29 . .	46,312	20
1920-21 . .	...		1929-30 . .	43,624	25
1921-22 . .	31,573	0	1930-31 . .	42,881	20
1922-23 . .	33,592	0	1931-32 . .	36,511	4
1923-24 . .	29,589	0			

N.B.—Figures from 1914-15 to 1924-25 were not checked by Sericulture Department. Figures from 1925-26 onwards have been checked by the department.



Enclosure No. 3.

Statement showing the Index Numbers of wholesale prices at Bangalore of selected articles during the years 1926 to 1932.
(July, 1914, is the best year. Prices of all the commodities—100.)

Month and year.	Rice.	Paddy.	Ragi.	Javari.	Horsegram.	Till seed.	Ground-nut.	Jaggary.	Copra.	Arcunut.	Coffee.	Silk.
<i>1926.</i>												
January . . .	148	147	210	160	136	164	160	165	101	155	205	109
February . . .	144	127	190	134	129	166	166	148	147	138	205	112
March . . .	148	149	181	131	126	188	178	136	144	146	245	114
April . . .	144	160	184	140	125	207	177	131	141	144	280	124
May . . .	144	153	175	137	126	196	194	143	138	141	280	135
June . . .	152	159	191	134	145	177	210	144	136	155	283	140
July . . .	156	171	200	147	148	183	227	156	136	187	292	119
August . . .	152	171	198	144	139	184	214	166	135	185	272	114
September . . .	152	168	192	142	139	189	181	156	132	180	267	119
October . . .	152	153	164	144	124	189	166	147	137	161	267	110
November . . .	152	167	176	145	127	191	157	149	143	161	267	105
December . . .	156	152	193	145	171	192	146	156	143	168	267	108
<i>1927.</i>												
January . . .	154	149	190	141	192	185	186	134	140	154	224	115
February . . .	147	163	185	158	227	188	216	117	135	158	208	134
March . . .	152	178	176	159	207	189	209	114	138	161	208	124
April . . .	147	172	177	159	219	191	204	105	101	158	205	126
May . . .	148	167	174	159	240	193	210	104	107	178	212	130
June . . .	150	173	184	159	258	192	212	109	108	171	239	129
July . . .	148	176	188	159	254	192	220	132	106	161	263	114
August . . .	148	174	182	159	254	187	218	115	99	168	249	112

September	148	175	186	158	254	153	213	109	95	170	249	114
October	148	176	180	156	272	165	212	124	106	157	261	104
November	153	178	198	156	274	171	172	137	103	153	261	108
December	152	163	193	155	272	162	185	130	104	153	253	113
1928.												
January	145	147	186	156	181	163	211	113	101	142	256	115
February	145	151	177	156	176	153	211	108	105	147	256	110
March	145	166	167	152	200	139	209	104	107	147	257	99
April	145	160	169	156	191	146	209	95	105	147	262	99
May	145	156	171	156	188	146	213	101	106	147	262	100
June	145	161	180	137	197	143	222	115	108	147	262	98
July	141	154	187	134	205	141	221	113	108	144	262	100
August	146	158	184	139	202	145	234	152	111	144	253	96
September	146	166	188	142	202	143	230	172	112	147	253	91
October	143	165	208	155	198	151	214	181	121	150	253	99
November	141	158	196	151	186	154	212	204	112	145	253	99
December	139	153	201	147	149	139	191	197	114	117	253	102
1929.												
January	140	138	196	153	144	139	109	186	110	143	277	109
February	137	139	200	148	146	141	169	157	117	152	284	115
March	141	139	175	151	146	138	165	148	125	152	287	110
April	146	142	179	136	145	145	129	158	114	157	287	108
May	140	138	173	137	153	142	132	176	118	152	287	105
June	144	127	169	133	144	137	130	196	127	163	287	102
July	140	129	176	128	144	131	139	198	120	151	287	100
August	140	139	184	135	145	112	154	201	115	144	287	100
September	138	140	187	139	155	116	160	208	116	142	282	99
October	138	136	173	140	141	119	155	212	112	147	277	98
November	137	130	172	132	128	113	143	209	114	147	277	96
December	139	142	169	131	125	115	135	205	114	147	277	100

Month and year.	Rice.	Paddy.	Ragi.	Javari.	Horsegram.	Till seed.	Ground-nut.	Jaggary.	Copra.	Aracnut.	Coffee.	Silk.
<i>1930.</i>												
January . . .	138	127	165	131	129	121	136	152	114	147	271	100
February . . .	126	122	154	131	114	121	127	125	114	147	256	100
March . . .	124	122	145	127	113	123	121	128	114	147	250	98
April . . .	127	133	133	121	114	124	124	118	111	134	247	97
May . . .	121	130	133	119	117	134	123	121	111	132	237	99
June . . .	117	122	122	99	122	125	119	120	96	105	230	98
July . . .	113	110	121	99	116	131	114	118	97	114	234	85
August . . .	114	111	114	92	119	112	103	126	77	108	234	76
September . . .	113	108	113	93	118	96	103	126	77	110	234	69
October . . .	115	115	110	86	115	97	80	116	79	89	234	65
November . . .	108	110	94	98	112	97	63	115	73	84	228	58
December . . .	106	99	89	89	114	100	69	117	71	84	209	62
<i>1931.</i>												
January . . .	103	83	86	88	98	96	59	112	67	79	194	77
February . . .	90	77	77	88	88	96	69	102	65	82	185	74
March . . .	90	76	76	88	88	93	88	85	65	84	177	70
April . . .	90	89	68	85	99	115	82	68	66	90	201	68
May . . .	85	84	59	75	93	113	66	63	57	92	209	66
June . . .	82	76	58	66	96	105	49	60	55	94	209	66
July . . .	83	71	66	66	99	108	60	67	54	103	215	62
August . . .	92	82	73	66	105	107	63	88	54	101	236	59
September . . .	89	82	78	66	115	102	60	87	51	97	248	59
October . . .	90	82	81	66	108	96	69	84	50	97	241	64
November . . .	90	87	97	69	119	90	65	83	64	96	243	78
December . . .	90	89	101	69	121	91	61	73	69	95	242	92

Enclosure No. 4.

Statement showing the expenditure and yield of the rearings of different races of silkworms at the Government Silk Farm, Channapatna (Cellular Rearing).

Experimental Section, Channapatna.

No.	Name of race.	Quantity of D. F. L. reared.	Cost of D. F. L.	Quantity of mul- berry leaf used.	Cost of food.	Labour.	Total expen- diture.	Quantity of yield.
		Oz.	Rs. A. P.	Lbs.	Rs. A. P.	Rs. A.	Rs. A. P.	Lbs.
1	Pure Mysore . . .	1	1 0 9	1,420	44 6 0	5 2	48 8 9	56
2	Chinese Univoltine . .	1	1 0 9	1,300	40 10 0	4 11	46 5 9	80
3	Chinese Bivoltine . .	1	1 0 9	1,350	42 3 0	4 11	47 14 9	92
4	Japanese Univoltine . .	1	1 0 9	1,350	42 3 0	4 11	47 14 9	75
5	Japanese Bivoltine . .	1	1 0 9	1,400	43 12 0	4 11	49 7 0	88
6	Fixed races crosses . .	1	1 12 0	1,300	38 3 8	4 11	44 10 8	81
7	Mysore × Chinese Uni- voltine Fl.	1	1 12 0	1,200	37 8 0	4 1	43 5 0	70
8	Mysore × Chinese Bi- voltine Fl.	1	1 12 0	1,200	37 8 0	4 1	43 5 0	70
9	Mysore × Japanese Univoltine Fl.	1	1 12 0	1,200	37 8 0	4 1	43 5 0	72
10	Mysore × Japanese Bivoltine Fl.	1	1 12 0	1,200	37 8 0	4 1	43 5 0	70

Enclosure No. 5.

COST OF PRODUCTION OF COCOONS, AUGUST, 1930.

Accounts of a rearer.

XUNGKI TOWN—KWONGTUNG PROVINCE—SOUTH CHINA.

Area under mulberry—4 Mows (about 5 mows=1 acre).

Cost of cultivation of land.

	Canton Dollars.
1. Rent on land	165.00
2. Wages	100.00
3. Fertilizers	40.00
4. Land tax contribution	5.50
5. Cost of leaves purchased	480.00
	790.50
	or 800.00

Yield of cocoons—1,800 lbs.

Therefore per pound of cocoons cost of production—

$$\frac{\text{Rs. } 800 \times 88}{100 \times 1,800} = \text{As. } 6.3 \text{ per lb.}$$

N.B.—The above does not include cost of appliances and family labour charges.

Enclosure No. 6.

COST OF PRODUCTION OF SILK (UNIT 1 PICUL), AUGUST, 1930.

YUNGKI TOWN--KWONGTUNG PROVINCE--SOUTH CHINA.

Steam Filature.

	Canton Dollars.
1. Cost of 16 Piculs of cocoons	1,275·00
2. Reeling wages	250·00
3. Power, light, miscellaneous, etc.	100·00
	<hr/>
	1,625·00
	<hr/>

or Rs. 1,430 per picul of 133 lbs. of silk at exchange.

Rs. 88=Canton Dollars 100·00.

This works out to about Rs. 10-12 per lb.

N.B.—Selling price was Canton Dollars 1,720·00. This works out to Rs. 11 per lb.



Enclosure No. 7.

Cost of production for 1 lb. of silk (Mysore Government Filature).

Details.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Cost of cocoons . . .	13 5 6 21 to 1	10 14 0 18 to 1	9 12 9 18-5 to 1	10 15 9 19 to 1	10 10 9 20-7 to 1	9 6 0 21-5 to 1	6 4 10 22 to 1	6 14 0 20 to 1
2. Cost of labour . . .	1 7 2	1 10 11	0 14 3	0 13 9	0 14 7	0 13 1	1 0 0	0 13 11
3. Cost of light, power and water	1 4 5	1 4 7	0 15 5	0 14 3	1 1 0	0 10 1	0 10 6	0 10 6
4. Cost of supervision and management.	2 5 11	1 1 0	1 7 6	0 12 7	0 15 6	0 10 9	1 0 0	1 1 0
5. Cost of repairs and maintenance	0 7 0	0 8 2	0 7 8	0 4 9	0 4 2	0 1 9	0 2 9	0 4 11
6. Selling expenses . . .	0 2 5	0 2 9	0 3 9	0 0 9	0 1 0	0 0 6	0 1 9	0 1 4*
7. Other expenses as oil, etc., .	0 13 6	0 13 5	0 13 6	0 1 0	0 1 0	0 1 10	0 2 4	0 2 0
8. Transport and stifling charges .	0 10 6	0 9 0	0 8 3	0 9 6	0 10 3	0 10 9	0 11 0	0 9 0
TOTAL .	20 8 5	16 15 10	15 2 7	14 8 4	14 10 3	12 6 9	10 1 2	10 8 8

* Direct and commission sales.

Enclosure No. 8.

Details of working capital required for a filature of 18 basins at the present time, provided these are three turn-overs during a year.

	Rs.	A.	P.
1. Establishment charges and wages	10,460	0	0
2. Amount required for cocoons at 400 lbs. per day for 300 working days— 400 × 300 = 120,000 lbs. at five annas per lb.	37,500	0	0
3. Stifling and other charges per day Rs. 15-6 for 300 days	4,612	8	0
4. Fuel at Rs. 13-8 per day for 300 days	4,050	0	0
5. Water at Re. 1-12-8 per day for 300 days	537	8	0
6. Power at Re. 1-9-6 per day for 300 days	478	2	0
Total	57,638	2	0
Dive Rs. 57,638-2 by 3 turn-overs	19,212	11	4
(a) Add—Cost of cocoons to be stocked 4 months—supply at 400 lbs. a day for 100 days at five annas per lb.	12,500	0	0
(b) Stifling and transport charges	1,218	12	0
Grand Total	32,931	7	4

Enclosure No. 9.

Price of Tsatlee in Bombay.

28th February, 1933 Rs. 4-11 per lb.

Enclosure No. 10.

COST OF PRODUCTION OF FILATURE SILK 28/30 DENIER.

Details of expenditure per working day of nine hours (12 Basins only).

Item No. 2.—Stifling and other charges—

	Rs.	A.	P.	Rs.	A.	P.
1. Stifling charges	2	11	4			
2. Transport charges	5	6	8			
3. Selling expense	2	2	0			
				10	4	0

Item No.—

4. Fuel only	9	0	0
5. Water	1	3	0
6. Power	1	1	0

Item No. 8.—Indirect charges—

1. Technical Assistant	2	8	0
2. Filature Assistant	1	12	0
3. Accountant	1	4	0
4. Mechanic	1	2	0
5. Fireman	0	12	0
6. Peons and Watchman	0	10	0
7. Allowance for reeling operatives	0	4	0
			8 4 0

Details of establishments required for 18 Basins.

	Rs.	Rs.
Technical Assistant, Rs. 100 (100×12) . . .	1,200	
Filature Assistant, Rs. 80 (80×12) . . .	960	
Storekeeper, Rs. 70 (70×12) . . .	840	
Mechanic, Rs. 35 (35×12) . . .	420	
Fireman, Rs. 20 (20×12) . . .	240	
Allowance to reeling operatives—		
Rs. 7 (7×12) . . .	84	
Rs. 5 (5×12) . . .	60	
		3,804
1 peon on Rs. 12 (12×12) . . .	144	
1 peon on Rs. 10 (10×12) . . .	120	
Watchman on Rs. 10 (10×12) . . .	120	
		384
18 Reelers at Rs. 15 each (18×15×12) . . .	3,240	
12 Cookers at Rs. 7 each (12×7×12) . . .	1,008	
6 Cookers at Rs. 8 each (8×6×12) . . .	576	
5 Knotters at Rs. 7 each (5×7×12) . . .	420	
2 Waste preparers at Rs. 8 each (2×6×12) . . .	144	
1 Skein Maker at Rs. 12 (12×12) . . .	144	
3 Silk Examiners at Rs. 10 each (10×3×12) . . .	360	
		6,276
Total		10,464

*Enclosure No. 11.**The cost of cultivation of one acre of rainfed mulberry garden per annum.*

	Rs. A.
1. Land revenue	1 12
2. Manure	25 0
3. Labour—	Rs.
Digging	35
Weeding	10
Manuring	4
Pruning	5
	—
4. Miscellaneous	54 0
	3 0
	83 12
	or
	84 0

*The average production of leaves per acre of land is about 6,000 lbs.**Cost of production of cocoons from leaves of one acre of rainfed mulberry garden per year.*

	Rs. A.
1. Cost of silk worm seed	7 14
2. Cost of food for worms—cost of mulberry leaves	83 12
3. Cost of appliances as trays, stands, chandrikes, etc.	5 0
4. Cost of extra labour for plucking leaves after fourth moult	18 12
5. Miscellaneous	2 13
	118 3

Cost of per pound of cocoons—five annas.

By selling the cocoons at five annas a pound, the rearer who is successful with all his crops does not suffer any loss. Generally, the rearer of silk worms utilises the mulberry leaves produced from his own garden. In the case of cultivating one acre of mulberry garden, the heavy items of expenditure are labour and manure. A major portion of the manure required for the garden is not purchased but is available in the rearers' family as he generally maintains cattle for other agricultural operations and as the silkworm litter produced in rearing silk worms is also used as manure for the mulberry garden. For digging, weeding and manuring and other cultural operations in the garden, family labour is used to a large extent. As such the actual amount paid to outsiders is limited. A man having one acre rainfed mulberry garden may produce on an average of about 15 maunds or 375 lbs. of cocoons per annum. Even if he sells these cocoons at the actual cost of production, i.e., five annas a pound, he will get an income of about Rs. 40. The mulberry cuttings obtained in each year after pruning will supply fuel to the family. The income from this may put at Rs. 5 per year. The silkworm litter is used as food for cattle. If there is a ready sale for the cocoons produced by the rearer, he does not actually suffer any loss. But his income is very limited as compared to what he would get under normal conditions. If he loses two crops and gets 260 lbs. only, he will realise Rs. 81-4 but he does not lose any money invested but does not get remuneration for his family labour. He will be making a little money if he gets his crops successfully when cocoon prices are high during the year even though he loses two crops. The tendency has been now to see that all the crops are successful.

Enclosure No. 12.

Bombay Imports.

F. o. b. price as on 28th February 1933.	No.	Kinds.	Tariff valuation.	MARKET RATE	
				Per lb.	Per seers of 7- tolas.
Lbs.			Rs. A.	Rs. A.	Rs. A.
480 Tael	1	Minchow Filature (Best) Fine D.	4 0	5 8	10 6
375 "	2	Minchow Filature		4 8	8 8
425 "	3	Minchow Re-Reeled Kubin (Shanghai).		5 1	9 8
380 "	4	Re-Reel (Shanghai).		4 8	8 8
380 "	5	Minyang R/R		4 8	8 8
200 "	6	Inferior R/R		2 3	5 0
260 "	7	Minchow Long Reel Native		3 8	6 8
255 "	8	Kubin Long Reel Native		3 7	6 6
"	9	Shantung Long Reel		3 3	6 0
345 "	10	Tsing Chew Long Reel		3 10	6 12
215 "	11	Laiminyang Long Reel	4 4	2 15	5 8
280 "	12	Hoyang		3 10	6 12
250 "	13	Fanchow White Reel		3 10	6 12
280 "	14	Kakadia White Reel		3 14	7 4
380 "	15	Tsatlee Short Reel		4 11	8 12
285 "	16	Shanghai Dupplion Filature		3 8	6 8
210 "	17	Dupplion		2 6	4 8
520 \$	18	Canton Filature		4 12	8 14
"	19	Long Reel mahoug or salsa		3 6	6 4
370 Yen.	20	Japanese Dupplion R/R <i>Advalorem</i> (on invoice)		3 8	6 8
300 "	21	(Inferior)		2 5	5 4
"	23	Punjum . . . . .	..	..	..

Exchange--
 Canton 88
 Shanghai 115
 Yokohama 89 } T. T

Enclosure No. 13.

Government Filature, Mysore.

Year.	AVERAGE PRICE PER POUND AT WHICH SILK AND WASTE WERE SOLD.		
	Silk.	Denier.	Waste.
	Rs. A. P.		Rs. A. P.
1924-25	21 1 8	13/15	2 3 6
1925-26	14 5 2		2 1 0
1926-27	13 5 1	28/30	2 0 0
1927-28	12 0 0		1 2 0
1928-29	11 14 9		1 2 0
1929-30	11 15 10		1 0 0
1930-31	9 0 4		0 9 0
1931-32	8 0 0		0 8 0
1932-33 (six months)	8 0 0		0 8 0

Details of deniers reeled in each of the last five years.

Year.	Total silk reeled.	28/30.	20/22.	16/18.	13/15.	Odd sizes.
	Lbs. Tol.	Lbs. Tol.	Lbs. Tol.	Lbs. Tol.	Lbs. Tol.	Lbs. Tol.
1927-28	3,040 29	2,922 20	54 11	Nil	63 38	..
1928-29	2,737 27	451 14½	99 25½	2,161 23½	25 6	..
1929-30	6,098 5	4,681 31	11 15	1,341 11½	20 11	43 16½
1930-31	4,936 19½	4,936 19½	..	..	..	..
1931-32	3,152 14½	1,714 9½	1,198 34	Nil	239 11	Nil

Enclosure No. 14.

Distances and freights.

	Freight for 75 lbs. Rs. A.
Madras to Conjeevaram—57 miles	0 12
Madras to Trichinopoly—249 miles	2 12
Madras to Salem—208 miles	2 8
Bangalore to Conjeevaram—276 miles	2 14
Bangalore to Trichinopoly—289 miles	3 0
Bangalore to Salem—164 miles	2 5

Enclosure No. 15.

Supply of Cellular Disease Free Layings in Mysore State.

Year.	Number supplied by Government Grainage.	Number supplied by Aided Grainages.	Number supplied by Seri. Co- operative Societies.	Total.
1927-28	684,727	2,100	45,766	732,593
1928-29	813,132	312,080	84,383	1,209,593
1929-30	1,044,540	710,546	140,055	1,895,141
1930-31	1,290,804	1,278,575	123,200	2,692,579
1931-32	1,542,723	1,524,178	143,460	3,210,361

Supply of Hybrid Layings from Government Grainages.

	Layings.
1927-28	219,81£
1928-29	325,778
1929-30	324,015
1930-31	297,392
1931-32	565,939

Enclosure No. 16.

ANNEXURE TO QUESTION No. 44.

*Statement showing the import of foreign silks into Bangalore by a few Silk
Koti Merchants in Bangalore.*

Year.	Canton steam flatware.	Shanghai.	Tsatlee.	Dupp- ion.	Kakadia.	Kaiyung.	Fanchow.	Total.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1927-28	156	..	368	6,572	317½	27	8½	7,449
1928-29 . . . . .	..	16	..	5,749	..	..	..	5,765
1929-30	1,351½	17	..	13,717	..	..	214	15,299½
1930-31	6,665	..	..	6,948	..	..	..	13,613
1931-32	19,315	..	..	5,141	..	..	..	24,456
1932-33 (up to end of Dec.)	44,264	..	154	2,118	..	..	270	46,806
TOTAL	71,751½	33	525	40,245	317½	27	492½	1,13,388½

Enclosure No. 17.

Statement showing details of depreciation under several heads.

Year.	Depreciation.	Machinery 2 per cent. and 5 per cent.	Tools and Plant 10 per cent.	Furniture 10 per cent.	Stifling 5 per cent.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1927-28*	894 10 0	682 2 0	34 2 0	178 6 0	..
1928-29	713 10 7	485 15 7	37 15 6	189 11 6	..
1929-30†	694 2 5	411 0 7	41 0 10	242 1 0	..
1930-31	859 11 3	546 6 8	45 12 7	243 10 6	23 13 6
1931-32	984 1 3	705 13 1	36 8 8	225 10 6	16 1 0
TOTAL	4,146 3 6	3,831 5 11	195 7 7	1,079 7 6	39 14 6

* From 1927 to 1929 only 2 per cent. on machinery.

† From 1929 onwards 5 per cent. on machinery.

Depreciation.

—	Total amount of depreciation.	Buildings.	Stifling house.	Machinery.	Tools and plants.	Fixtures and fittings.	Furniture.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.	Rs. A.
1924-25	1,104 8 1	75 13 0	53 2 10	724 8 3	23 14	48 12	178 6
1925-26	1,022 6 5	36 7 9	22 9 9	710 1 11	23 14	24 6	178 6
1926-27	901 10 0	..	..	689 2 0	34 2	..	178 6

Enclosure No. 18.

GOVERNMENT FILATURE, MYSORE.

(Interest on working capital is not included in the statement showing the details of cost of production.)

Interest on capital at 5½ per cent. per annum.

				Interest for one year.		Per pound of silk.	
				Rs. A. P.		Rs. A. P.	
1924-25	.	.	.	3,297	7 0	Rs. 3,297 lbs. 2,502 of silk . Rs. 3,667	1 5 3
1925-26	.	.	.	3,667	8 0	lbs. 1,992 of silk . Rs. 3,522	1 13 5
1926-27	.	.	.	3,522	1 0	lbs. 1,874 of silk . Rs. 3,768	1 14 0
1927-28	.	.	.	3,768	3 8	lbs. 3,040 of silk . Rs. 2,368	1 3 9
1928-29	.	.	.	2,368	4 10	lbs. 2,737 of silk . Rs. 2,368	0 13 10
1929-30	.	.	.	2,368	4 10	lbs. 6,098 of silk . Rs. 3,298	0 6 2
1930-31	.	.	.	3,298	12 0	lbs. 4,936 of silk .	0 10 8

Year.	Opening stock.	Silk manu- factured.	Total.	Quantity of silk sold.	Closing stock.
	Lbs. oz.	Lbs.	Lbs. oz.	Lbs. oz.	Lbs. oz.
1924-25	764 24	2,502	3,266 20	1,954 10	1,312 10
1925-26	1,312 10	1,992	3,304 10	1,281 20½	2,022 23½
1926-27	2,022 23½	1,874	3,896 23½	3,624 32	271 31½
1927-28	271 31½	3,040	3,311 31½	917 7	2,394 24½
1928-29	2,394 24½	2,737	5,131 24½	4,639 23½	492 1
1929-30	492 1	6,098	6,590 1	4,105 37	2,484 4
1930-31	2,484 4	4,936	7,420 4	5,732 33	1,687 11
1931-32	1,687 11	3,152	4,839 11	4,430 7½	409 3½

Enclosure No. 19.

	Works expen- diture.	Deduct value of waste.	Net work expenditure.	Production of silk during the year.	Average cost per pound of silk.
	Rs. A. P.	Rs. A.	Rs. A. P.	Lbs.	Rs. A. P.
1924-25	55,553 5 0	4,187 15	51,365 6 6	2,502	20 8 5
1925-26	36,019 12 7	2,178 9	33,841 3 7	1,992	16 15 10
1926-27	29,832 7 3	1,417 8	28,414 15 3	1,874	15 2 7
1927-28	45,176 13 1	1,031 0	44,145 13 1	3,040	14 8 4
1928-29	41,098 5 8	1,024 0	40,074 5 8	2,737	14 10 3
1929-30	78,027 15 6	2,269 0	75,758 15 6	6,098	12 6 9
1930-31	51,658 2 2	1,921 8	49,731 10 2	4,936	10 1 2
1931-32	34,332 14 6	1,098 0	33,234 14 6	3,152	10 8 8

(5) Letter No. D. 4-8/32-33, dated the 12th/13th April, 1933, from the Director of Industries and Commerce, Mysore.

With reference to the personal request of the President, I have the honour to enclose herewith two statements (four copies each) furnishing details for the initial expenditure for an acre of rainfed mulberry garden furnished in reply to question No. 11 and for the recurring expenditure of an acre of rainfed mulberry garden as given in the Memorandum and in paragraph 4 of the replies to question No. 10 of the questionnaire.

Enclosure No. 1.

INITIAL COST OF PLANTING ONE ACRE OF RAINFED MULBERRY GARDEN.

	Rs. A.
1. Ploughing, levelling, etc., of 6 preliminary ploughings (deep ploughing necessary for mulberry) at Re. 1 per day. 15 ploughs are necessary with men and bullocks . . .	15 0
Hoeing, levelling, removing weeds, making rows, etc.	8 0
	<hr/> 23 0 <hr/>
In the case of gardens, which are planted after digging, no hoeing and removing weeds necessary; but at the time of digging these are attended to, the cost of digging is about Rs. 20 and of levelling, making rows, etc., Rs. 3.	
2. Cost of manure:—20 cwt. cart loads at 14 annas per cart load (varies from 12 annas to Re. 1 per cwt.)	17 8
Coolie for loading manure to carts, cart-hire to field, cost of unloading near the field (depending upon distance)—	
4 annas per cart load × 20 (if near by)	5 0
Coolie (female) 8 × 3 annas a day	1 8
Spreading manure, etc., male 3 × 6 annas a day	1 2
	<hr/> 25 2 <hr/>
3. Cost of cuttings:—1 cart load of cuttings	4 0
Cart-hire, loading and unloading	1 0
Labour for cutting into required sizes and bundling—	
3 male coolies × 6 annas	1 2
2 female coolies × 3 annas	0 6
	<hr/> 6 8 <hr/>

	Rs. A.
4. Planting charges:—4,000 pits—13 female coolies at 3 annas a day (300 pits per collie per day)	2 7
5. Watering the newly planted cuttings:—With pots—once in 3 days for 2 months, i.e., 20 times. About 75 female coolies at 3 annas each	14 1
6. Weeding, hoeing, etc.:—3 months after planting (generally “Kunte” is used for this)	2 8
	<hr/>
	73 10 or
	73 8 roughly.
	<hr/>

In Channapatna, Kunigal, Malavalli and Bidadi areas, planting of new gardens is attended to before the busy agricultural season commences. Hence labour is cheaper at that time.

Enclosure No. 2.

RECURRING EXPENDITURE FOR MAINTAINING ONE ACRE OF RAINFED MULBERRY GARDEN—AVERAGE FOR THE MYSORE STATE.

Details for figures furnished on page 9 of Memorandum and in reply to question No. 10 of questionnaire (4th paragraph).

	Rs. A.
1. Land Revenue	1 12
2. Manure—	
20 cart loads at Re. 1 per cart load	20 0
Cart hire for transport at 4 annas per cart load	5 0
3. Labour—	
(a) Digging:—5 diggings including levelings after each digging. Altogether 100 male coolies at 6 annas a day	37 8
(b) Weeding, planting, rainfed pits, removing old leaves after each harvest, etc., 30 female coolies at 4 annas a day	7 8
(c) Manuring:—Application of manure including loading charges—	
12 female coolies at 4 annas a day	3 0
3 male coolies at 6 annas a day	1 2
(d) Pruning—	
10 male coolies at 6 annas a day	3 12
5 female coolies for collecting and removing cuttings to remove old leaves, etc., 4 annas a day	1 4
	<hr/>
	54 2
	<hr/>

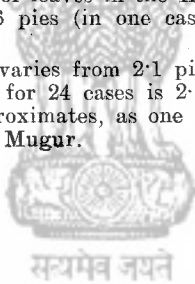
	Rs. A.
4. Miscellaneous:—That is cost of baskets for manure, repairs and cost of garden implements, etc.	3 0
Total	83 14 or 84 0 only.

N.B.—Most of the agricultural operations have to be done during the agricultural season when both agricultural labour and manure cost more than at other times. This is the reason why manure is here charged at Re. 1 (against 14 annas in the initial expenditure statement) per cart, and the wages of women coolies are put down at 4 annas (against 3 annas in the other statement).

(6) *Letter No. D. 4-8/32-33, dated the 28th April, 1933, from the Director of Industries and Commerce in Mysore, Bangalore.*

I have the honour to enclose for favour of submission to the Indian Tariff Board, two statements in tabular form, just received from the Superintendent of Sericulture, giving details of cost of cultivation, per acre, yield of mulberry leaves, and cost of mulberry leaves in the Mugur and Kollegal areas. The figures given have been obtained first hand from actual cultivators whose names are given in the statements and admit of verification. The actual cost per lb. of leaves in the Kollegal area varies from 1·87 pies (in one case only) to 4·6 pies (in one case only). The average (from 15 cases) is 3·0 pies per lb.

For Mugur area, the cost varies from 2·1 pies (in two cases) to 4·8 pies in one case, and the average for 24 cases is 2·6 pies per lb. You will see that the cost in Kollegal approximates, as one would expect from the similarity of conditions to that in Mugur.



Enclosure

Statement showing the details of Cultural Operations carried out in a year per acre
1 lb. of mulberry leaves in Kollegal

No.	Name.	Place.	Nature of soil.	COST OF CULTIVATION PER ACRE PER YEAR INCLUDING FAMILY LABOUR.		
				Value of family labour.	Payments in cash.	Total Cost.
				Rs. A. P.	Rs. A.	Rs. A. P.
	Messrs.—					
1	Madappa alias Puttasami.	Palya . .	Red .	24 0 0	25 12	49 12 0
2	Subramanya Iyer .	Tagarapura .	Black .	31 8 0	14 1	45 9 0
3	Nagappier . .	Karnam, Hosamalangi.	Red .	..	35 8	35 8 0
4	Mahantappa . .	Kajjihundi .	Do. .	40 4 6	12 1	52 5 6
5	Maridevaru . .	Seelakallupura .	Do. .	20 2 0	30 0	50 2 0
6	Mallappa . . .	Kajjihundi .	Do. .	20 2 0	30 0	50 2 0
7	Sivanna . . .	Manegar, Chilkawadi.	Do. .	38 8 0	12 0	50 8 0
8	Gurulingappa . .	Seelakallupura .	Do. .	20 2 0	30 0	50 2 0
9	Naranaiya . . .	Manegar, Kuntur	Do. .	36 6 0	15 6	51 12 0
10	Dhundumaridevaru .	Alahalli . .	Do. .	52 4 0	13 13	66 1 0
11	Kalappa . . .	Alahalli . .	Do. .	31 0 9	6 0	37 0 9
12	Puttaswamy Setty .	Silk Merchant, Dodda Induwadi.	Do. .	31 8 0	13 0	44 8 0
13	Mallikarjunappa .	Sericulturist, Palya.	Do. .	38 0 0	10 10	48 10 0
14	Nagappa and others .	Kamayere . .	Do. .	30 8 0	25 4	55 12 0
15	Mahanta, Devam and others.	Kempanpalya .	Do. .	15 10 0	24 6	40 0 0

No. 1.

of Rainfed Mulberry Garden, the yield of leaves and the average cost of producing area, given by the Sericulturists.

CULTURAL OPERATIONS GIVEN IN A YEAR.			MANURING AND APPLYING SILT.		No. of pluckings in a year.	Quantity of leaves harvested in lbs.	Cost for produc- ing one lb. of leaves in pies	REMARKS.
Plough- ings.	Harrow- ings.	Weed- ings.	Cattle manure in carts.	Silt in carts.				
4	11	2	10	50	5	3,500	2.7	
3	15	1	15	..	6	2,500	3.4	
2	11	No	8	..	6	2,200	3.9	
2	18	1	8	..	5	3,200	3.0	
2	16	1	12	50	5	3,000	3.2	
2	16	1	12	50	5	2,800	3.4	
2	26	1	10	..	6	2,100	4.6	
2	16	1	12	50	5	2,800	3.4	
2	21	2	15	..	5	3,800	2.6	
6	19	3	15	..	5	3,400	3.7	
2	14	5	8	..	5	1,100	8.5	
4	25	2	12	..	6	4,000	2.1	
5	13	2	20	..	5	3,600	2.4	
3	15	1	10	..	5	3,900	2.7	
3	10	1	15	..	6	4,100	1.87	

Enclosure

*Statement showing the details of Cultural Operations carried out in a year per acre of
of mulberry leaves in Mugur*

No.	Name.	Place.	Nature or soil.	COST OF CULTIVATION PER ACRE PER YEAR INCLUDING FAMILY LABOUR.		
				Value of family labour.	Payments in cash.	Total Cost.
				Rs. A.	Rs. A. P.	Rs. A. P.
	Messrs.—					
1	Chinta Samuel . .	Mugur . .	Red . .	13 2	33 2 0	46 4 0
2	Basavanna . .	Kurubur . .	Do. . .	21 15	26 15 9	48 14 9
3	Chikkabasappana- Basappa.	Mugur . .	Do. . .	44 8	16 14 0	61 6 0
4	Rudrappana-Basappa.	Do. . .	Do. . .	51 0	20 2 0	71 2 0
5	Yelakoor Siddappa . .	Do. . .	Do. . .	39 0	19 6 0	58 6 0
6	Gowdar Madappa . .	Do. . .	Do. . .	55 4	18 2 0	73 6 0
7	Nanjappana Basappa	Do. . .	Do. . .	49 0	19 2 0	68 2 0
8	Puttamadaia . .	Kerohatti . .	Do. . .	48 4	13 10 0	61 14 0
9	Madappa	Do. . . .	Stony Gravel.	62 0	15 12 0	77 12 0
10	Gudihatti Subbappa . .	Do. . . .	Black . .	35 10	11 4 4	46 14 4
11	Kasipathaiya	Do. . . .	Red . . .	40 8	16 8 0	57 0 0
12	Gurulingappa	Honnur	Do. . . .	47 12	20 8 0	68 4 0
13	Nanjundaiya and Subbanna.	Mugur	Do. . . .	32 8	40 0 0	72 8 0
14	Gurumallappa	Kottegai	Black . .	46 13	15 11 0	62 8 0
15	Rangaswamaiya	Ketahalli	Red . . .	33 4	19 8 0	52 12 0
16	Puttasubbappa	Kurubur	Black . .	38 4	13 4 0	51 8 0
17	Javanappa	Kerohatti	Do. . . .	30 10	5 6 0	36 0 0
18	Javanegowda	Mugur	Red . . .	21 0	17 10 0	38 10 0
19	Kanakappa	Do. . . .	Black . .	48 0	25 14 0	73 14 0
20	Subramanyaia	Kestur	Red . . .	29 4	35 0 0	64 4 0
21	Lingappa	Mugur	Black . .	31 8	29 0 0	60 8 0
22	Veerarajames	Nilasoge	Red . . .	..	..	59 4 0
23	Lingannaiah	Madapana	Black . .	..	..	50 0 0
24	Chikkavasappa	Ummatur	Do. . . .	47 0	15 12 0	62 12 0

No. 2.

Rainfed Mulberry Garden, the yield of leaves and the average cost of producing 1 lb. area, given by Sericulturists.

CULTURAL OPERATIONS GIVEN IN A YEAR.			MANURE AND SILT GIVEN PER ACRE.		No. of times leaves harvested in the year.	Weight of leaves harvested from an acre in a year in pounds.	Cost of produc- ing one pound of leaves.	REMARKS.
No. of plough- ings.	No. of harrow- ings.	No. of weed- ings.	Cattle manure in cart loads.	Silt in cart loads.				
2	17	2	5	20	6	3,800	2.3	
3	16	2	20	1	5	4,200	2.2	
2	16	2	20	..	5	4,700	2.5	
3	22	3	20	..	6	6,300	2.1	
2	15	2	15	..	6	4,800	2.3	
2	23	3	18	..	6	5,800	2.4	
3	18	3	20	..	6	6,000	2.1	
4	20	3	15	..	5	4,000	2.9	Soil very hard.
4	30	2	15	..	5	3,200	4.8	Hard stony gravel. Cost high for cul- tivation.
2	20	3	10	16	5	3,650	2.5	
2	24	..	10	20	5	4,500	2.4	
2	18	2	20	..	6	5,300	2.5	
2	20	2	20	..	6	5,000	2.8	
2	14	2	20	..	5	4,500	2.7	
2	18	2	15	..	5	3,500	2.9	
4	20	2	15	..	5	4,300	2.3	
2	6	1	15	..	5	3,000	2.3	
..	20	2	12½	..	5	2,400	3.1	
4	28	2	15	..	6	5,500	2.5	
4	13	3	20	12	6	4,900	2.5	
3	20	1	14	..	5	4,400	2.6	
2	13	3	15	..	5	4,500	2.52	
3	15	3	10	..	5	3,100	3.09	
3	20	1	15	..	5	5,000	2.4	

(7) *Letter No. D. 4-8/32-33, dated the 29th April, 1933, from the Director of Industries and Commerce in Mysore, Bangalore.*

In continuation of my No. D. 4-8/32-33, dated the 28th April, 1933, forwarding two statements in tabular form giving details of cost of cultivation of mulberry per acre, etc., in Mugur and Kollegal areas, I have the honour to state that the Superintendent of Sericulture has brought with him to Bangalore original signed statements from Sericulturists of Mugur and Kollegal areas giving full details regarding the cost of mulberry cultivation, etc.

The statements signed by the Sericulturists are available with me for submission to the Tariff Board whenever necessary.

(8) *D. O. letter No. D. 4-8/32-33, dated the 4th May, 1933, from the Director of Industries and Commerce, Bangalore.*

With reference to your request to Mr. N. Rama Rao during his examination by the Board on the 15th, 16th and 28th March, 1933, to inform the Board of the lines in which Government propose to help the Sericultural Industry to re-organise itself and lower the costs of production when protection is granted, I beg to state that I have now obtained the instructions of Government in the matter.

To Mysore, the Silk Industry is a vital affair, affecting as it does the prosperity of about a seventh of the population, even in its present condition. The Government have maintained a Department for over 15 years now to foster this industry, and a glance at the Departmental Budget will show the wide variety of problems tackled and the help rendered to the industry in all its stages from the cultivation of mulberry to the weaving of high class fabrics.

I am now authorised to say that, if the industry secures effective protection for a sufficiently long period the Government of Mysore will not spare any efforts to enlarge the programme of Sericultural Department and research, to enable the Mysore Sericulturists to take full advantage of that protection.

Government of His Highness the Maharaja Bahadur of Jammu and Kashmir.

(1) *Letter dated the 28th December, 1932.*

I am desired by the Government of His Highness the Maharaja Bahadur of Jammu and Kashmir to forward seven copies of a memorandum embodying the views of the Government of Jammu and Kashmir on the necessity for increase in duty on imports of silk yarn and silk goods.

RAW SILK INDUSTRY IN THE PROVINCES OF JAMMU AND KASHMIR.

The Province of Kashmir as it lay on the Trade route between China and India was from its early days acquainted with the silk-worm. It would not be necessary to give reference to the Chinanshunk which occurs in Sanskrit literature and the use of which was well known in the Northern India, the then centre of civilised life in India. Mr. Rawley's book on "Economics of the silk industry" has, at pages 21, 22, and 30 to 45, dealt with the historical aspect of the subject exhaustively so far as the connection of the Sericulture Industry with the Province of Kashmir is concerned. It would therefore be superfluous to deal with the subject at any length here.

It appears that about half a century ago an outbreak of Pebrine disease practically exterminated the indigenous breed. The subsequent history of the resuscitation of Sericulture in Kashmir is well known and dates with

the successful efforts of Sir Thomas Wardle, countenanced as they were by the Government of India and His Majesty's Secretary of State. From its inception the State adopted the policy of—

- (a) importing cellular foreign seed and distributing it to the zamindars (peasant-proprietors);
- (b) buying back cocoons from the zamindars; and
- (c) getting the silk reeled.

During the short period of time prior to the latest reorganization of the department, the industry was left in the hands of the people. It languished, however, for want of instructed guidance. It was apparent to the administration that left to itself the industry would not make any headway.

With the appointment of Mr. Walton as Director of Sericulture in 1897 the systematic organization of the department on the present lines can be said to have been made. The figures given in Statement A pertaining to rearing will show the progressive improvement in the industry since then.

It is apparent from the study of these figures that the number of rearers employed has been steadily growing. Similar remark applies to the quantity of seed issued. As regards the maundage of cocoons brought back to the State factory, the figures have steadily grown. It cannot be said that the progress throughout has relatively kept the same pace. The variations, however, appear to be clearly due to the propitious character of seasons or otherwise;

- (i) at the time of issue and incubation of seed; and
- (ii) during the subsequent period of rearing.

It need hardly be mentioned here that the abundant supply of mulberry leaf is another important factor which influences the weight of the cocoon crop. The conditions of housing as well as the incidence of disease are also powerful limiting factors.

The State on its side had to make provision for ample supply of mulberry leaf for the growing needs of the silk-worm. This was specially a difficult problem for the Province of Kashmir. Mulberry leaf appears at a time of the year, when cattle come out from the enforced idleness of winter, when fodder is scarce and the average agriculturist thinks little of the requirements of the silk-worm and is apt to give the leaf of the mulberry to the cattle. It was to prevent this that the State had to put on the Statute Book the Mulberry Rules which protect the mulberry trees from ruthless defoliation and preserve the leaf for the silk-worm. Then it was found that the plantation of the mulberry tree was looked upon as a nuisance by the zamindars and the State had again to arrange for the systematic cultivation of mulberry trees on State waste and village common lands. The Statements C and D show the efforts made in recent years in this direction in the Province of Kashmir as well as in Jammu where the industry has been taken up these last 25 years.

These statements will show that the State had to make a huge effort not only to preserve mulberry trees which were in existence but to extend their plantation and prevent the exploitation of the leaf for any use other than that of the silk-worm. In no part of India, it will be apparent, has such a systematic effort been made, by the State, for the after-care of the plant and preservation of the leaf for the use of the silk-worm as in the Kashmir State. From being unpopular and a nuisance, the mulberry tree is becoming for the zamindar the symbol of steady, progressive and persevering husbandry.

As regards improving the housing of the worm so as to give it the most favourable environment for its growth, an intensive propaganda has been carried on through the agency of itinerant staff for instructing the villager in the best methods of rearing worms. Advances have been given to the zamindar for improving the condition of the buildings devoted for the purpose of rearing and he has been assisted further with technical advice

and free gift of chemicals necessary for the purpose of successful rearing of the silk-worm.

The cocoons raised by the zamindar are taken over by the department on payment, as left to himself the zamindar would not be in a position to arrange for the reeling of the silk on lines that would ensure production of raw silk of the high grades of brands Lotus and Iris, that are the hall mark of Kashmir raw silk as reeled in the State filatures.

This brief preliminary statement will have made it clear that it was necessary for the State to have a monopoly of the industry of production of the cocoons as well as reeling of raw silk. It could not undertake to sink considerable capital in the plant and buildings of the industry (*vide* Statement F) as well as provide funds for financing it unless it could ensure a regular supply of raw material to come to the Factory to be worked under trained supervision. In short both in the Province of Kashmir as well as, for the last 25 years, in the Province of Jammu, the State has set up an organization at a considerable cost which provides for—

- (1) purchase and issue of disease-free seed free of cost;
- (2) adequate supply of mulberry leaves;
- (3) a peripatetic staff of advisers;
- (4) purchase of cocoons; and
- (5) subjecting the same to subsequent manipulative processes so as to ensure that superior quality of silk for which the Kashmir brand has earned a reputation in the Indian market.

To this end the whole of the Revenue staff, stipendiary, official and semi-official, has been mobilized to assist the regular staff of the Sericulture Department to see that all the processes mentioned above were put through successfully.

It will be apparent that the State realizing the favourable geographical and climatic conditions of the Provinces of Kashmir and Jammu in this respect has practically started a pioneer industry from its own funds. The climate of Kashmir answers all the requirements laid down by savants for rearing of the silk-worm. It is temperate and has the requisite humidity and range of temperature that would furnish an *optimum milieu* for the rearing of the silk-worm of the mono-voltine races which furnish silk fibre of the highest quality known as regards elasticity, tenacity and fineness. The habits of the people, as apart from other parts of India, lend themselves to the adoption of this industry. The Kashmir agriculturist has been gifted by nature with a patient, persevering and artistic temperament and he has readily taken to an industry that requires the co-operative effort of all the members of the family, men, women and children for its successful and cheap production. The soil and climate are equally ideal and favourable for the growth of the mulberry.

The location of the filatures in Srinagar has also peculiar advantages. There is the aforesaid advantage of climate; there is the facility of cheap and plentiful electric power; there is the abundance of water and supply of labour, which with its hereditary skill for artistic manipulation is fitted for the reeling of raw silk of superior quality.

Trade in general is appreciative of the excellence of the quality of Kashmir silk and in centres like Benares and Surat where Brocades, Benaresi Sarees, Dupattas, Crepes and Georgettes are produced, Kashmir silk with its superior quality will always be in requisition. It is necessary that for the maintenance of the artistic standards of superior silk cloth manufactured in India everything should be done to preserve quality from being beaten out of the race by competition with cheap stuff coming from abroad. Partiality is shown by trade to the use of Kashmir raw silk with its superior elasticity, tenacity and fineness to serve as a core to the gold thread in the gold thread industry, which with the present customs duty, has practically shut out the lyonnaise stuff from the Indian market. In the economy of

this gold thread industry with an outturn worth over a crore of rupees the use of the Kashmir raw silk is bound to find an increasing place. There was a time when the supply of mercerised yarn used as core was threatened, but now the gold thread industry need feel no anxiety so long as foreign cheap import does not kill out altogether Kashmir silk industry.

In paragraph 97 of the Report of the Indian Fiscal Commission the following three criteria have been laid down, the satisfactory fulfilment of which is a pre-requisite of any proposals for imposition of protective tariffs on imports:—

- (1) The industry must be one possessing natural advantages such as abundant supply of raw material, cheap power, a sufficient supply of labour or a large home market;
- (2) The industry must be one which without the help of protection either is not likely to develop at all or is not likely to develop so rapidly as is desirable in the interests of the country;
- (3) The industry must be one which will eventually be able to face world competition without protection.

The aforesaid brief statement of the case for Kashmir industry must have made it clear that the Sericulture industry possesses almost ideal natural advantages in both Kashmir and Jammu Provinces for growth and development and this development, under favourable conditions, is estimated to reach a production figure of over two million pounds of raw silk as against maximum possible production of two and a half lacs of pounds at present. The study of world statistics of the production of silk will make one point clear that the industry is migrating from middle Europe and travelling, at rapid strides, to the Far East. As a subsidiary rural industry it has ceased to be a paying proposition in France and to a certain extent in Italy also. It is bound to take root in areas where the labour available for its manipulation has no competitive remunerative occupation in rural economy. For this reason it is taking a firmer hold in India, China and Japan. While keeping this factor in view, that the industry is travelling eastwards, one special feature of the Province of Kashmir, and, one which has helped it all along in the past and which is not to be lost sight of, is the absence of prejudice against rearing of silk-worms and handling them which puts the Kashmir peasant at an advantage as compared with his confrères in certain parts of India with probably equal habitat.

As regards consumption of Kashmir raw silk in the home market we have to consider the whole of India as its market and not the Province of Kashmir itself. Here it used to enter in the production of superior shawls for which Kashmir has justly been famous as well as in the weaving of silk stuffs. The raw material is, however, finding a readier market in the rest of India where the cult of genuine Swadeshi has constituted a powerful factor in increasing effective demand. The figures of India's absorption vary, but for some time, taste for genuine silk cloth has increased, and, apart from the demand for artificial silk, India's consumption of raw silk may be taken to be nearly 2½ million pounds of its own production of the raw material and 2 million pounds of imports (*vide* the annual statement of the sea-borne trade of 1929-30). It will thus be apparent that there is an enormous field in the home market which the local market can easily cover—increased local production replacing foreign imports.

As regards criterion No. 2 the figures given in the letter of the Secretary of the Tariff Board are conclusive. The quantities imported during the last five years are 2.36, 2.13, 2.18, 1.94, and 1.56 million pounds. Though the figures for imports of the last two years may have fallen slightly the figures of imports for the first seven months of the year 1932-33 have come to the enormous figure of 2.14. A regular spate of foreign imports threatens complete inundation of the struggling industry of this country. What is worse, the figures of sea-borne trade indicate that there has been

cataclysmic fall in the price of the import article. The cost per pound for each of the five years mentioned above works out as per the table below:—

Year.	Average value in rupees per pound.	Year.	Average value in rupees per pound.
1927-28 . . .	6.17	1930-31 . . .	4.55
1928-29 . . .	5.80	1931-32 . . .	3.98
1929-30 . . .	5.66	1932-33 (7 months) .	3.82

This in itself is a factor that is not easy to counter without setting up dykes to keep the inundation off, coming in at accelerated pace. Our rupee stands tied to the rock of one shilling six pence. The currencies of both China and Japan lag behind sterling and we are faced with the spectacle of raw silk increasingly produced at desperately uneconomic costs, in currencies not pegged to sterling, coming in and flooding out local produce from its precarious foothold.

Whether the industry will be able to find its feet within a measurable distance of time and will then need further protection, it may be stated once for all that Statements A, B, and E, will show—

- (a) that the industry in Kashmir and Jammu is expanding,
- (b) that the cost of the production of cocoons is steadily dropping,
- (c) that the quantity produced from an ounce of seed reared is steadily growing, and
- (d) that the cost of reeling is steadily diminishing.

It stands to reason that with the pace set towards cheapening cost of production, time is not far distant when with expanding growth of industry and diminishing of overhead charges, the State would be able to put on the market its superior qualities of silk at a price which would be able to compete fairly and squarely with foreign imports.

The figures given in Statement G will indicate clearly that up to some time in the past Kashmir raw silk held its own in the European markets of London, Lyons and Milan and it cared little then to build up a clientele in India. This place in European markets is fast slipping away and the recent figures of exports abroad show that they are really *nil* while the market that is being captured in India is fast being undermined and ground is being lost in favour of Japanese and Chinese imports of raw silk. The local industry is threatened with extinction. It is because the State finances it that so far its collapse has been masked from uninstructed view. What its disappearance or decline will mean to the poor zamindar whose enforced leisure-time it occupies and fructifies and whose frugal economy it assists with an augmentation in income, that is daily being considered an assured asset, is not difficult to envisage in all its bearings. In this connection numerous petitions have poured in. We are forwarding a representative few. Besides the immediate monetary privation, there is the added calamity of the killing out by disuse, of the cunning of the finger and the artistic training of the eye which it has taken centuries to build up. We are refusing to harness, two of the most important factors, physical and demotic, to the building up of an industry for which its suitability has been amply established. Let not the epitaph on this industry again be that the remedial measures that were taken came too late. This is what the people said to Louis Phillipe after the July revolution “C'est trop tard”.

Then we have to consider against what economically insidious penetration we are urging for counter measures. When a country, so well organised industrially and politically, like England has felt the strain and has asked for counter measures, would India not be justified in claiming similar measure of protection? In the Committee stage of the debate on the Ottawa Agreements Bill, Mr. Levy said “Japan is dumping all textiles, but for the purposes of illustration I am going to confine myself to the silk industry,

This dumping is State-aided in so far as the Japanese Government are guaranteeing the exporters against bad debts. The procedure is that we in England employ people to prepare patterns, designs, and styles for the forthcoming season, and immediately these are realised away they go to Japan, they are copied there, and they are returned here in order to take the season's trade. The attack is three-fold. Firstly, there is the abnormality of the low cost of production; secondly, there is Government guarantee against bad debts; and, thirdly, there is the utilisation of ideas and designs".

Then it is well known that labour in China and Japan is both well-disciplined, docile, industrious and prepared to work, for the industrial glorification of their country, with a reckless selflessness that we are accustomed to associate with their conduct on the battle-field. As a matter of fact it is those very traits that helped Japan against Russia, that are now being mobilised to fight the industrial fight against India. In Japan they work two shifts of ten hours each, that is, 20 hours per day, six days per week, without half holiday on Saturday. Women work the second shift, that is the night shift at the same flat rate. Their wages work out at nearly five rupees per week of sixty hours. Where do we stand with our labour not attuned to work in the same war spirit and demanding wages, that being living wage, cannot come down to this figure? The industry in the past has held its own. It has tried to build up a local market and being carried on the tide of the genuine Swadeshi movement, it hopes to reach areas up to now not penetrated by the indigenous products. But unless dykes are set up sufficient to keep the floods out, there is every danger of the tiny rills being swamped out by the torrents pouring in from abroad.

As regards the repercussion that any increase in the price of raw silk as a result of the rise in the duty will have on the handloom weaver, it must be stated that provided effective protection is given for a certain space of time, there is every hope that with the increased economy in the cost of production, Kashmir raw silk will be on the market at a price which would be acceptable to local trader dealing in both ordinary as well as luxury articles in the silk line. So far as the handloom weavers of silk in Kashmir go, their figures have approximately been worked out by the Director of Industries to consist of 2,000 family units. The type of cloth that they are turning out is not different from the average silk cloth purchased in the rest of India. They are catering for the medium and cheap markets. They have in Kashmir fallen from the high pedestal when they turned out superior style articles only. Local inspection showed that it was predominantly spun silk imported from Italy and Japan that they were using. Trade figures indicate that in the year 1931-32 only three lacs rupees worth of silk of all kinds including spun silk was imported in bond from abroad as against fourteen thousand rupees worth of silk imported from British India. This shows the limited character of the silk weaving industry as conducted on handlooms at present in the Kashmir valley. The consumption of Kashmir made raw silk, however, in the local industry is speedily growing. The figures stand at 1,643, 3,399, 8,999, 9,615 pounds respectively for the Samvat Fasli years 1985-86, 1986-87, 1987-88 and 1988-89. But in the matter of production of plain silk cloth, it must be clearly indicated that people have found by experience that where cheap electric power is available, it pays more to have a small unit of power-worked factory with from 10 to 40 looms for weaving silk cloth in place of individually operated looms. This has been the experience of manufacturers of both Surat and Benares and of late handloom factories operated by hand as well as power have been set up in Srinagar. They are in a position to capture the market at present supplied by cheap silk stuff dumped down by China and Japan. The rise in the price of raw silk as a result of the increase of duty on foreign imports will not as such affect the handloom weaver. As it is, he requires to be protected against imports of cheap cloth. All that he would

demand would be that there should be a *pro tanto* rise in the duty on imports of silk cloth corresponding to a rise in the duty of raw silk. As a matter of fact with the prospect of increasing utilization of indigenously manufactured raw silk, the handloom weaver both in the artistic and the plain side, hopes to come into his own if he is afforded sufficient protection as against imports—cheaply manufactured with the help of sweated labour and paid for in depreciated currency. The Director of Industries was asked to prepare a note on the protection that is necessary to the handloom weaver. He is definitely of the opinion that silk stuffs coming in from abroad specially China and Japan manufactured as they are, from cheap raw silk material are ousting the local product of the plain variety practically from the market. He would urge that the duty on imports of finished products should be levied at least 35 per cent. higher than the proposed increase of duty on imports of raw silk. His note is summarised below:—

Spun silk cloth.

Average price of spun silk yarn of 140/2 per pound at Srinagar—

	Rs.	A.	P.
1. Sarwanand Raina	4	4	0
2. Indo-Kashmir Textile Company	4	8	0
3. Customs House	3	11	3

The Customs House price is invoice value and does not include handling and other charges. The first two figures give local market rates. Average of these figures comes to Rs. 4-6.

Outturn from a pound of this grade of spun silk as given by Messrs. Sarwanand Raina and Company, is:—

- (a) 9 yards of 27" wide.
- (b) 8 yards of 36" wide.
- (c) 7 yards of 45" wide.
- (d) 6 yards of 54" wide.

Messrs. Indo-Textile Company—

- (a) 7 yards of 42" wide.

Average outturn per pound 7½ yards.

The sale price which under competition is close to the cost price is calculable at Rs. 5-8 per pound of cloth. Thus:—

- (a) 27" wide cloth sells at As. 10 a yard.
- (b) 36" wide cloth sells at As. 11 a yard.
- (c) 42" wide cloth sells at As. 12-6 a yard.
- (d) 54" wide cloth sells at As. 15 a yard.

Average rate comes to As. 12-1½.

This quality of silk cloth competes against foreign imports of Fugi and Boski of much superior finish and texture.

- (1) A piece of 50 yards of Fugi sells at Rs. 28-11-6 or As. 9-2 a yard.
- (2) A 50 yard of Boski is available in local market for Rs. 34-3-3 or As. 10-9 a yard.
- (3) 50 yards piece of Boski No. 5000 costs Rs. 41 or As. 13 a yard.
- (4) 25 yards piece of another brand of Boski costs Rs. 17 or As. 10-10 a yard.
- (5) 50 yards piece of another brand costs Rs. 24 or As. 7-8 a yard.
- (6) 50 yards piece is available at Rs. 22 or As. 7-1 a yard.

Average rate As. 9-9 a yard.

Average sale price of spun silk cloth locally produced comes to As. 12-2 per yard and the average price of imported cloth of much superior finish and texture is As. 9-9 a yard. It is to be noted that As. 9-9 per yard is

the price inclusive of 50 per cent. duty on the silk piecegoods and to bring it up to the sale price of local manufacture As. 12-2 we must raise the tariff by over 25 per cent., that is, at least 35 per cent. to provide sufficient margin.

Kashmir raw silk piecegoods.

Rates per pound of various grades of Kashmir raw silk used by the local manufacturers are at present:—

Grade.	Lotus.	Iris.	Saffron.
22/D and above .	Rs. 7-8	Rs. 7-2	Rs. 6-12

These rates approximate more or less to the cost of production and when market appreciates, these rates will average at least Rs. 7-8 per pound. For the present we may take Rs. 7-2 as the average price per pound. This is not in any way high rate. The Mysore filature silk costs Rs. 8-12 per pound and Charkha silk Rs. 6-4 per pound.

Japanese raw silk which is much superior from point of reeling and which competes with Kashmir raw silk is selling at present at Rs. 6 per pound after paying 25 per cent. customs duty, and similarly Chinese silk at about Rs. 5 per pound, average being Rs. 5-8 per pound.

Assuming that the outturn from one pound of silk both of local and foreign origin is the same and the selling price of cloth is also the same, the difference of Re. 1-10 between the price of Kashmir raw silk and that of Chinese and Japanese raw silk, will be the ultimate difference in the price of silk piecegoods made from them. The Kashmir raw silk goods at present sell at average price of Rs. 2-1 per yard. The China and Japan can undersell Kashmir manufacture to the extent of 23 per cent.

The Director of Industries is definitely of opinion that the handloom weaver has nothing to fear from the rise on duty on imports of raw silk so long as he is protected. He has made out a case for the necessity of protection to the manufacturer of silk goods even if the present duty on raw silk is not raised. It stands to reason that with any rise in duty on raw silk the rise *pro tanto* in the duty of finished products must be inevitable.

Measure of Protection.

The Directors of Sericulture both of the factory at Srinagar and at Jammu have given facts and figures as per Statement E which would show that the cost of production of cocoons at present is not susceptible of being reduced below Rs. 27 per green maund. This translated into silk factor comes to Rs. 4-5-3 per lb. of raw silk outturned. The total average cost of reeled silk has been worked out at Rs. 6-10. So far as foreign imports go, first of all there is the question of their enigmatic valuation which it is not easy for one to understand and appears *prima facie* to be unduly low; and secondly there is the question of the low incidence of the present duty on raw silk valued at these low rates. What is necessary is that considering the price at which raw silk can be produced, the present duty of 25 per cent. requires to be quadrupled, that is to say, there is the necessity for the imposition of 75 per cent. additional duty on the existing pitch of 25 per cent. It is necessary to pitch duty at this figure, because every effort will be made both in China and Japan to circumvent the present increase by some other method familiar to them in their highly evolved policy of dumping down raw materials on to other defenceless countries. In this connection an additional safeguard is called for. The additional duty should be both *ad valorem* as well as specific, that is to say, the duty should be pitched at such a figure that calculated at specific duty rates or *ad valorem* duty rates, it will not allow foreign imports to compete unfairly with local produce. The system to follow would be that duty would be levied at *ad valorem* rates or specific rates whichever result in a higher degree of protection. As Javanese sugar has been kept out, so must Japanese and Chinese raw silk be kept away.

In this connection the arguments urged by Mr. Levy in the Committee stage of the debate on the Ottawa Agreements Bill are pertinent. "I

would ask why not apply the anti-dumping provisions and assess the duty, not on the invoice price, but on the British factory selling price for similar goods? Wherever our manufacturers go in the Dominions, they are up against this dumping". This question was presented in all its fullness to the Import Duties Advisory Committee. We have to follow some such method here. There is no desire to penalise silk yarn produced under normal conditions and of more or less superior type and carrying genuine cost of production. If the duty is made to vary with genuine cost of production of the raw material in the Indian market then we shall be able to keep back the dumped foreign article which is shouldering us out of our home market.

As regards measure of additional protection due on imports of silk goods, at least a duty of 75 per cent. be levied. If this is the duty that would be levied in addition to existing duty of 50 per cent. on imports of silk that would afford protection of 125 per cent. (75 plus 50) to the manufacturer of indigenous silk cloth and though the Director of Industries of Kashmir asks for a slightly higher protection there would be satisfaction if a protection of 125 per cent. is afforded to the manufacturer of silk goods in India. There is every hope that the industry manufacturing plain silk cloth is getting more and more organised. Its cost of production is being reduced and there is every expectation that it will be able to hold its own provided that during the transition period this tariff wall is built up. India will have to have some kind of measure of the type of anti-dumping provisions referred to above of the British Act (*vide* recommendation of the Fiscal Commission in paragraph 139). Having once decided the bed rock cost as fair cost of production in India, protection should be afforded which would slightly more than cover the difference between the Indian price and the invoice price of the foreign material, on the basis of which presumably the price in the schedule of tariff is calculated for purposes of assessing duty at the port.

It is, however, considered that it may be difficult to prove the ingredients that would justify the conclusion that silk (raw silk or silk goods), are being dumped into this country from China and Japan. In that case, the recommendation, clear and specific, is as follows:—

Increase the existing duty on imports of raw silk, so that it may become 100 per cent. *ad valorem*; and in order to avoid cooking of prices to serve as the basis for the imposition of *ad valorem* duties, a specific duty of Rs. 3-8 per lb. be prescribed with clear instructions that the higher of the two scales of duties should be levied for purposes of protection.

The existing duty on spun silk is 25 per cent. At present waste silk has to be exported abroad and is coming back as spun silk. The Sassoons and the Chhoi mills are not pulling their full weight. But we cannot meekly allow cheap spun silk to come in and oust the genuine article. We also want to develop spun silk industry in India. The State may consider the proposition of setting up a plant for turning out spun silk from waste silk. Protection, therefore, is necessary and the duty should be increased in the same way as the duty on raw silk by 75 per cent.

No separate suggestion has been made in the case of thrown silk, silk yarn, noils and warps, because it is presumed that they will be taxed along with raw silk coming in at the increased rate. These recommendations are not made purely with a selfish object of pushing on the silk industry of the State. The silk turned out in Kashmir under ideal conditions has characteristics of its own. Mr. Maxwell Lefroy in his report on Silk Industry in India has mentioned on page 50, volume I, "*that it would be to the mutual advantage of the Kashmir production and the Indian consumption if the Kashmir silk took the place of the imported silk and that a determined effort to this effect should be made*". This sums up the substance of the demand on behalf of the State.

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STATEMENT A.

Showing results of silk-worm rearing in the Province of Kashmir from the year 1897 to 1932.

Year.	No. of rearers employed.	Seeds issued in ounces.	Maundage of cocoons.	Produce per ounce of seed.	Amount paid to rearers (including carriage).
				Srs. Ch.	Ra.
1897-98	400	415	469	45 3	4,000
1898-99	1,452	1,968	1,250	25 6	11,500
1899-1900	2,871	19,384	not available.		57,800
1900-01	4,278	19,680	9,637	19 9	1,25,645
1901-02	5,887	26,292	12,681	19 4	Figures not available.
1902-03	8,158	26,292	22,000	33 7	
1903-04	11,066	26,292	16,325	21 0	
1904-05	11,362	23,928	13,142	17 12	
1905-06	12,139	26,675	22,351	33 8	
1906-07	14,427	27,544	21,409	31 0	
1907-08	17,433	28,221	28,421	40 0	
1908-09	18,949	27,954	23,490	33 8	
1909-10	26,234	32,060	36,428	45 0	
1910-11	35,034	34,156	40,407	47 0	
1911-12	41,552	34,251	37,565	43 0	5,61,212
1912-13	46,363	36,006½	37,487	41 0	
1913-14	47,501	36,735½	37,927½	41 0	
1914-15	48,936	36,738½	33,672½	36 8	
1915-16	51,076	37,610	33,862	36 0	
1916-17	40,523	37,936	33,951	35 12	
1917-18	42,912	38,650½	36,825-29½	38 2	
1918-19	44,994	40,939	35,240	34 7	
1919-20	41,366	36,150½	27,870	35 13	
1920-21	42,402	41,845½	31,868-30½	30 11	5,30,691
1921-22	42,241	40,165	24,466	24 6	4,02,266
1922-23	44,681	42,912½	31,884	29 1	6,31,426
1923-24	46,431	44,108½	34,948	31 11	5,79,457
1924-25	48,002	44,687½	20,914	18 11	3,43,886
1925-26	49,008	42,814	29,401	27 7	4,82,761
1926-27	42,689	46,629	26,522	22 13	4,36,855
Middle April, 1927, to Middle October, 1927.	43,700	44,311½	35,375	31 15	5,83,260
Middle October, 1927, to Middle October, 1928.	46,608	45,846	37,525	30 7	6,19,696
Middle October, 1928, to Middle October, 1929.	48,357	44,164½	33,762	30 9	5,50,798

STATEMENT A—contd.

Showing results of silk-worm rearing in the Province of Kashmir from the year 1897 to 1932—contd.

Year.	No. of rearers employed.	Seeds issued in ounces.	Maundage of cocoons.	Produce per ounce of seed.	Amount paid to rearers (including carriage).
Middle October, 1929, to Middle October, 1930.	49,234	47,538	35,254	Srs. Ch. 29 10	Rs. 5,90,509
Middle October, 1930, to Middle October, 1931.	38,672	39,794	29,150	29 4	5,41,252
Middle October, 1931, to Middle October, 1932.	30,836	24,291	25,201	41 8	Figures not ready.

Showing progress of Jammu Sericulture from year to year in Rearing Branch.

Year.	Amount of silk-worm seed distributed in ounces.	No. of villages brought under rearing.	No. of rearers recruited.	Amount of cocoons produced in maunds.	Average, outturn of cocoons per oz. of seed in seers and chks.	* Amount of money paid to zamindars in rupees.
April, 1908, to March, 1909 .	1,576	143	877	851	21 8	13,061
„ 1909, to „ 1910 .	1,501	157	875	1,235	32 8	19,040
„ 1910, to „ 1911 .	2,100	240	1,057	1,686	32 1	26,166
„ 1911, to „ 1912 .	2,399	289	1,463	1,412	23 8	21,975
„ 1912, to „ 1913 .	2,970	393	1,559	2,007	17 0	31,692
„ 1913, to „ 1914 .	3,963	574	2,798	2,316	23 0	39,163
„ 1914, to „ 1915 .	4,024	655	2,922	3,004	29 14	46,960
„ 1915, to „ 1916 .	4,055	648	3,252	2,861	28 3	44,678
„ 1916, to „ 1917 .	3,695	615	3,022	2,436	26 6	38,526
„ 1917, to „ 1918 .	4,192	675	3,224	2,994	28 9	47,307
„ 1918, to „ 1919 .	3,976	663	3,109	2,783	28 0	43,902
„ 1919, to „ 1920 .	4,495	799	3,347	1,812	16 2	29,744
„ 1920, to „ 1921 .	3,978	796	2,974	2,457	24 12	43,369
„ 1921, to „ 1922 .	3,913	788	2,693	859	8 12	15,666
„ 1922, to „ 1923 .	3,170	671	2,248	1,882	23 12	33,812
„ 1923, to „ 1924 .	3,187	693	2,279	3,197	27 9	33,950
„ 1924, to „ 1925 .	3,018	582	2,283	2,110	27 15	38,060
„ 1925, to „ 1926 .	3,044	563	2,418	2,216	29 2	40,164
„ 1926, to „ 1927 .	3,193	535	2,516	2,713	34 0	48,491
April, 1927, to September, 1927.	3,524	536	2,872	3,253	36 15	59,576
October, 1927, to September, 1928.	4,008	555	3,400	4,173	41 10	75,465
October, 1928, to September, 1929.	4,721	602	4,261	4,694	39 12	84,095
October, 1929, to September, 1930 .	5,512	692	5,138	6,609	48 0	1,19,893
October, 1930, to September, 1931.	7,004	889	7,295	7,524	42 14	1,53,043
October, 1931, to September, 1932.	7,598	848	7,467	7,964	41 14	1,59,339

* Figures in this column include Carriage and Lamberdari charges.

STATEMENT B.

Showing Reeling results of the Srinagar Silk Factory for the last 15 years.

Year.	Average daily attendance of labour.	OUTTURN IN POUNDS.	
		Raw silk.	Silk-wastes (including inferior silk).
1917-18	2,309	1,80,636	1,04,351
1918-19	2,500	1,99,810	1,52,628
1919-20	2,500	1,75,693	94,667
1920-21	2,578	1,76,998	94,202
1921-22	2,226	1,56,725	82,629
1922-23	2,047	1,80,373	74,960
1923-24	2,595	2,05,477	1,01,588
1924-25	2,263	1,08,120	63,381
1925-26	2,437	1,48,265	72,511
1926-27	2,243	1,57,089	83,733
Middle April, 1927, to Middle October, 1927.	2,158	1,03,429	49,988
Middle October, 1927, to Middle October, 1928.	2,357	1,80,068	74,443
Middle October, 1928, to Middle October, 1929.	2,679	2,02,009	88,739
Middle October, 1929, to Middle October, 1930.	2,103	1,95,922	82,545
Middle October, 1930, to Middle October, 1931.	1,707	1,67,532	77,547

Showing progress of Jammu Sericulture from year to year in Reeling Branch.

Year.	Total number of hands employed in the year.	OUTTURN.		Average outturn of silk per basin in ounces.	Amount of money paid to labour in rupees.
		Raw silk in pounds.	Silk-wastes in pounds.		
April, 1908, to March, 1909
„ 1909, to „ 1910	3,007	754	6 4	Figures not available.
„ 1910, to „ 1911	33,849	3,558	2,481	4 10	
„ 1911, to „ 1912	44,870	5,808	4,075	5 5	
„ 1912, to „ 1913	81,435	10,095	5,593	5 11	
„ 1913, to „ 1914	90,620	10,835	5,502	4 2	
„ 1914, to „ 1915	65,567	6,915	4,755	3 8	
„ 1915, to „ 1916	66,439	7,825	8,844	4 5	
„ 1916, to „ 1917	65,808	10,027	12,556	5 11	
„ 1917, to „ 1918	65,277	11,931	16,209	6 4	
„ 1918, to „ 1919	64,148	13,445	16,235	7 8	
„ 1919, to „ 1920	48,542	8,779	10,244	6 7	
„ 1920, to „ 1921	46,239	8,030	11,024	6 9	
„ 1921, to „ 1922	46,400	7,836	11,630		

STATEMENT B—contd.

Showing progress of Jammu Sericulture from year to year in Reeling Branch—contd.

Year.	Total number of hands employed in the year.	OUTTURN.		Average outturn of silk per basin in ounces.	Amount of money paid to labour in rupees.
		Raw Silk in pounds	Silk wastes in pounds.		
April, 1922, to March, 1923 .	34,403	7,520	10,162	7 14	10,887
„ 1923, to „ 1924 .	36,416	9,241	9,995	10 1	13,901
„ 1924, to „ 1925 .	33,316	8,610	8,525	10 15	13,578
„ 1925, to „ 1926 .	32,742	9,557	6,786	13 1	15,247
„ 1926, to „ 1927 .	39,507	11,654	11,135	12 9	19,918
„ 1927, to September, 1927	20,147	5,377	6,062	11 1	10,153
October, 1927, to September, 1928.	41,608	12,131	11,134	12 10	21,520
October, 1928, to September, 1929.	61,881	16,494	22,375	12 5	30,323
October, 1929, to September, 1930.	68,913	21,371	23,365	13 15	35,691
October, 1930, to September, 1931.	70,079	25,987	26,702	16 9	38,136
October, 1931, to September, 1932.	67,108	31,805	27,447	20 7	39,551

STATEMENT C.

Showing the number of Mulberry Plants raised and transplanted Departmentally in the Valley of Kashmir during the last 15 years.

Year.	No. of plants.	Year.	No. of plants.
1917-18 . . .	41,980	1925-26 . . .	42,143
1918-19 . . .	32,485	1926-27 . . .	50,721
1919-20 . . .	35,863	1927-28 . . .	45,506
1920-21 . . .	20,947	1928-29 . . .	44,198
1921-22 . . .	28,759	1929-30 . . .	41,265
1922-23 . . .	28,439	1930-31 . . .	46,750
1923-24 . . .	35,490	1931-32 . . .	40,700
1924-25 . . .	44,128		

STATEMENT C.

Showing the number of Mulberry Plants raised and transplanted Departmentally in Jammu Province during the last 5 years.

Year.	No. of plants.	Year.	No. of plants.
1928 . . .	3,465	1931 . . .	5,550
1929 . . .	4,931		
1930 . . .	6,035	1932 . . .	1,850

STATEMENT D.

Showing in rupees, Maintenance Charges of (A) Staff and (B) Mulberry Plantations, in the Province of Kashmir, during the last 5 years.

Year.	Staff.	Plantations.
1984-85 . . .	18,064	9,317
1985-86 . . .	17,502	10,381
1986-87 . . .	17,873	25,142
1987-88 . . .	32,015	32,316
1988-89 . . .	29,467	24,869

STATEMENT D.

Showing cost of Maintenance of Mulberry Culture Section of Jammu Sericulture Department for the last 4 years.

Year.	Expenditure incurred on account of payment to supervising staff.	Maintenance charges of nurseries and plantations excluding staff.	Total.
	Rs.	Rs.	Rs.
1928-29	8,235	1,114	9,349
1929-30	8,755	2,236	99,911
1930-31	9,074	1,497	10,571
1931-32	8,810	833	9,543

STATEMENT E.

Showing cost of Production of Cocoons and Raw silk in the Province of Kashmir for the last 5 years.

Year.	Cost of a maund of cocoons in rupees.	AVERAGE COST OF PRODUCING ONE POUND OF RAW SILK.		Total charges.
		Value of cocoons in rupees.	Manufacturing expenses in rupees.	
1926-27	27 3	4 8 3	3 3 9	7 12 0
1927-28	25 6	3 15 7	2 9 5	6 9 0
1928-29	23 8	3 10 6	2 9 0	6 3 6
1929-30	24 4	3 8 6	2 11 0	6 3 6
1930-31	*26 14	4 5 3	2 4 9	†6 10 0

* Due to increase in the rate of Cocoons.

† Details are as follows:—

	Rs. A. P.
1. Cost of cocoons	4 5 3
2. Cost of fuel, Electric charges and contingencies	0 6 7
3. Reeling, cleaning, water and baling charges	1 3 10
4. Supervision and other establishment charges	0 6 4
5. Miscellaneous charges including depreciation, Fire Insurance, Commission to Selling Agents, etc.	0 4 0
TOTAL	6 10 0

NOTE.—In these calculations interest on the capital invested in the business is not charged, nor has any charge been made for that part of mulberry leaf which is supplied from Government lands for feeding the Silk-worm with.

STATEMENT E.

Showing cost of Production in the Province of Jammu.

(A) PER MAUND OF COCOONS.

Year.	Amount of cocoons produced in Mds.	Price paid to Reared.	Rearing requisites and temporary technical supervision.	Price of silkworm seed.	Expenditure incurred on Mulberry planting.	Rewards for good results shown.	Contingencies and house-rent.	Half salary of gazetted staff.	Half establishment charges.	Half postage and tele-gram charges.	Fire Insurance.	Customs duty.	Sorting and baling charges.	Travelling allowance.	Stationery and Tents.	Depreciations charges.	Total.	Rs. As.
Oct., 1927, to Sept., 1928.	4,173	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31 4
Oct., 1928, to Sept., 1929.	4,694	86,394	3,633	13,780	1,114	3,401	577	5,007	17,195	489	1,086	2,426	3,293	4,744	100	1,656	1,44,855	30 14
Oct., 1929, to Sept., 1930.	6,009	1,19,389	4,099	18,070	1,236	5,075	1,070	6,169	16,560	455	1,100	2,690	4,270	6,564	1,045	1,659	1,80,751	28 11
Oct., 1930, to Sept., 1931.	7,524	1,52,541	4,690	18,888	1,497	6,442	808	6,214	17,001	566	797	3,410	3,707	6,118	100	2,000	2,25,379	29 15*
Oct., 1931, to Sept., 1932.	7,964	1,59,648	3,542	18,268	833	3,397	542	5,783	17,758	426	578	3,977	3,724	3,205	85	2,000	2,23,764	28 *

*Increase in price of cocoons.

(B) PER POUND OF RAW SILK.

Year.	Amount of silk reeled.	Mds.	Reeling and baling charges.	Fuel.	Commission to silk agents.	Establishment charges.	Half salary.	Half postage and tele-gram charges.	Fire Insurance.	Customs duty.	Stationery.	Depreciation charges of machinery and build-ings.	Contingencies and house-rent and travelling allowance.	Total.	Cost of silk per lb.	Add value of cocoons consumed per lb.	Total cost of production of silk per lb.
Oct., 1927, to Sept., 1928.	16,494	3,064	30,057	3,811	..	10,600	5,007	488	229	227	108	2,980	670	53,450	3 10	5 11	8 14 10
Oct., 1928, to Sept., 1929.	21,371	3,568	38,847	6,429	..	11,558	6,469	456	106	431	113	2,962	558	67,677	3 10	4 13	8 0 4
Oct., 1929, to Sept., 1930.	25,987	4,533	40,677	6,127	..	11,793	6,214	566	297	336	100	2,500	536	68,640	2 10	5 13	7 12 3
Oct., 1931, to Sept., 1932.	31,895	5,392	42,676	3,533	2,710	10,375	5,783	426	575	167	85	2,000	447	68,777	2 2	4 12	6 14 1

NOTE.—In these calculations interest on the capital invested in the business is not charged, nor has any charge been made for that part of mulberry leaf which is supplied from Government lands for feeding the Silk-worm with.

STATEMENT F.

Showing Block Value of Buildings and Machinery of Kashmir Sericulture as it stood on 1st Katik, 1985 (October, 1928).

Particulars.								Value in Rupees.
Buildings	.	.	.	.	.	.	.	5,05,594
Machinery	.	.	.	.	.	.	.	3,45,201
Boiler	.	.	.	.	.	.	.	2,28,246

STATEMENT F.

Showing Block Value of Buildings and Machinery of Jammu Sericulture as it stood on 1st Baisakh, 1971 (April, 1914).

Particulars.								Value in Rupees.
Buildings	.	.	.	.	.	.	.	1,36,192
Machinery	.	.	.	.	.	.	.	*5,519
Boiler	.	.	.	.	.	.	.	1,843

* Value of machinery has since considerably increased owing to fresh additions.



STATEMENT G.

Showing Sales of Raw Silk and Silk-wastes of Kashmir Province for the last 15 years.

Year.	FOREIGN.				INDIAN (INCLUDING LOCAL).				LOCAL.	
	Raw silk Nos. 1, 2 and 3.		Inferior silk and silk wastes.		Raw silk Nos. 1, 2 and 3.		Inferior silk and silk-wastes.		Raw silk Nos. 1 and 2.	
	Quantity in lbs.	Value in rupees.	Quantity in lbs.	Value in rupees.	Quantity in lbs.	Value in rupees.	Quantity in lbs.	Value in rupees.	Quantity in lbs.	Value in Rs.
1917-18	74,756	11,99,523	13,248	54,798	4,640	54,322	35,174	1,25,245	..	..
1918-19	52,698	9,96,622	38,792	2,12,873	11,016	1,91,042	61,968	2,00,770	..	..
1919-20	1,95,534	£218,145	1,27,920	£38,211½	62,664	8,52,910	5,210	35,757	..	..
1920-21	2,16,649	29,45,349	91,184	2,75,185	85,364	11,99,382	3,607	28,507	..	..
1921-22	85,836	15,24,360	67,142	1,11,075	1,06,000	16,72,432	3,644	25,658	..	..
1922-23	67,477	14,28,154	1,66,167	3,88,959	90,652	16,57,291	3,795	24,406	..	..
1923-24	1,13,214	25,44,465	1,85,595	4,01,760	69,966	14,92,561	9,383	78,286	..	..
1924-25	51,221	7,76,160	1,63,354	2,48,399	53,757	9,31,582	2,291	12,899	..	..
1925-26	1,14,804	15,24,443	57,321	1,71,988	57,686	8,94,674	7,011	10,977	..	..
1926-27	87,628	10,38,966	1,03,074	1,51,926	46,527	6,00,245	650	2,291	..	..
Middle April, 1927, to middle October, 1927.	76,496	8,26,273	79,809	95,843	34,972	4,03,479	702	2,346	..	..
Middle October, 1927, to middle October, 1928.	1,05,253	11,58,920	1,05,534	1,21,786	72,871	7,91,259	810	1,728	..	..
Middle October, 1928, to middle October, 1929.	1,15,797	£102,709	96,157	10,350	57,769	6,28,378	3,037	4,066	..	..
Middle October, 1929, to middle October, 1930.	34,949	£20,536	1,03,160	7,078	86,146	8,99,034	..	..	3,339	32,345
Middle October, 1930, to middle October, 1931.	54,676	£24,790	30,258	2,111	49,785	4,07,432	2,793	9,615	8,990	66,176
Middle October, 1931, to middle October, 1932.	..	..	..	..	Final figures not yet ready.	..	..	..	3,449	65,759

STATEMENT G.

Showing Sales of Jammu Sericulture year after year in India and in Foreign Countries.

Year.	EUROPEAN.						INDIAN.						
	QUANTITY AND VALUE OF GOODS SOLD.						QUANTITY AND VALUE OF GOODS SOLD.						
	Raw silk.		Silk-waste.		Cocoons.		Raw silk.		Silk-waste.		Cocoons.		
	Quan- tity in lbs.	Value in rupees.	Quan- tity in lbs.	Value in rupees.	Quan- tity in lbs.	Value in rupees.	Quan- tity in lbs.	Value in rupees.	Quan- tity in lbs.	Value in rupees.	Quan- tity in mds.	Value in rupees.	
April, 1908, to March, 1909	..	..	..	..	..	..	..	..	..	..	..	..
" 1909, to " 1910	..	3,868	..	..	240	15,805	19,673	2,357	15,902	3,256	3,564	..	19,446
" 1910, to " 1911	463	19,017	750	860	913	48,960	68,837	2,582	18,223	3,268	4,383	..	22,606
" 1911, to " 1912	2,550	5,967	880	820	451	20,284	27,071	291	1,714	5,278	9,980	..	26,606
" 1912, to " 1913	904	1,24,537	613	1,051	15	552	1,26,140	1,763	13,151	4,901	7,386	..	19,306
" 1913, to " 1914	15,349	34,122	2,710	2,469	21	530	37,121	1,764	5,038	42,263	3,056	..	25,332
" 1914, to " 1915	3,456	1,04,242	1,000	988	455	27,843	1,33,073	234	1,594	722	41,086	..	27,216
" 1915, to " 1916	10,416	1,51,099	7,433	23,453	173	15,743	1,90,255	41	529	825	51	..	42,680
" 1916, to " 1917	11,845	12,167	..	..	681	68,654	80,821	712	5,879	8,945	513	..	48,408
" 1917, to " 1918	750	46,199	12,900	44,905	171	23,265	1,14,289	37	321	8,500	173	..	3,878
" 1918, to " 1919	2,855	315,944	16,850	22,238	204	2,453	3,40,635	2,039	26,184	127	602	..	47,773
" 1919, to " 1920	29,267	31,909	16,850	27,101	37	722	59,822	772	12,399	2,200	7,550	..	18,362
" 1920, to " 1921	1,900	1,46,816	20,658	36,271	44	1,578	1,84,665	1,862	20,414	..	..	..	87,102
" 1921, to " 1922	8,550	..	12,359	..	210	..	1,77,928	285	5,103	102	584	..	28,262
" 1922, to " 1923	9,283	..	12,607	..	165	..	94,176	206	3,108	..	..	..	34,450
" 1923, to " 1924	2,700	..	5,698	..	627	..	73,797	7	74	74	332	..	42,663
" 1924, to " 1925	..	..	7,986	..	713	..	86,165	1,824	24,276	16	74	1	42,052
" 1925, to " 1926	600	..	..	..	..	..	..	..	..	..	15	36	34,386
" 1926, to " 1927	18,065	..	3,250	..	559	..	2,14,300	4,472	43,822	..	..	..	43,822
" 1927, to " 1928	6,995	..	9,450	..	52	..	88,491	2,108	20,276	..	..	..	20,276
" 1927, to " 1928	7,041	..	10,283	..	1,026	..	1,40,934	13,483	1,28,165	156	549	..	1,28,714
" 1928, to " 1929	1,357	..	6,250	..	1,221	..	93,249	13,496	1,32,284	2,052	2,577	5	1,35,206
" 1929, to " 1930	3,019	..	26,298	..	957	..	1,01,166	14,329	1,37,889	104	432	7	1,38,799
" 1930, to " 1931	3,810	..	21,940	..	1,759	..	73,005	11,368	82,824	237	787	..	83,611
" 1931, to " 1932	3,057	..	7,500	..	..	..	23,412	39,234	2,39,367	1,826	817	..	2,40,184

2) *Endorsement No. D. 92/33, dated the 12th January, 1933, from the Hon'ble the Resident in Kashmir.*

A copy of the undermentioned paper is forwarded to the Secretary, Tariff Board, Old Custom House, Bombay, for information, with reference to his letter No. 558, dated the 5th December, 1932.

Enclosure.

Copy of a letter from the Kashmir Government, to the Extra Assistant to the Resident in Kashmir, No. P. B. 2261, dated the 9th January, 1933.

TARIFF BOARD ENQUIRY REGARDING SERICULTURE INDUSTRY.

With reference to your letter No. D. 8027/32, dated the 20th December, 1932, I am directed to forward herewith a copy of the note (with five spare copies) by the Revenue Minister containing information required by the Secretary, Tariff Board, regarding sericulture industry in the State.

1. The table below gives complete information in regard to Jammu Province for the year 1931-32. As regards the Province of Kashmir, the figures called for are being compiled and will be sent up shortly.

SILK-WORM REARERS.		LABOUR ENGAGED DAILY IN SILK REELING.		MISCELLANEOUS LABOUR.		PERMANENT STAFF OF DIFFERENT BRANCHES.	
Number.	Average* earnings in rupees per head per annum.	Number.	Average earnings in rupees per head per annum.	Number.	Average earnings in rupees per head per annum.	Number.	Average earnings in rupees per head per annum.
7,467	20 8 0	248-6	175 2 10	913	15 2 8	96	353 2 10

* This figure is exclusive of the value of firewood which becomes available to rearers on account of silk-worm rearing.

Each of the hands mentioned in the above table represents a family unit of 4 or 5 members. The number of people benefited by the industry therefore amounts to nearly 40,000 in the Province of Jammu.

2. The Industry is a monopoly of the State from the production of Silk-worm Seed to the marketing of raw silk and its bye-products. The State exercises its control, industrially and commercially, through the Department of Sericulture, which is highly specialized and which combines all activities connected with the Industry, namely, Mulberry cultivation and administration of Mulberry Rules, production of silk-worm seed, rearing of silk-worms through zamindars, reeling of raw silk in Filatures and disposal of final products.

The management consists of a Director of Sericulture who is responsible for the working of the Department with regard to both production and sale.

The Director is assisted by three Deputies, one in charge of Sericulture in Jammu Province, one in charge of Reeling Branch in Kashmir Province and one in charge of Mulberry Culture and Rearing in Kashmir Province.

The Deputies in turn are assisted by Assistants, one in Jammu and 5 in Kashmir, with their respective subordinate staff.

All operations are entirely financed by the State. The figures of expenditure involved during the last 10 years are given below :—

Year.	Kashmir Province.*	Jammu Province.†	Total.
	Rs.	Rs.	Rs.
1922-23	15,53,869	1,10,980	16,64,849
1923-24	16,54,809	1,30,655	17,85,464
1924-25	13,86,842	1,35,711	15,22,553
1925-26	14,44,525	1,22,090	15,66,615
1926-27	15,58,444	1,51,395	17,09,839
April, 1927, to September, 1927 .	10,79,460	1,11,821	11,91,281
1927-28	14,94,997	1,94,724	16,89,721
1928-29	14,59,252	2,24,711	16,83,963
1929-30	13,91,868	2,69,548	16,61,416
1930-31	11,85,730	3,23,335	15,09,065

* Exclusive of expenditure on Mulberry Culture Branch for which please see Statement D of the Note on "Raw Silk Industry in the Provinces of Jammu and Kashmir."

† Exclusive of depreciation charges on Buildings and Machinery.

Sales are arranged in India as well as in Europe through recognized Agents appointed for the purpose. We have at present two Agencies for India and three for Europe. Of those in Europe the principal ones are in London and Milan.

In India the Agents merely negotiate sales for ready goods or silk to reel, according to terms acceptable to the Director, and the goods pass direct from the Department to the Customer through an approved Bank. But in case of European business goods have in the first instance to be consigned to the Agents for sale. The Agents have however to obtain previous approval of the Director to rates at which sales are possible.

3. The Silk-worm reared in the Provinces of Jammu and Kashmir is *Bombyx Mori*.

Both Foreign and Local Seeds have been in use. The foreign races cultivated are French and Italian Yellow, White Bagdad and Crosses between the Chinese Golden Yellow and European Yellow Monovoltine races.

The local seed is raised from the rearings of foreign seed; recently, however, the acclimatization of foreign races has been taken in hand.

4. The imported seeds, arriving in India in October/November, as well as those produced locally, are together put in hibernation at Batote (Jammu) and Gagribal (Srinagar) in buildings specially constructed for obtaining control over temperature and humidity, both of which have to be regulated strictly during winter for a period of at least three months, within specified ranges, with a view to securing success in subsequent operations.

In spring, at the time the Mulberry wakes up from its winter sleep, the Seed is removed from the Hibernation Houses and is carried, under proper precautions, as regards temperature and humidity, to various centres of distribution, where previously registered rearers collect to take over their share of seed.

Then follows the incubation of eggs, again within specified range of temperature. This operation is conducted largely by the rearers in their houses (jointly or individually) under departmental supervision; but a part of the seed reared is incubated departmentally, in which case, instead of seed, young worms are distributed amongst the rearers.

From hatching to harvesting, the silk-worm is kept indoors where it is fed by the rearers, four to five times a day, on fresh leaf gathered from trees of the same or the adjoining village. During this period the rearers receive instruction and guidance from the staff engaged by the Department for the purpose.

Finally when cocoons are harvested by the rearers these are brought to various centres of collection where they are taken over by the Department at the rates fixed for cocoons and carriage of these to the particular centre.

The killing and drying of the cocoons is done partly departmentally and partly by the rearers. In the former case the crop is delivered green, in the latter case, it is taken over dry.

As regards the cultivation of the Mulberry the Department of Sericulture maintains 16 Nurseries (6 in Kashmir and 10 in Jammu) in which the requisite number of seedlings is raised annually from seed of suitable local trees and the seedlings take on the average four years to grow to their full size, when they are distributed for transplantation in Government waste lands and village common lands and also in private fields of agriculturists. Thereafter the plants take 5 to 6 years to grow to the requisite full size to become fit for providing leaf for the Silk-worm. In this connection Statement "D" referred to above may kindly be seen.

5. The races of the silk-worm cultivated being annual we obtain only one crop in the year.

The subjoined table gives the yield of crop per ounce of seed for the last five years:—

Year.	Average yield in seers per ounce of seed.	
	Kashmir.	Jammu.
1927-28	30.4	41.6
1928-29	30.5	39.7
1929-30	29.6	48
1930-31	29.2	42.9
1931-32	41.5	41.9

6. The table below gives the desired information for the last five years:—

Year.	PROVINCE OF KASHMIR.				JAMMU.
	Cocoons set apart for production of seed (in Green Maunds).	Cocoons reeled (in Green Maunds).	Proportion of seed cocoons to cocoons reeled.	Quantity of seed produced in ounces.	Quantity of cocoons reeled (in Green Maunds.)
1927-28	298	28,221½	1 : 94.6	19,188	1,953
1928-29	248	31,501	1 : 127	21,136	3,064
1929-30	221	28,478½	11 : 28.8	18,302	3,568
1930-31	205	26,977½	1 : 131.6	17,881	4,533
1931-32	233	32,733	1 : 140.5	16,895	5,392

It may be mentioned in this connection that the Industry of Silk-worm Egg Production is confined to the Province of Kashmir.

The average cost of (a) cocoons, (b) silk-worm seed imported and (c) silk-worm seed produced locally, is given in the table below, for the last five years. In this connection attention is invited to Statement E of the

Note on the "Raw Silk Industry in the Provinces of Jammu and Kashmir" which has already been submitted to the Tariff Board.

Year.	COST OF PRODUCTION.				
	PER MAUND OF COCOONS IN RUPEES.		PER OUNCE OF IMPORTED SEED IN RUPEES.		PER OUNCE OF LOCAL SEED IN RUPEES.
	Kashmir.	Jammu.	Kashmir.	Jammu.	Kashmir.
1926-27 . . .	27 3	34 3 0	3 3 4	2 7 0	2 11 10
1927-28 . . .	25 6	31 4 0	2 10 0	2 8 10	2 11 6
1928-29 . . .	23 8	30 14 0	2 10 6	2 12 7	2 1 0
1929-30 . . .	24 4	28 11 0	2 15 11	2 15 9	2 4 7
1930-31 . . .	26 14	29 15 2	2 8 4	2 10 7	2 7 6

8. This does not arise as the State buys up all cocoons from the rearers.

9. In this connection attention is invited to Statement E of the Note on "Raw Silk Industry in the Provinces of Jammu and Kashmir" wherein the cost of production has been given in detail.

Reeling is done exclusively by machinery a part of which comprising 388 Basins, is the most modern from Italy. The reels worked by hand are 79 in the Province of Jammu the remaining 1,007 reels are power-driven.

10. In regard to figures of production of raw silk and silk-wastes attention is invited to Statement B of the above mentioned "Note". As for values realized attention is invited to Statement G of the aforesaid Note.

11. In this connection attention is invited to Statement G of the aforesaid Note.

Paragraph 4 (a).—It may be stated at once that the Kashmir raw silk has been hit very hard on the one hand by increased imports of raw silk from year to year and specially during the seven months of the year 1932-33. This injury is accentuated by the accelerated drop in the rates at which the imported article is being marketed for the last nearly two years. No industry can stand attack from front and behind, larger imports cheaper prices.

The resulting harm to Kashmir raw silk has manifested itself in four ways; namely, firstly in the disappearance of profit, business for about 18 months being largely conducted at rates which fall below cost of production; secondly, in rendering the off-take of goods booked over a year ago extremely slow and uncertain; thirdly, in the loss of orders of nearly 25,000 pounds of raw silk and fourthly, in making impossible fresh bookings of ready stocks at profit or even at the cost of production.

The booked goods not so far taken delivery of, amount to over one lac pounds and other raw silk reeled to date which is available for sale is a little over $1\frac{1}{4}$ lacs of pounds. Thus there are heavy accumulations of stocks and there is reason to believe that another part of the booked goods will not be taken delivery of, as dealers are finding it extremely difficult to re-sell goods except at a very heavy loss to themselves.

In these conditions it has become impossible to expand our operations, rather we have been forced to curtail them considerably and unless relief comes in the shape of a protective duty we are threatened with complete cessation of our operations. In the meanwhile State money has been locked up in the stocks that have accumulated. Unless circumstances change for the better to a considerable extent there is little prospect of effecting the sale of the stocks in hand even at cost price.

Paragraphs 4 (b) and 5.—The points raised herein have been dealt with in the note on the “Raw Silk Industry in the Provinces of Jammu and Kashmir” already forwarded to the Tariff Board.

Indian silk has a name for durability. Cloths made in centres like Benares or Surat or in southern parts of India of the nature of Benarasi Sarees and Dupattas, etc., have been handed on from generation to generation. There is the danger of cheap Japanese and Chinese stuff coming in and ultimately threatening the very high excellence of the articles for which India was famous and considerably undermining the durability, the texture and the gloss of these articles. The Tariff Board stands not only for maintenance of industries that are needed in the national economy, it also stands for maintenance of standards and it is in this direction that it would be a calamity in the domain of artistic textiles if through sheer cheapness brought about by dumping, Kashmir silk as manufactured in the present regime is beaten out of the market.

(3) *Endorsement No. D. 310/33, dated the 26th January, 1933, from the Resident in Kashmir.*

A copy of the undermentioned paper is forwarded to the Secretary, Tariff Board, Council Hall, Poona, for information in continuation of endorsement from this Residency No. D. 92/33, dated the 12th January, 1933.

Enclosure.

Copy of a letter from the Political Secretary, Jammu and Kashmir Government, to the Extra Assistant to the Resident in Kashmir, No. P. B. 2551, dated the 24th January 1933.

Subject:—TARIFF BOARD ENQUIRY REGARDING SERICULTURE INDUSTRY.

In continuation of this office letter No. P. B. 2261, dated the 9th January, 1933, I am directed to forward herewith a statement (with 5 spare copies) showing the number of people engaged in the Province of Kashmir in the raw silk industry and their average earnings.

सत्यमेव जयते

Statement showing the number of people engaged in the Province of Kashmir in the Raw Silk Industry and their average Earnings.

1 Year.	2 SILKWORM REARERS.		3 LABOUR ENGAGED DAILY BY SRINAGAR SILKFACTORY.		4 LABOUR ENGAGED DAILY FOR GRAINAGE i.e., SEED PRODUCTION.		5 LABOUR ENGAGED DAILY BY THE MULBERRY CULTURE BRANCH.		6 MISCELLANEOUS LABOUR.		7 PERMANENT STAFF OF DIFFERENT BRANCHES.	
	Number.	Average earnings in rupees per head per annum.	Number.	Average earnings in rupees per head per annum.	Number.	Average earnings in rupees per head per annum.	Number.	Average earnings in rupees per head per annum.	Number.	Average earnings in rupees per head per annum.	Number.	Average earnings in rupees per head per annum.
1929-30	49,234	Rs. A. P. 12 2 3	2,032	Rs. A. P. 138 12 0	40	Rs. A. P. 87 8 1	70	Rs. A. P. 130 12 8	119	Rs. A. P. 73 5 2	440	Rs. A. P. 380 12 10
1931-32	31,247	15 8 1	1,794	131 15 8	38	85 4 6	62	136 14 0	107	88 14 8	348	397 7 11

(4) Letter No. 175/Sr., dated the 31st January, 1933, from His Highness' Government, Jammu and Kashmir, Jammu.

With reference to your telegram No. 64, dated the 24th January, 1933, and my telegram No. 164/Sr., dated the 25th January, 1933, I have the honour to forward herewith seven copies of our replies to the questionnaire issued by the Tariff Board.

2. His Highness' Government have nominated Mr. H. K. Lal, Director of Sericulture, Jammu and Kashmir, and Mr. T. C. Wazir, Deputy Director of Sericulture, Jammu, and Kashmir representatives to give oral evidence before the Tariff Board on 13th February, 1933, at New Delhi.

The history of Kashmir Sericulture has been dealt with exhaustively in Mr. Rawley's book on Economics of Silk Industry at pages 21, 22 and 30 to 45, which may please be referred to.

Silk-worm Rearing in the Province of Kashmir is being carried on, at present, in the Valley, in Tehsils Anantnagh, Kulgam, Awantipura, Sri Pratapsinghpura, Khas, Baramulla, Uttarmachhipura and Uri. The Industry of Silk Reeling in the Province of Kashmir is confined to Srinagar, where also the subsidiary Industry of Seed Production is being conducted.

In the Province of Jammu Silk-worm Rearing was begun in Tehsil Bhimber (Nowshera) in the year 1905; since when it has been gradually extended to cover practically the whole of the Province, comprising Tehsils Jammu, Ranbirsinghpura, Akhnur, Udhampur, Basohli, Kathua, Hiranagar, Ramnagar, Ramban, Kishtwar, Riasi, Rajouri, Bhimbar, Mirpur, Kotli and Bhadarwah.

The Industry of Reeling in the Province of Jammu is localised at Jammu Proper where it was begun experimentally in the year 1908.

The Silk-worm Rearers number 49,234 in the Province of Kashmir and 7,467 in the Province of Jammu, neither of whom is entirely dependent on Silk-worm Rearing, which is practised by them as an occupation supplementary to agriculture.

As for Reeling, the members entirely and partly dependent upon the Industry are 1,794 and 107 and 249 and 4 respectively in the Provinces of Kashmir and Jammu, details whereof have already been furnished in statements forwarded under letters Nos. 132/Sr. and 130/Sr., dated the 4th January 1933 and 20th January, 1933, respectively.

Other hands dependent on the Sericulture Industry are those engaged in Mulberry Culture and Seed Production, who number 100 in Kashmir Province. In Jammu Province there are 909 other persons who are partly dependent on Silk-worm Rearing and Mulberry work.

The above figures do not include the permanent Staff.

2. Reply to this question is contained in letter No. 132/Sr., dated the 4th January, 1933, under point 2, which may please be referred to.

3. The quantity and value of cocoons and raw silk produced in each of the last 5 years is given in the subjoined table for both the Provinces of Jammu and Kashmir:—

Year.	OUTTURN OF COCOONS.		OUTTURN OF SILK.	
	Quantity in green maunds.	Value in Rupees.	Quantity in lbs.	Value in Rupees.
<i>Kashmir.</i>				
1926-27 . . .	26,522	7,20,921	1,57,089	12,16,513
1927-28 . . .	37,525	9,52,116	1,80,068	11,80,436
1928-29 . . .	33,762	7,93,597	2,02,009	12,58,416
1929-30 . . .	35,254	8,55,524	1,95,922	12,17,684
1930-31 . . .	29,150	7,83,343	1,67,532	11,08,964
1931-32 . . .	25,201	Figures under compilation.	1,98,485	Figures under compilation.

Year.	OUTTURN OF COCOONS.		OUTTURN OF SILK,	
	Quantity in lbs.	Value in Rupees.	Quantity in lbs.	Value in Rupees.
<i>Jammu.</i>				
1927-28 . . .	4,173	1,30,406	12,131	1,13,392
1928-29 . . .	4,694	1,44,927	16,494	1,47,243
1929-30 . . .	6,609	1,89,596	21,371	1,71,413
1930-31 . . .	7,524	2,25,250	25,987	2,01,805
1931-32 . . .	7,964	2,23,987	31,805	2,19,694

If adequate protection were to be granted to the Sericulture Industry in Kashmir from the unfair competition of the Far Eastern Countries, it is estimated that *under the present organisation, which is Monopoly*, production of cocoons and raw silk can in course of the next 20 years be raised as per detail below :—

—	COCOONS.		RAW SILK.	
	PRESENT.	POSSIBLE.	PRESENT.	POSSIBLE.
	Green maunds.	Green maunds.	Lbs.	Lbs.
Kashmir . . .	25,000	5,00,000	2,00,000	10,00,000
Jammu . . .	7,500	45,000	32,000	2,50,000

The question of expansion is dependent on the price one can afford to pay for the cocoons and this on its part depends on the price one is likely to get for raw silk. Once we are in a position to command a good market at home we can reduce the unit cost of production by spreading the overhead charges over a very large annual outturn both in cocoons and raw silk.

The Department of Mulberry Culture has been trying as from the year 1926 to replenish and increase the stock of trees. The working policy in this connection has all along been to issue young plants from Departmental Nurseries, *free of charge*, leaving it to the zamindars to attend to the after care of such plants, without any remuneration. But as from the year 1928-29 the said policy has undergone a change, in that payments are being made to the zamindars for the labour involved for the upkeep of the plant for 3 years from the date of transplantation. The said change in the policy has wrought a remarkable change in the outlook of the zamindar in regard to the mulberry, because judging by the actual results obtained within the last few years we find that, whereas the earlier efforts in this direction failed to build up the stock of trees to any appreciable extent, the present day policy has helped during the last 5 years, when 218,419 trees were planted, to secure 75 per cent. success, which is highly satisfactory. Not only so, but reliable reports have come in that zamindars are very keen on planting a good deal more than is being issued annually from the Government Nurseries under the present programme. We are organised at present to issue 50 to 60 thousand plants per annum from our Nurseries, but if we had the certainty of fruitful results which protection would bring, then we are in a position to increase the production of plants for transplantation to 2 to 3 lacs per annum. Assuming however that we transplanted annually only 2 lacs of young trees, then in the

course of 20 years we shall have enough stock of mulberry trees to support worm population of 2 lacs of ounces of silk-worm eggs. In the same manner leaf can be increased in the Province of Jammu to support worm population of 45,000 ounces against the present 7,500 ounces. In short in the matter of maintenance of optimum stock of mulberry leaf the *laissez faire* policy of leaving zamindars to rear the plant on his own initiative has been replaced by an active policy of mulberry plantation and the State spends a considerable sum of money for the transplantation from Nurseries of plantlings and their after care. It is certain now that with apathy towards mulberry culture being a thing of the past food for worms will be available on a rising scale.

The other important factors namely labour and house accommodation necessary for obtaining the aforesaid results are available in abundance.

As for labour necessary for producing the aforesaid quantity of 1,250,000 lbs. of raw silk, we anticipate no difficulty as our plan of future development will be to tap the enormous labour resources of the Moffusil, by spreading the Filatures all over the country, to areas possessing more favourable economic advantages than are available in the Towns of Srinagar and Jammu.

4. The figures given below against some of the typical varieties of cocoons stand for the quantity of live cocoons required to produce a pound of raw silk. It is not within our knowledge that any Filatures in India have closed down for want of an adequate supply of Indian Cocoons.

White Chinese	9-33
Yellow Chinese	9-12
Golden Yellow	9-17
<i>Cevennes</i>	11-10
<i>Pyrennes</i>	9-63
<i>Var</i>	9-82
<i>Akabiki</i>	13-11
<i>Brianza</i>	9-93
<i>Fossombroni</i>	10-25
<i>Abruzzo</i>	8-51
<i>Gransasso</i>	9-35
<i>Majella</i>	10-23

5. The kinds of silk-worms reared are usually those mentioned in the table given in connection with question 6 (b).

Eggs of the silk-worms are laid in Kashmir in the months of June and July. These are conserved and reared in the manner already described in detail in this office No. 132/Sr., dated the 4th January, 1933, under point 4.

6. (a) In Kashmir and Jammu the houses generally utilized for rearing purposes are, as in the case of French, Italian, Greek and Jugoslavian Rearings, the ordinary dwelling houses of the zamindars, which serve the purpose well. The dwelling houses in Kashmir are usually two-storied with sloping roofs. Those in the Province of Jammu are generally single storied and flat-roofed. The cost of constructing these houses averages Rs. 150 in Kashmir and Rs. 115 in Jammu.

As for equipment necessary for the rearing of the silk-worm in the State necessary disinfectants and vermicides are supplied free by the Department.

The zamindar finds, without any special expenditure to himself, trays for spreading out the seed for incubation and wooden posts for making shelves and trays. It may be mentioned here in this connection that "Silk-worm Rearing depends chiefly on manual labour with little chance for application of machinery" (Honda's Silk Industry of Japan).

The most important improvement which can be introduced in the present method of construction of the dwelling houses is the provision of windows for increasing aeration in the rearing rooms. Regarding equipment the improvement called for is in the direction of increased use of *machans* super-imposed one above the other.

(b) The data asked for is given below in regard to the races which are usually reared here:—

Variety.	No. of days of education (elevation).	No. of cocoons per Kilo-gramme.	Length of filament in meters.	Denier.
<i>Cevennes</i> (France) . . .	35	536	750	2.36
<i>Pyrenees</i> (France) . . .	35	520	750	2.46
<i>Var</i> (France)	36	525	720	2.25
<i>Brienza</i> (Italy)	34	492	899	3.16
<i>Maiella</i> (Italy)	33	532	900	2.65
<i>Ascoli</i> (Italy)	34	480	718	2.41
<i>Gran Sasso</i> (Italy)	37	338	1,000	3.00/2.34
<i>Abruzzo</i> (Italy)	34	430	1,000	2.40
Bagdad white	42	380	770	2.87
Chinese white	32	855	530	2.25
Chinese (Golden yellow) . .	31	612	722	2.64
Chinese cross (yellow) . . .	33	602	743	2.57

7. Comparing our methods of Silk-worm Rearing with those practised in France and Italy (the two leading Sericultural Countries of Europe) we find that we are backward in respect of:—

- (A) incubation of silk-worm eggs, which is more scientific in Europe,
- (B) regulation of temperature and air of the rearing rooms. The rearers in Europe maintain better control over these factors than do the rearers here,
- (C) the observance of general hygienic conditions in the rearing rooms.

8. Worms are reared both from local and imported seed.

The production of seed is organised separately from the production of Cocoons. In the first place the seed employed is of superior quality. In the second place incubation of the seed is done entirely on scientific lines by the Department itself. In the third place the area for rearings of Reproduction is a selected one. In the fourth place every rearing house in the said area is thoroughly disinfected departmentally, by staff trained for the purpose, with sulphur and copper sulphate. In the fifth place unlike other areas, every house rearing for Seed Production is inspected once a day by trained staff to keep in touch with the progress of rearing.

Out of the cocoons thus raised the Seed Production Branch retains the healthy ones for producing seed. The doubtful and the defective ones are sent over to the Factory for purposes of reeling.

The cocoons retained for Seed Production are dealt with on modern lines and each mother moth is microscopically examined for purposes of rejecting seed tainted with Pebrine infection. In this manner only healthy seed is kept for use during the ensuing year.

9. The worms reared in the Provinces of Jammu and Kashmir are exclusively univoltine.

The quantity of seed hatched from year to year as well as of crop obtained in the Provinces of Jammu and Kashmir separately are detailed in Statement A appended to the confidential note on "Raw Silk Industry in the Provinces of Jammu and Kashmir", which may please be referred to.

10. The silk-worm in the Provinces of Jammu and Kashmir is fed on the leaf of the mulberry tree. The majority of these trees have come to us as heritage of the past. Nowhere do these trees occupy any portion of land to the exclusion of other cultures or pasturage. They grow everywhere scattered in cultivated fields, in the beds of ravines, along the bank of streams and rivers and on hill sides. New plantations of the mulberry which are being made departmentally with the co-operation of the zamindars concerned are generally established along canal enbankments, village roadsides but more particularly in blocks on village common lands.

The mulberry in the Provinces of Jammu and Kashmir is protected by a set of rules, whereunder the leaf thereof is earmarked for the silk-worm. Every person undertaking rearing can, by right, gather, free of charge, as much leaf as he needs for his silk-worms from trees owned either by the Government or by private persons, the only condition being that he does not remove from private lands leaf that is needed for a similar purpose by the owners of those lands.

Thus it will appear that in the peculiar conditions obtaining here it is not practicable to give information on all points raised in the questionnaire. The yield of leaf per tree, however, is about 80 lbs. in Kashmir and about 100 lbs. in Jammu Province, the average life of the tree in both the Provinces being about 100 years. The total quantity of leaf required for rearing one ounce of Silk-worm Seed is roughly 2,000 lbs.

11. In the peculiar conditions obtaining here as explained hereinbefore under question No. 10, it is not practicable to reply to this question.

12. In our Nurseries the best modern methods of selection and grafting are being carried out under the guidance of a French Expert, with a view to improve the quality of leaf.

13. It is not easy to isolate a particular factor that is inhibitive to the production of cocoons by silk-worms. Roughly, however, 20 to 30 per cent. may be taken as an average figure.

14. The diseases our silk-worms are liable to are:—

- (A) Pebrine.
- (B) Muscardine.
- (C) Flacherie.
- (D) Grasserie.

The first two diseases are "parasitic diseases" and the last two are "rot diseases" as described by Dr. Jameson—in his "Report on the diseases of silk-worms in India" (1922). Pebrine is a contagious and hereditary disease caused by an organism called "Nosema Bombycis". No cure is known. The measures taken against it are preventive ones, the most important of which consists of Microscopical Examination of the Mother Moth which, if found tainted with disease, is destroyed along with its laying of eggs. In this manner all diseased eggs are eliminated and only the healthy ones are retained for the purpose of rearing.

Muscardine is caused by an organism called *Botrytis Bassiana*. This disease is highly contagious but not hereditary. The contagion is carried by spores which have to be destroyed by sulphur fumigation.

As for Flacherie and Grasserie, they "are somewhat obscure in their origin". Flacherie is said to be caused by microscopic organisms called "Ferments and Vibrios". The attack of Flacherie is usually sudden, and is favoured by high temperature and high humidity. The precautionary measures necessary against the disease are promotion of ventilation of the rearing rooms and spacing of the cocoons, as also avoidance of the use of coarse and wet leaf.

Grasserie is an accidental disease caused generally by unsuitable food and favoured by faulty ventilation. It is not as a rule serious. General care in management of the silk-worms is necessary to prevent an outbreak of this disease.

15. Yes—I agree. The climatic conditions of the area with which we are concerned are certainly ideal for the development of Sericulture, specially in the Province of Kashmir and in the greater part of the Province of Jammu.

16. Reference is invited to Statement A appended to the confidential note on "Raw Silk Industry in the Provinces of Jammu and Kashmir".

17. (a) The data called for is given in the statement below:—

Years.	Total works expenditure on production of cocoons.	
	Kashmir.	Jammu.
	Rs.	Rs.
1926-27	7,20,921	...
1927-28	9,52,116	1,30,550
1928-29	7,93,597	1,44,855
1929-30	8,55,524	1,89,751
1930-31	7,83,343	2,25,379
1931-32	6,76,275	2,23,764

(b) The figures of cost of production are given in Statement E of the confidential note on "Raw Silk Industry in the Provinces of Jammu and Kashmir", of December last.

18. Information on the first part of the question has already been given under No. 132/Sr., dated the 4th January, 1933, but it is repeated below for facility of reference:—

Year.	Cocoons set apart for production of seeds (in Green maunds).	Cocoons reeled (in Green maunds.)	Proportion of seed cocoons to cocoons reeled.
1927-28	298	28,221½	1 : 94·6
1928-29	248	31,501	1 : 127
1929-30	221	28,478½	1 : 128·8
1930-31	205	26,977½	1 : 131·6
1931-32	233	32,733	1 : 140·5

The average value of each is given below:—

Year.	Average value of	
	Cocoons for reeling.	Cocoons for production of seed.
	Rs. A. P.	Rs. A. P.
1929-30	24 2 2	29 11 9
1930-31	26 12 1	30 13 3

19. This question does not arise as the State buys up all the cocoons from the rearers.

20. The whole of the silk produced is filature reeled, as explained already in reply to question 9 of the questionnaire received from the Secretary, Tariff Board, under his letter No. 558, dated the 5th December, 1932.

A full description, duly illustrated, of the machinery employed and of the process of reeling on lines required by the Tariff Board from Mr. Wazir at Poona, will be supplied by Mr. Wazir personally.

21. The data called for is given below:—

Year.	TOTAL QUANTITY PRODUCED.		AVERAGE PRICE REALISED.		Quantity of dry cocoons produce a pound of silk.	Proportion of silk waste to a pound of raw silk.
	Raw-silk.	Silk-wastes.	Raw silk.	Silk-wastes.		
<i>Kashmir.</i>	Lbs.	Lbs.	Rs. A. P.	Rs. A. P.	Lbs. oz. dr.	
1926-27 . .	157,089	83,733	12 3 3	2 9 1	4 7 12	.53.
1927-28 . .	180,068	74,443	12 10 4	1 6 10½	3 13 1	.41
1928-29 . .	202,009	88,739	11 12 10	1 9 0	3 13 7	.43
1929-30 . .	195,922	82,545	9 11 8	1 1 3	3 14 11	.42
1930-31 . .	167,532	77,547	7 0 10	0 9 5	3 14 8	.46
1931-32 . .	198,485	98,026	6 11 6	0 10 3	4 1 2	.49
<i>Jammu.</i>						
The foregoing data pertains to silk reeled in Filatures.						
1927-28 . .	12,131	6,730	9 6 6	1 9 1	4 8 0	.55
1928-29 . .	16,494	12,001	9 10 3	1 13 11	5 2 0	.72
1929-30 . .	21,371	13,966	9 2 0	1 9 0	4 9 0	.65
1930-31 . .	25,987	15,508	6 15 6	0 15 5	4 11 0	.59
1931-32 . .	31,805	15,510	5 15 5	0 11. 7	4 8 0	.48

22. This question does not concern us.

23. (a) The total works expenditure on Reeling as desired is given below:—

	Kashmir.	Jammu.
	Rs.	Rs.
1926-27	12,16,513	...
1927-28	11,80,436	...
1928-29	12,58,416	53,459
1929-30	12,17,634	67,977
1930-31	11,08,964	68,646
1931-32 . . . . .	...	68,777

(b) Reference is invited to Statement G appended to the confidential note on "Raw Silk Industry in the Provinces of Jammu and Kashmir" forwarded in December last.

The additional charge debitable to raw silk on account of interest on the capital invested in the business and for that part of mulberry leaf which

is supplied from Government lands for feeding the silk-worm with, works out as follows:—

Year.	Additional charges per lb. of raw silk on account of	
	Interest on capital.	Leaf supplied from Government lands.
	Rs. A. P.	As.
1927-28	0 14 5	8
1928-29	0 12 11	8
1929-30	0 14 11	8
1930-31	1 4 3	8
1931-32	1 1 9	8

Against this additional charge, however, the value of bye-products has to be set-off against the cost of production indicated in Statement E of the Note on "Raw Silk Industry in the Provinces of Jammu and Kashmir" sent in December last.

The deduction on this account in the cost per pound of raw silk works out as follows:—

Year.	Kashmir.	Jammu.
	As. P.	Rs. A. P.
1927-28	13 3	...
1928-29	15 6	1 10 8
1929-30	11 0	1 2 4
1930-31	8 6	0 11 10
1931-32 . . . . .	...	0 9 8

The net cost of production in rupees per pound of raw silk, therefore, works out as below:—

Year.	Cost as given in Statement E of the Note.	Add interest on capital.	Add value of leaf supplied from Government lands.	Total.	Deduct value of bye-products.	Net cost per pound.
<i>Kashmir.</i>	Rs. A. P.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1927-28	6 9 0	0 14 5	8	7 15 5	0 13 3	7 2 2
1928-29	6 3 6	0 12 11	8	7 8 5	0 15 6	6 8 11
1929-30	6 3 6	0 14 11	8	7 10 5	0 11 0	6 15 5
1930-31	6 10 0	1 4 3	8	8 6 3	0 8 6	7 13 9
<i>Jammu.</i>						
1928-29	8 14 10	0 12 11	8	10 3 9	1 10 8	8 9 1
1929-30	8 0 4	0 14 11	8	9 7 3	1 2 4	8 4 11
1930-31	7 12 3	1 4 3	8	9 8 6	0 11 10	8 12 8
1931-32	6 14 7	1 1 9	8	8 8 4	0 9 8	7 14 8

24. We are not in possession of up-to-date data pertaining to foreign countries (more particularly China and Japan) to be able to adjudge in which respects and to what extent filature work in Kashmir is at a disadvantage as compared to filature work in China and Japan.

25. The actual output of our Filatures of Raw Silk and Silk-wastes is as per figures given in reply to question No. 21, but this can be increased to 400,000 and 40,000 lbs. of raw silk in case of Kashmir and Jammu Factory respectively by working full number of hours and utilizing our present machinery to its maximum capacity. The output of Jammu Factory can easily be doubled as soon as we are in a position to work another Filature of 96 basins which is ready with machinery of local manufacture duly installed but the working of which has had to be suspended on account of adverse market conditions.

26. A Filature of 100 basins constitutes a convenient unit for securing efficient production. If, however, one can work up to 200 basins results would be certainly better.

A Filature of 200 basins equipped with modern machinery will need approximately capital of Rs. 3,50,000 to establish it.

27. Yes. In France and Italy where Filatures are owned by private persons and worked with profit, their sizes in respect of those constructed in previous years vary between 60 and 90 basins. Filatures constructed in recent years, however, contain at least 96 basins.

	1926-27.		1931-32.	
	Kashmir.	Jammu.	Kashmir.	Jammu.
Number of silk-worm rearers	42,689	2,516	31,247	7,467
Labour engaged daily in the Factory	2,243	148	1,794	249
Labour engaged daily for grainage, i.e., seed Production.	25	..	38	..
Labour engaged daily by the Mulberry culture Branch.	40	15	62	31
Miscellaneous Labour . . . . .	..	613	107	882
Permanent Staff	501	89	348	96

29. The total strength of the labour employed in our filatures is 1905 and 249 in case of Kashmir and Jammu Factory respectively.

This consists largely of the following classes:—

	Kashmir.	Jammu.
(A) Reelers	860	90
(B) Cooks	400	46
(C) Knotters	210	7
(D) Muraniwalas	58	1
(E) Silk-waste Cleaners	149	Included in (B).
(F) Sorters	160	21
(G) Turners . . . . .	...	77

Labour for each of the above classes has to be skilled, the degree of skill varying with the class of work, the most skilled being class (A) in case of both the Factories and the least skilled being class (B) in case of Kashmir and class (G) in case of Jammu Factory. Besides these there are 38 hands of semi-skilled labour in Kashmir.

As labour keeps passing in and out, therefore if and when vacancies have to be filled up, there is no difficulty in securing skilled hands.

The time necessary for acquiring skill for work of class (A) is 12 months, for work of class (B) 3 months and for work of class (G) two weeks.

30. (I) (c) The rates of wages paid to reelers are given below :—

Kashmir.

8 Skeins Reelers	Re. 1 a day.
5 Skeins Reelers	As. 10 a day.

Jammu.

	Regular.	Irregular.
	Rs. A.	Rs. A.
Reelers, 8 Skeins	1 2	1 0
Reelers, 7 Skeins	1 0	0 14
Reelers, 6 Skeins	0 13	0 11

(II) This is a matter of opinion, but it may be said that our labour here is decidedly not as efficient as the labour in advanced Sericultural Countries. The difference in the relative efficiency of labour would be perhaps 25 to 30 per cent. on the side of defect. This difference manifests itself in the quality and yield of raw silk.

(III) (a) & (c) Approved apprentices for all classes of Factory work including reeling, knotting, cooking, etc., receive training from old hands skilled in their job, working off and on as their seconds.

(b) Those interested in rearing acquire the necessary skill by observation and experience gained by working jointly with skilled hands of the same or neighbouring family units. These units receive guidance and new technique from the trained hands who supervise rearing on behalf of the Department.

31. The figures are as follows :—

	Kashmir Sericulture.	Jamu Sericulture.
(a) Leases and concessions	<i>Nil.</i>	<i>Nil.</i>
(b) Lands	These were acquired free from time to time. But if valued according to the present market rate, they are worth about Rs. 1,00,000.	These were acquired free from time to time. But if valued according to the present market rate they are worth about Rs. 30,000.
(c) Buildings	Rs. 4,38,451	Rs. 87,966.
(d) Plant and Machinery .	Rs. 4,20,462.	Rs. 12,688.
(e) Other assets	Exact information not compiled so far, the industry being a Government concern.	Exact information not compiled so far, the industry being a Government concern.

32. The present day cost under the Heads (1) Buildings and (2) Plant and Machinery for erecting a Factory having the same capacity as our Kashmir Factory is estimated to be Rs. 6,40,000 and Rs. 60,000 respectively.

33.

Year.		Rate of depreciation.	Amount written off.	
			Kashmir.	Jammu.
		Per cent.	Rs.	Rs.
1927-28	{ Buildings	5	26,333	3,983
	{ Plant and Machinery	10	58,611	616
1928-29	{ Buildings	5	25,280	2,851
	{ Plant and Machinery	10	57,345	555
1929-30	{ Buildings	5	24,357	3,760
	{ Plant and Machinery	10	51,610	498
1930-31	{ Buildings	5	23,693	3,694
	{ Plant and Machinery	10	46,449	452
1931-32	{ Buildings	5	22,963	4,000
	{ Plant and Machinery	10	45,490	1,407
TOTAL		..	3,82,131	21,816

No reserve fund has so far been constituted as the industry is a State monopoly.

34. The working capital considered to be necessary for a Factory of the size of Kashmir Factory is estimated to be about Rs. 13,00,000. The working capital is obtained from the Government free of interest.

35 & 36. As neither spinning of waste silk nor re-reeling nor throwing of raw silk is conducted by us therefore these questions do not concern us.

37. Kashmir Raw Silk is utilized in India in the manufacture of Crepe, Georgette, Brocades, Benarsi Sarees, Dopattas, Gold Thread and for Embroidery. It is also used as warp for the manufacture of other cloths.

38. In the absence of any reliable statistical information in this connection it is difficult to give an estimate of the total Indian demand and the total Indian production of raw silk.

From an enquiry made in different parts of the country in 1928 the production of raw silk in India was estimated to be a little over 2½ million pounds in 1927-28, the contribution of Bengal being rather an uncertain factor in the calculation.

Excluding the small amount of export out of this indigenous production and including the imports which amount to about two million pounds, the total consumption or demand in India is estimated to be somewhere in the neighbourhood of 4½ million pounds annually.

39. The data asked for is given in the table below:—

Year.	QUANTITY SOLD IN POUNDS.					
	IN FOREIGN COUNTRIES.		IN INDIA.		IN KASHMIR.	
	Silk.	Wastes.	Silk.	Wastes.	Silk.	Wastes.
<i>Kashmir Factory.</i>						
1927-28	1,03,253	1,05,634	72,871	1,929	2,080	..
1928-29	1,15,797	96,157	57,769	3,037	1,643	..
1929-30	34,949	1,03,160	82,807	3,151	3,339	..
1930-31	54,676	30,258	40,837	2,793	8,999	..
1931-32 . . . . .	..	..	1,53,758	4,040	9,615	..
<i>Jammu Factory.</i>						
1927-28	7,041	20,126	13,403	106	80	50
1928-29	1,357	8,383	13,337	4,871	159	6½
1929-30	3,019	28,468	14,296	96	33	12
1930-31	3,810	25,541	11,167	208	202	25
1931-32	3,057	7,500	39,234	1,811	..	15

Local sales are as a rule made direct; other sales are made through Agents, as already described in detail in this Office No. 132/Sr., dated the 4th January, 1933, under point 2.

40. The rates paid by us from time to time to different ports and inland stations are as follows:—

	Distance in miles.	Freight per maund of silk.	Rate per maund per mile.
		Rs. A. P.	Pie.
Rawalpindi to Karachi	897	3 14 7	-83
Rawalpindi to Howrah	1,355	6 0 5	-85
Rawalpindi to Bombay (via Bhatinda)	1,253	5 7 3	-83
Rawalpindi to Benares	926	4 0 7	-83
Rawalpindi to Amritsar	212	0 15 2	-85

41. The statement desired is given below:—

Year.	AVERAGE RATES OBTAINED.				
	IN EUROPE.		IN INDIA.		IN KASHMIR.
	Silk.	Silk-wastes.	Silk.	Silk-wastes.	Silk.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1926-27	11 13 8	2 11 4½	12 14 5	4 6 5	11 10 8
1927-28	11 3 7	1 9 0	10 13 9	0 9 11	8 14 8
1928-29	11 13 2	1 11 7	10 10 0	1 5 5	10 9 8
1929-30	7 13 4	1 1 7	10 7 5	0 10 8	9 10 11½
1930-31	6 2 10	0 9 0	8 7 8	2 1 7	7 8 10
1931-32 . . . . .	..	..	6 11 6	0 10 8	6 13 5

The rates shown realized in Europe are exclusive of Home charges but inclusive of freight charges which for London come to As. 3 per pound, for Lyons As. 2-7 per pound and for Milan to As. 4-2 per pound. Thus it will appear that in the first year and the last three years of the foregoing statement the Indian Market gave better results than the European Markets but in the years 1927-28 and 1928-29 the European Market has paid better values for our raw silk.

42. The different qualities of raw silk we produce are as follows:—

(A) *Province of Kashmir.*

Lotus.

Iris.

Tulip.

Saffron.

(B) *Province of Jammu.*

Neel.

No. 1.

No. 2.

Lotus quality is produced from selected No. 1 cocoons reeled in new Filatures which are equipped with the most modern machinery.

Iris quality is reeled from No. 2 cocoons in the said new Filatures.

Tulip quality is reeled from No. 1 cocoons in old Filatures equipped with machinery manufactured locally.

Saffron quality is reeled from No. 2 cocoons in the aforesaid old Filatures.

Neel quality is reeled from the selected cocoons by the extra skilled labour on modern Basins.

No. 1 quality is reeled from No. 1 cocoons on locally manufactured Basins.

No. 2 quality is reeled from No. 2 cocoons on locally manufactured Basins.

Thus it will appear that our grading of silk is not done *after silk has been* reeled, but in the manner described hereinbefore. The daily testing of the quality of all the brands mentioned above helps us to maintain standards which we aim at. Should any silk thus tested prove to be below our requirements, *which is very rare*, the silk found to be defective is relegated to one of the lower classes.

This method has so far been found to work well and we do not feel it necessary to make any change in it.

43 & 44. These questions does not concern us.

45. The "kinds of imported silk as classified in the Indian Customs Tariff" which "compete with the different kinds of Indian silk" are all the varieties of "Chinese" high and low.

46. There is clear evidence of production of raw silk by sweated labour. There is strong suspicion of dumping but there are no incontrovertible data available to prove the latter.

47. Our raw silk compared to the cheap stuff coming in from abroad chiefly from China and partly from Japan has the reputation of being the stronger and more uniform and is therefore preferred for warp.

48. Judging by the trend of events we do fear that competition from Foreign countries is likely to increase in the future owing to the exchange factor, specially as the Chinese and Japanese Currencies can easily be manipulated while the rupee is pegged to the sterling.

49. This does not concern us.

50. This is a matter with which we are not directly concerned Messrs. Sassoons and Chhoi Silk Mills of Bombay who are in this line will, it is trusted, supply the necessary information.

51 & 52. So far as Sericulture in the Province of Jammu and Kashmir is concerned, the data furnished so far to the Tariff Board will have made

it clear that the "serious decline" referred to has not taken place in the area we are concerned with. Here there has been a set back or arrest in growth. We believe that the reference in the questionnaire pertains to Sericulture in Bengal as to which the reasons given by Mr. Lefroy in his Report on the Silk Industry in India (1916) at page 209 are obviously responsible.

53. So far as Sericulture in Kashmir is concerned our position broadly speaking is that the depressed condition of the Silk Market which has ruled out profitable working for the time being, has compelled us to curtail our operations in regard to the production of cocoons and raw silk. As soon as better market conditions are re-established with the help of the Tariff Board, we shall resume the course of our normal working, which includes the programme of further expansion as well. Should our hopes in this matter materialize early then it will appear that the trouble we are suffering from will prove to be of a temporary character.

54. Foreign Markets in the past have, no doubt, constituted the chief avenue of our sales but as for some years it has been not profitable to send our goods abroad by reason of the low prices which have prevailed in Europe; and, further as the Home Market in India has offered us a comparatively better outlet, *exports* have been stopped in respect of raw silk and curtailed in respect of silk-wastes.

Provided the Home Market makes it worth our while to sell the whole of our output in India it will probably be our constant endeavour to remain in the Home market but should economic considerations require a different policy we are prepared to follow it. It is difficult to say, however, in these uncertain times of economic world-wide slump what the prospects of revival of business in Europe there are.

55. For our detailed views in this respect reference is invited to the Note on "Raw Silk Industry in the Provinces of Jammu and Kashmir" which was sent in December last.

56. (A) The reply to this part of the question is in the affirmative. Detailed reasons in support of it have already been furnished in the aforesaid "Note of December last".

(B) & (C) The reply to these parts of the question is also the same as given above under (A).

57. This question has already been discussed in detail in the Note of December last referred to hereinbefore which may kindly be referred to. It remains however to add that the protection asked for should be for a reasonable period of 15 to 20 years so as to enable us to prepare ourselves fully to meet unaided, fairly and squarely, competition of the more advanced and highly organised Foreign countries.

58. This has been dealt with in detail in our Note of December last mentioned hereinbefore which may please be referred to.

59. This does not concern us directly.

60. The data furnished in this connection in the aforesaid Note of December last will show that appreciable reduction in the cost of production has already been effected. Further reduction in the cost of production will be effected gradually both directly and indirectly—directly by improving in reeling, the average productivity of the worker concerned, and by enhancing the yield of cocoons and raw silk per unit of silk-worm eggs and cocoons respectively; and, indirectly, by lowering the overhead charges by expanding the scope of our operations both in cocoon production and Reeling. It is difficult however at this stage to say definitely what the amount of ultimate reduction will be and at what pace the said reduction will be effected,

Maximum quantity of Silk that can be produced at the Factory with the present Buildings and Machinery.

Average outturn per basin per day during Baisakh to Har, 1989	lbs.	1-4-3
Total number of basins which can be utilized if the Factory is worked to its maximum capacity	lbs.	992
Total number of days the Factory can be worked during the year		290
992 basins in 290 days at lbs. 1-4-3 per basin per day can give an outturn of	lbs.	362,971
	Say lbs.	363,000
Additional quantity of silk which can be obtained by reeling 6 skeins instead of 5 in Nos. 4 and 5 Filatures	lbs.	43,000
	Say lbs.	400,000

(5) *Addendum to the replies to the detailed questionnaire issued by the Tariff Board regarding Sericulture.*

(Handed in by the Director of Sericulture, Jammu, on the 13th February, 1933.)

(1) *Question No. 3—*

Kashmir—

1931-32—Value of Cocoons Rs. 6,76,275.

1931-32—Value of Silk Rs. 13,05,473.

Question No. 23 (a)—

Kashmir—

1931-32—Total Works expenditure on Reeling Rs. 13,05,473.

*Question No. 23 (b).—*For the year 1931-32 the figures corresponding to items mentioned in Statement E (Kashmir) attached to the printed note on "Raw Silk Industry in the Provinces of Jammu and Kashmir" stands as follows—

Year.	Cost of a Maund of Cocoons in rupees.	AVERAGE COST OF PRODUCING ONE POUND OF SILK.		Total charges.
		Value of cocoons in rupees.	Manufacturing expenses in rupees.	
1931-32	26 13 4	4 7 6	2 1 8	6 9 2

In case of Jammu the cost of silk per pound in 1927-28 works out Rs. 9-4-9.

Net cost of production per pound of silk for the abovementioned years works out as follows:—

Year.	Cost excluding interest on capital and leaf supplied from Government lands.	Add interest on Capital.	Add value of leaf supplied from Govt. lands.	Total.	Deduct value of bye-products.	Net cost per pound of Raw silk.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
<i>Kashmir.</i>						
1931-32 .	6 9 2	1 1 9	0 8 0	8 2 11	0 6 11	7 12 0
<i>Jammu.</i>						
1927-28 .	9 4 9	0 14 5	0 8 0	10 11 2	1 1 0	9 10 2

Question No. 33.—In 1928-29, the amount written off on account of Depreciation on Buildings (Jammu) Rs. 2,851 is mis-type for Rs. 3,851.

(2) Measure of protection asked for.

	Rs. A. P.
Average cost of production per pound of raw silk as given in the printed note	6 10 0
Tariff value of Chinese Silk in 1932—	
Mathew	2 10 0
Panjam	1 13 0
White Shanghai, Thonkoon or Doppion	2 14 0
White Shanghai, other kinds	4 8 0
White, other kinds	4 8 0
Yellow Shanghai	4 1 0
Yellow, other kinds	4 6 0
Total	24 12 0
Average	3 8 6 $\frac{2}{3}$

Difference in our cost and the above average tariff value=Rs. 6 10 minus Rs. 3-8-6 $\frac{2}{3}$ =Rs. 3-1-5 $\frac{1}{3}$.

Add on account of margin of profit As. 8.

Hence specific duty asked for—at least Rs. 3-8 per lb. or *ad valorem* duty of 100 per cent, whichever is higher.

	Rs. A. P.
(2) Average cost of production per pound of raw silk as worked out according to instructions issued by the Tariff Board	7 12 0
Tariff Value of Chinese Silk in 1933:—	
Mathow	2 3 0
Panjam	1 8 0
White Shanghai, Thonkoon or Doppion	2 12 0
White Shanghai, other kinds	4 4 0
White, other kinds	3 4 0
Yellow Sharghai	4 0 0
Yellow, other kinds	3 5 0
Total	21 4 0
Average	3 0 6

Difference in our cost of production and average tariff value = Rs. 7-12 minus Rs. 3-0-6 = Rs. 4-11-5. Add on account of margin of profit As. 8. This would indicate roughly a specific duty of Rs. 5-4 per lb. or *ad valorem* duty of 150 per cent.

(3) *Consumption of Jammu Silk in various Indian Markets in 1931-1932.*

TOTAL SALES—39,230 lbs.

Share of Benares 5,457 lb., *i.e.*, roughly 14 per cent.
 Share of Surat 1,400 lbs., *i.e.*, roughly 3½ per cent.
 Share of Multan 2,620 lbs., *i.e.*, roughly 7 per cent.
 Share of Jullendher 2,024 lbs., *i.e.*, roughly 5 per cent.
 Share of Amritsar 27,438 lb., *i.e.*, roughly 70 per cent.
 Share of other places 291 lbs., *i.e.*, roughly ½ per cent.

NOTE.—Share of Amritsar largest this year because of a firm there having purchased (a) the whole stock lying at our hands in Autumn 1931 and (b) one year's output of No. 1 and No. 2 silk from February, 1932.

(4) *Sales of Jammu and Kashmir Silk in Principal Indian Markets.*

Markets.	1929. lbs.	1930. lbs.	1931. lbs.
Bombay and Surat	1,105	1,996	61,044
Amritsar, Multan and Jullendher	5,250	10,063	43,849
Calcutta . . . . .	...	8,000	...
Benares	18,796	30,221	30,921
Delhi . . . . .	...	...	200,054

(5) *Receipts.*

	Rs. A.
1½ piculs of raw silk at \$1,500 H. K.— \$2,587-50	1,752 0
Waste silk about 90 catties at \$180-00— \$163-00	110 6
Pupae, about 600 catties at \$0-15—\$90-00	60 15
Unreleable cocoons about 30 catties—\$6-00	4 1
	<hr/> 1,927 6 <hr/>

Total in Canton money comes to \$2,846.50—Taking \$1.20 of Canton money equal to \$1.00 Hongkong and \$1.00 Hongkong equal to As. 13 the total in Indian currency comes to Rs. 1,927-5.

Receipt per pound of silk comes to Rs. 8-12.

Receipt per pound of silk including raw silk, waste, pupae and unreelable cocoons comes to Rs. 9-9-9.

(6) *Estimate of an average cost of production of Raw Silk.*

Steam Filature of 400 basins reeling 20/22 denier and producing about 1½ piculs of raw silk in 1 day at the basis of 5 piculs of cocoons to 1 picul of silk.

	Rs. A.
7½ piculs (1,000 lbs.) of cocoons at \$300.00 (Rs. 203-2)	1,523 8
Wages of 400 reeling women at \$65	176 0
Wages of 10 re-reeling women at \$1.00	6 12
Salary of General Manager, Manager of Filature and Warehouse, Foremen and other employees	20 5
Coal, 2½ tons at \$25.00	42 5
Rent and Land Taxes, etc.	13 8
Warehouse costs	16 14
Food, incidentals, etc.	13 8
	<hr/> 1,812 12

Total in Canton money comes to \$2,677.50—Taking \$1.20 of Canton money equal to \$1.00 Hongkong and \$1.00 Hongkong equal to As. 13 the total in Indian currency comes to Rs. 1,812-14.

NOTE.—If poorer quality of cocoons were used there would be more 7½ piculs used and with low prices for raw silk the cost of cocoons would be much lower, often going down to \$150.00 (Rs. 101-8) or even \$100.00 (Rs. 67-12) per picul—or sav As. 12-2 or As. 8 per lb. respectively equalling about Rs. 60 or Rs. 40 per maund of cocoons.

These estimates give a cost of production of \$1,785.00 per picul for 20/22 denier silk or Rs. 1,208-9-6 per picul. The cost of production per pound of silk comes to Rs. 9.

(7) *Government Capital Account.*

Year.	Capital.	Rate of interest. per cent.	Amount of interest.
	Rs.	Rs.	Rs.
1927-28	27,04,362	6	1,62,261
1928-29	27,26,597	6	1,63,595
1929-30	30,59,918	6	1,83,595
1930-31	35,39,011	6	2,12,340
1931-32	36,81,565	6	2,20,893

The amount of interest per pound in different years.

1927-28—Rs. 1,62,261 divided by lbs. 180,068 = Re. 0-14-5.
 1928-29—Rs. 1,63,595 divided by lbs. 202,009 = Re. 0-12-11.
 1929-30—Rs. 1,83,595 divided by lbs. 195,922 = Re. 0-14-11.
 1930-31—Rs. 2,12,340 divided by lbs. 167,532 = Re. 1-4-3.
 1931-32—Rs. 2,20,893 divided by lbs. 198,485 = Re. 1-1-9.

(8) *Figures of expenditure for 1931-32.*

	Rs.
1. Salaries	40,374
2. Establishment	98,880
3. Travelling Allowance	4,539
4. Contingencies	32,507
5. Postage and Telegrams	693
6. Purchase of Seed	31,741
7. Commission on Profits	7,793
8. Price of Cocoons	5,32,695
9. Carriage of Silk	12,192
10. Reeling and Baling	2,34,671
11. Fuel	46,683
12. Building and Machinery	5,143
13. Repairs	8,052
14. Electric Charges	6,057
15. Fire Insurance	5,332
16. Rearing and Local Seed	31,931
17. Stationery	805
Total	11,00,088
Depreciation on Buildings and Machinery	68,453
Grand Total	11,68,541

(9) *Cost of production per maund of Cocoons produced in Kashmir during 1931-32.*

	Rs.
Salaries	18,857
Establishment	52,528
Contingencies	30,157
Fuel	378
Cost of Electric Power for Sechoirs	52
Rearing and Local Seed	31,931
Price of Cocoons	4,83,695
Stationery	350
Purchase of Seed	31,741
Postage and Telegrams	51
Fire Insurance	1,777
Travelling Allowance	4,498
Depreciation	20,260
Total	6,76,275

Quantity of cocoons produced—25,201 maunds.

Cost per maund of cocoons—Rs. 26-13-4.

(10) *Cost of production per pound of Silk in Kashmir during 1931-32.*

Rs.

Total expenditure incurred during the year . . . 11,68,541

Deduct—

Rs.

Debited to Rearing . . . 6,76,275

Paid to Jammu Sericulture
Department on account of
cocoons purchased . . . 49,000

Building and Machinery . . . 5,143

Commission on Profits . . . 7,793

Carriage of Silk . . . 12,192

7,50,408

4,18,138

Add—Value of cocoons issued for
reeling 32,733 maunds at
Rs. 26-13-4 per maund . . .

8,78,335

12,96,473

Quantity of silk produced during the year—198,485 lbs.

Cost of production per pound of silk—Rs. 6-8-6.

(11) *Statement showing cost of production of Cocoons and Raw Silk in the Province of Kashmir for 1931-32.*

Year.	Cost of a maund of cocoons in rupees.	AVERAGE COST OF PRODUCING ONE POUND OF RAWSILK IN RUPEES.				Interest on the capital invested per pound.	Cost of mulberry leaf sup- plied from Govt. lands per lb.	Grand total.	Value of bye-products per pound.	Net cost per lb.
		Value of Coo- cons.	Manufacturing charges.	Total.						
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1931-32	26 13 4	4 4 6 10	2 1 8*	6 8 6	1 1 9	0 8 0	0 8 2 3	0 6 11	7 11 4	

	Rs. A. P.
*1. Cost of fuel Electric charges and Contingencies . . .	0 5 1
2. Reeling cleaning water and baling charges . . .	1 2 11
3. Supervision and management charges . . .	0 5 6
4. Miscellaneous charges . . .	0 4 2
TOTAL . . .	<u>2 1 8</u>

Rs.

1. Total works expenditure on production of cocoons during 1931-32 . . . 6,76,275

2. Total works expenditure on reeling during 1931-32 . . . 12,96,473

(12) *Price of leaf from Government lands.*

Leaf of 20 trees (1,000 seers) is required to produce one maund of cocoons.

Price of leaf of one tree—As. 4.

Price of leaf required for one maund of cocoons—Rs. 5.

Price of leaf issued from Government lands (60 per cent.) for one maund of cocoons—Rs. 3.

Year.	Quantity reeled in green maunds.		Quantity of silk produced.	
1931-32	32,733	× Rs. 3=Rs. 98,199÷	198,485	=As. 7 11 Say As. 8 per nound.

(13) *Statement showing approximate charges incurred on silk, silk-waste from Srinagar to Port of Landing and European charges.*

Serial No.	Market.	Particulars.	Size.	Charges per lb. from Factory to port of landing.	European charges.	Total.	Present rate of European charges on gross proceeds.
				A. P.	A. P.	A. P.	Per cent.
1	London . .	Lotus . . .	15/15	3 0	4 3	7 3	2.12
2	" . .	Iris R. I. B. . .	15/15	2 11	4 3	7 2	2.12
3	Lyone . .	Lotus . . .	15/15	2 7	13 3	15 10	6.70
4	" . .	Iris . . .	15/15	2 6	11 10	14 4	6.78
5	Milan . .	" . . .	15/15	4 2	4 2	8 4	2.71
6	London . .	Special Sarnakh . .	..	2 6	1 5	4 1	4.44
7	" . .	No. 2 Sarnakh . .	..	2 7	0 8	5 3	3.67
8	" . .	Khokhartar . .	..	2 7	0 11	5 6	4.20
9	Marseilles . .	No. 1 Sarnakh . .	..	2 3	0 7	2 10	2.39
10	" . .	Guddar No. 1 . .	..	2 0	0 5	2 5	3.60
11	" . .	" " 11 . .	..	2 0	4 0	2 4	8.66
12	" . .	Nim-Guddar . .	..	2 0	0 4	2 4	8.25
13	" . .	Basin Refuse . .	..	2 0	0 5	2 3	7.14

European charges in Lyons include Railway Freight from Marseilles to Lyons.

(6) *Letter No. 2789, dated the 21st February, 1933, from His Highness' Government of Jammu and Kashmir, Jammu.*

With reference to your letter No. 52, dated the 20th January, 1933, to the address of the Hon'ble Resident in Kashmir, I have the honour to forward herewith seven copies of my note which deals with the points in the questionnaire.

One copy of this note is being sent through the Hon'ble Resident in Kashmir.

Enclosure.**HANDLOOM WEAVING INDUSTRY IN JAMMU AND KASHMIR STATE.**

1. About 2,000 weavers are engaged in the weaving of pure silk goods. The handloom weaving of silk industry is confined to the city of Srinagar. The silk weaving is mostly done on a cottage scale as well as on small

factory scale. A very up-to-date power loom factory is under construction, and when completed, it will have 100 power looms. Silk weavers employ fly-shuttle handlooms.

- (a) Weavers engaged in weaving pure silk goods only—2,000.
- (b) Weavers engaged in weaving artificial silk goods—125.
- (c) Weavers engaged in weaving cotton goods—42,000.

2. Sources of raw material—

- (i) Imported silk yarn which is mostly spun silk is obtained:—
 - (a) direct from the manufacturers' agents in Bombay;
 - (b) through the local dealers.
- (ii) Raw silk:—
 - (a) direct from the local Government silk factories;
 - (b) imported Yarkand raw silk from local dealers.
- (iii) Artificial silk:—
 - (a) direct from the manufacturers' agents.

Price paid per pound of spun silk imported direct by the handloom weavers through the manufacturers' agents ranges from Rs. 4-4 to Rs. 4-8 at present. Price paid per pound of spun silk purchased through the local dealer is subject to the additional charge of As. 4 per lb. The weaver-owners in possession of less than 10 handlooms depend for the supply of spun silk yarn upon the local dealers and the factory owners with 10 or more handlooms arrange to receive their supply direct from the manufacturers' agents.

Kashmir raw silk is sold according to grades, and the price ranges from Rs. 6-12 to Rs. 7-8 (for 22/D and above counts per pound. Purchases are made direct from the Government Silk Factories. Price of Yarkand raw silk per pound is Rs. 5. Artificial silk is obtained from the manufacturers' agents in India, and the price paid varies from Re. 1-2 to Re. 1-8 per lb.

3. In case of weavers who possess one or two handlooms, all preparatory processes are performed by weavers themselves. In the case of factory production, there are separate workers who do the twisting and winding, doubling and warping, dyeing and finishing.

4. It differs from class to class; when goods are produced from pure Kashmir raw silk, the warp is of finer grade of yarn than the weft. In case of spun silk, usually yarn of 140 counts is employed both for warp and weft; but occasionally finer count of 210 is used for the warp and 140 for the weft. Sometimes to create surface effect as in Daryai, Kashmir raw silk is used as weft, spun silk being used as warp.

Artificial silk is exclusively employed for Gulbadan (striped Daryai) and plain Daryai. Same count of artificial silk is employed both for warp and for weft.

5. The following varieties of goods which are produced locally cover more or less the categories mentioned in the questionnaire:—(a) Gulbadan, (b) Daryai, (c) Sarees, (d) Dopattas, (e) Suitings and Shirtings, (f) Doties, (g) Loongies, (h) Turbans and (i) Handkerchiefs.

There is no production of Gota or Kimkhab in the State.

The products of the handloom weaving industry have to compete against the following classes of imported goods:—

- (i) China Silk—available in pieces of 15 yards, 25 yards and 50 yards of 25", 27", 30" and 36" width at As. 6 to As. 8 a yard;
- (ii) Boski and Fugi—available in pieces of 25 and 50 yards length, 29" wide, at As. 10 to As. 14 a yard;
- (iii) Crepe Silk—available in pieces of 25 yards with width of 42" to 45" at Re. 1-2 to Rs. 2-4 a yard;

(iv) Spun Silk (striped and figured)—available in pieces of 25 yards width 27" at As. 14 to Re. 1-6 a yard.

(v) Artificial Silk Goods (figured, striped and plain)—available in pieces of 25 and 30 yards of 25" and 27" wide at As. 4-6 to As. 7 a yard.

Competition is felt most in the case of goods of all kinds produced from Kashmir raw silk, because of the high price of the raw material compared with the artificially lowered prices of imported silk.

6. It all depends on the quality and length of a given price. Generally, a silk piece of 25 yards of Kashmir raw silk is finished in 5 days, inclusive of preparatory operations. On the other hand, a piece of the same length of spun silk can be finished in 3 days. Time taken in each case is as follows:—

(i) Gulbadan or Daryai—4 yards a day;

(ii) Sarees:—

(a) Kashmir raw silk—5 yards a day.

(b) Spun silk—8 yards a day.

(iii) Dopattas—same as Sarees.

(iv) Shirtings and Suitings—same as Sarees.

(v) Turbans—same as Sarees.

(vi) Loongies—6 yards a day.

(vii) Handkerchiefs—5 yards a day.

Time taken in weaving each class of goods must vary with the closeness of texture or number of ends and picks per inch. Again production per loom per day varies with the efficiency of the individual weaver. But what has been indicated in each case relates to average of each class.

7. *Gulbadan, Daryai, and Loongies.*—Kashmir raw silk for weft and spun or artificial silk is used for warp as 'effect' to be produced is the main object in view. If the cloth is to be made cheap, artificial silk is used both for warp and weft. Quantity of silk yarn used amounts to 5,000 lbs. of spun silk (imported) and locally available raw silk combined.

Sarees, Dopattas, Turbans, Shirtings and Suitings, Handkerchiefs, and Doties.—Kashmir silk and imported spun silk, where Kashmir raw silk is used, warp and weft are of the same; the same applies to goods made of spun silk. To a limited extent, not exceeding 5 per cent. of the total produce, mixed goods of Kashmir raw silk and imported spun silk are made.

Quantity of silk yarn used for this class of goods comes to 145,040 lbs. of which locally made silk yarn is 9,000 lbs. and imported silk yarn 136,040 lbs.

8. *Gulbadan, Daryai, and Loongies.*—In length of 25 yards piece, width 24". Price per yard varies from Re. 1 to Rs. 1-4 artificial silk piece sells at As. 6 a yard.

Sarees, Dopattas, Doties, Turbans, and Handkerchiefs.—25 yards piece, width 45". Special requirements may be in greater width. Price per yard of spun silk goods varies from As. 13 to Re. 1-2 and in case of goods of Kashmir raw silk, price per yard from Re. 1-2 to Rs. 2-4.

9. The total value of all varieties of silk goods produced has been roughly estimated at Rs. 10,50,000.

10. Spun silk finds use in all classes of goods. In fact, this is a cheap substitute for costly silk goods. For instance Sarees, Dopattas, etc., are made both from spun silk and Kashmir raw silk. Cheapness is the criterion. Quality has to be relegated to the back ground.

11. The handloom weaving factory owners obtain their supply direct from the manufacturers' agents at the port. Individual weavers obtain their requirements through local dealers usually on cash basis. The local Government Silk Factory sells raw silk against cash payment. In charging the

price, the same rebate in the interest of the local industry is allowed as is permissible on sales made outside the State, on orders of 4,000 lbs. of silk.

12. In reply to the preceding question, it has been stated that the hand-loom factory owners obtain their supplies direct from the manufacturers' agents and individual weavers obtain their supplies from the local retail dealers.

13. The quality of Indian Silk, particularly of Kashmir raw silk, compares very favourably with that of imported silk. It is stronger and therefore the cloth produced from it wears much longer than the imported silk cloth. It has greater lustre, elasticity and tenacity. It is clean and uniform in size. The cloth made from Indian Silk washes better than the imported silk cloth. Silk merchants are of opinion that Indian silk for reasons of its superior quality is preferred by silk weavers, but is costly and cannot possibly compete against foreign imports.

14. This is not generally the case. Usually weavers buy silk yarn and prepare the goods and sell them in the open market. Not even 5 per cent. of the goods are produced by supplying silk to weavers and taking back cloth from them.

15. The introduction of artificial silk has adversely effected the market for real silk goods. No doubt what was once a luxury and the fashion of the rich has become democratised and the possession of many. But longevity of cloth has suffered along with its outward appearance, instead of the cloth being kept as a family heir-loom to be used by generation of weavers, it is soon worn out. The danger lies in the deterioration of standard and elimination of superior make stuff because of the low price of the competitive stuff.

16. Cost of production of typical classes of cloth such as cloth suitable for Sarees, Dopattas, Shirtings is as follows:—

	Rs.	A.	P.
I. Raw Material.—One pound of spun silk yarn yields 7 yards of cloth 43' wide and costs .	4	8	0
II. (a) Manufacturing charges for winding, warping, mounting, etc.	0	2	6
(b) Weaving charges As. 2-6 per yard	1	1	6
(c) Dyeing and finishing	0	8	0
(d) Over-head charges	0	5	0
(e) Other charges	0	5	0
Total	6	14	0

Price per yard approximately comes to Re. 1. Weavers are paid on piece system. The rate of wages varies from As. 1-6 to As. 3-6 per yard.

17. Silk Weavers as apart from Weavers of Kashmiri hand spun woollen, have not taken advantage of the co-operative movement.

18. The silk piecegoods produced by the local weavers and factory owners are sold in the local market to dealers in embroidery, to seasonal visitors, and a considerable quantity is exported to India. About 25 per cent. of the local produce is consumed for embroidery purposes and the balance is sold to seasonal visitors and exported to various parts of India.

Besides the transportation charges, commission is paid to the Sales Agents. Some of the manufacturers, however, maintain their own shops for retail sales.

19. Judging from the import figures, the production during 1931-32 has gone down as compared with the volume of goods turned out during 1930-31. Something may be due to trade depression but it remains a fact that weavers and factory owners have to struggle hard to maintain a footing in the market in face of the competition of imported goods. It is the

firm belief of the weaver and the manufacturer that under proper protection silk weaving can expand 100 times of its present volume.

20. So far as the Kashmir handloom weaving of silk industry is concerned, the supply of raw silk is available from the Government filatures at Jammu and Srinagar. The amount of Kashmir raw silk consumed by the local weaver has grown steadily from 2,000 lbs. to 9,650 lbs. in 4 years time. If more cannot be used, it is because the times are hard and cheap imported yarn is strangling the longer superior product out of the market.

(7) Letter No. 2629, dated the 14th March, 1933, from the Director of Sericulture, Jammu and Kashmir, Srinagar.

I have the honour to enclose herewith a statement showing "the annual cost of working a Filature in Kashmir" on the lines as communicated by you verbally to Mr. T. C. Wazir at New Delhi.

Partly owing to the fact that I returned to Srinagar later than was originally intended and partly because the information with regard to present cost of Reeling machinery and Boiler plant has had to be obtained from abroad it has not been possible for me to furnish you with the aforesaid statement earlier.

Enclosure.

Statement with regard to annual cost of working a Filature in Kashmir.

Basis:—

1. Private Concern.
2. 200 basins equipped with modern machinery (including Jette Bout and Machine Brushes).
3. Each basin to have fittings for 8 skeins.
4. Size to reel 13/15 to 28/32 deniers.
5. Working days 300, hours of work 9 daily.
6. Cocoons to be consumed same as produced in Kashmir.
7. Site—Rambagh, Srinagar, where the present Factory is situated.

	Rs.	Rs.
1. Total capital cost		3,34,820
(a) Buildings (as per Statement A)	1,03,550	
(b) Machinery (as per Statement B)	2,21,270	
(c) Land 50 Kanals at Rs. 200 per kanal (purchase price)	10,000	
Total	3,34,820	
2. Cost of cocoons		3,53,422

(This amount represents the cost of cocoons to be reeled during the year, viz., 13,171 maunds at Rs. 26-13-4 per maund.)

The rate adopted is the same as given in the cost Statement for 1931-32 handed over personally to the Tariff Board on 14th February, 1933.

The asked-for details of this rate under different heads are given in Statement C.

3. Cost of labour	Rs.
	95,231

Details as to number and rate of wages, etc., of labour required are embodied in Statement D.

	Rs.	Rs.
4. Cost of electric power, steam and water . . .		21,857
I. Electric power for turning reels—		
(a) Cost of power for two 5-H.P. Motors at Rs. 7-8 per Horsepower per month	900	
(b) Cost of power for three 1½ H.P. Thermoventilators at Rs. 7-8 per Horsepower for four months . . .	300	
(c) Lighting charges	210	
		<hr/>
Total . . .		1,410
II. Water Charges		300
III. Steam—		
Price of 44,250 maunds (21,325 Kharwars) at Rs. 90 per hundred Kharwar delivered <i>ex</i> -Factory	19,193	
Splitting charges	954	20,147
		<hr/>
Grand Total . . .		21,857
		<hr/>
5. Cost of Supervision including Office Estab- lishment as per Statement E.	17,988	
6. Cost of current repairs and maintenance . . .	2,200	
7. Cost of packing (2,057 bales of 50 lbs. and Re. 1-14 per bale)	3,867	
8. Miscellaneous charges as per following details .		13,680
I. Selling Expenses—		
Sale Proceeds of 90,000 lbs. of silk at Rs. 7 per lb.—Rs. 6,30,000.		
Commission at 1½ per cent.	9,450	
		Rs.
II. Insurance—		
Value of Buildings	1,03,550	
Value of Machinery	2,21,270	
Value of Stocks	2,00,000	
		<hr/>
Total . . .	5,24,820	
		<hr/>
Premium on Rs. 5,24,820 at As. 10 per cent.	3,280	
III. Stationery	150	
IV. Postage and Telegrams	300	
V. Contingencies	500	
		<hr/>
Total . . .	13,680	
		<hr/>

Outturn of Silk.

	Rs.
Outturn of silk—90,000 lbs.	
(At an average rendement of 4:1) from 360,000 lbs. (dry) of cocoons (at 6 lbs. per basin for 200 basins for 300 days) equalling 13,171 Mds. green	
1. Cost of Cocoons	3,53,422
2. Manufacturing Expenses	1,54,813
Total Cost	<u>5,08,235</u>

Cost of production per pound of silk.

Value of Cocoons.	Manufacturing Expenses.	Total charges.
Rs. 3-14-10	Rs. 1-11-6	Rs. 5-10-4
Total cost of 90,000 lbs. of silk		5,08,235
Less value of bye-products as per Statement F.		<u>47,786</u>
		Balance
		<u>4,60,449</u>

Cost of production per lb. of silk after deducting value of bye-products Rs. 5-1-10, Interest on Capital, Depreciation on Buildings and Machinery, price of leaf issued from Government lands have not been included in the cost, as desired.

STATEMENT A.*Buildings.*

	Rs.
1. Cocoon store with weighment and sorting shed	36,000
2. Building for Sechoirs (4 sets of 12 compartments)	7,000
3. Cocoon issuing house	1,000
4. Filature	16,500
5. Boiler House	4,000
6. Fixtures in Filature (including electric fittings, lamps, etc.)	650
7. Water Reservoir	5,000
8. Ten seated latrine	500
9. Gate Keeper's hut	200
10. Tramway line for carting of wood	4,000
11. Silk and Waste Godown, testing room and Office	14,000
12. Sentries Quarters	700
13. Compound Wall	12,500
14. Drains, roads, taps, water connection, etc.	1,500
Total	<u>1,03,550</u>

STATEMENT B.

Machinery.

	Rs.
1. Sechoirs (four of twelve chambers)	27,200
2. Two hundred Basins complete at Rs. 702-8 per Basin delivered Srinagar	1,40,500
3. Two 5 Horsepower Motors	1,000
4. Eight Thermoventilators	5,500
5. Boilers (two 64 Horsepower boilers erected at Srinagar)	43,570
6. Filature appliances (Denier scales, Testing machines, Murani stands, Serimeter, etc.)	1,500
7. Silk-Waste Press	1,000
8. Rewinding Machinery	1,000
Total	2,21,270

STATEMENT C.

Details of Rs. 26-13-4.

	Average cost per md.
	Rs. A. P.
Price of Cocoons*	18 6 11
Lamberdari†	0 4 2
Carriage	0 8 1
Salaries and Establishment (Supervision and Management)	2 13 4
Contingencies (including Mulberry Culture expenditure)	1 3 2
Fuel and Electric charges for stifling	0 0 3
Rearing charges	1 0 10
Stationery and Postage Stamps	0 0 3
Local Seed charges and Purchase of Foreign Seed	1 7 6
Fire Insurance	0 1 2
Travelling Allowance	0 2 10
Depreciation	0 12 10
Total	26 13 4

* The rearers who brought in over 30 seers per ounce were paid at the rate of Rs. 18-12 per maund and those who brought in 30 seers and below were paid at Rs. 16-4 per maund.

† Only such Lamberdars whose villages gave an average of 38 seers and over per ounce were paid Lamberdari commission at 2 per cent.

STATEMENT D.

Labour.

	Rs. A.
Spinners, 200 at Re. 1 each	200 0
Cooks 100 at As. 7 each	43 12
Knotters, 50 at As. 8-6 each	26 9
Silkwaste Cleaners, 33 at As. 7 each	14 7
Nim-Gudar hands, 3 at As. 8 each	1 8
Brush repairer, 1 at As. 7	0 7
Silk Openers, 23 at As. 10 each	17 8
Press Operators, 2 at As. 10 each	1 4
Folders, 2 at As. 10 each	1 4
Silk Sorter, 1 at As. 12	0 12
Balers, 2 at As. 12 each	1 8
Silk Testers, 3 at Re. 1 each	3 0
Oilers, 2 at As. 12 each	1 8
Coolies for weighment and issue of wood to Boilers, 2 at As. 10 each	1 4
Coolies for carting wood, 2 at As. 10 each	1 4
Waste Press Coolies, 2 at As. 8 each	1 0
Store Coolie, 1 at As. 8	0 8
Total	317 7

For 300 days total cost of labour comes to Rs. 95,231.

STATEMENT E.

Staff.

	Rs.
1. Manager, 1 at Rs. 500	500
2. Assistant Manager, 1 at Rs. 150	150
3. Inspector (In charge Silk testing and Silk Waste Stores), 1 at Rs. 75	75
4. Supervisors, 8 at Rs. 30 each	240
5. Time-Keeper, 1 at Rs. 30	30
6. Mechanic, 1 at Rs. 70	70
7. Smith, 1 at Rs. 30	30
8. Firemen, 3 at Rs. 25 each	75
9. Sentries, 3 at Rs. 15 each	45
10. Sweepers, 3 at Rs. 13 each	39

Office Section.

1. Accountant, 1 at Rs. 80	80
2. Correspondence Clerk and Cashier, 1 at Rs. 60	60
3. Stenotypist, 1 at Rs. 45	45
4. Ledger Keeper, 1 at Rs. 30	30
5. Peons, 2 at Rs. 15 each	30
Total	1,499

Annual Cost—Rs. 17,988.

STATEMENT F.

Bye-Products.

		Rate	Amount.
	Mds. per lb. (dry).	As. P.	Rs.
Double Cocoons	731	12 0	14,985
Puda Cocoons	439	3 0	2,250
Pierced Cocoons	293	12 6	6,257

Silk-Wastes.

	lbs.	Rate per lb.	Amount.
		As. P.	Rs.
Sarnakh	19,800	14 0	17,325
Gudar	1,600	10 0	1,000
Basin Refuse	9,000	4 0	2,250
Nim-Gudar	17,850	2 6	2,789
Winding Waste	37	6 6	15
Fluff	1,830	8 0	915
Total			47,786

(8) Letter No. 2631, dated the 14th March, 1933, from the Director of Sericulture, Srinagar.

I have the honour to enclose herewith for your information copy of a corrigendum forwarded to me by the Deputy Director of Sericulture, Jammu, for transmission to you. The discrepancies which have now been corrected are much regretted.

Enclosure.

JAMMU SERICULTURE.

(1) Statement E of the Note—

Cost of production per maund of Cocoons, 1931-32.

Detail of expenditure under head "Price paid to Rearingers" is as follows:—

	Rs.
Price of Cocoons	1,47,375
Carriage from Rearing villages to crop receiving centres	2,278
Carriage from crop receiving centres to Jammu	3,040
Commission paid to Lamberdars	6,690
Miscellaneous such as weighing of cocoons, sewing charges of gunny bags and carriage of empty bags, etc.	265
Total	1,59,648

The outturn of cocoons is 7,964 maunds, not 7,664 maunds inadvertently noted in the statement. The mistake has been made in copying, otherwise the correct figure of 7,964 maunds is given in Statement A and the same has been adopted in Statement E also for calculating the cost of production as Rs. 28-2 per maund.

With the outturn of 7,964 maunds the average price of cocoons paid works out about Rs. 18-8 per maund.

The average distance of rearing villages from the crop receiving centres as asked for by the Board works out as follows for different Tehsils:—

Name of Tehsil.	Crop received at	Quantity of cocoons received.	Carriage paid to rearers from their villages to crop receiving centre.	Rate at which paid.*	Average amount paid per maund.	Average distance in miles.
		Mds. Srs. Ch.	Rs. A. P.	Pies.	As. P.	
Jammu . .	Jammu . .	357 0 8	253 2 0	9	7 5	10
Udhampur . .	Udhampur . .	306 29 12	92 8 9	6	4 10	9½
Do. . .	Do. . .	896 2 0	198 14 9	9	3 7	4½
Ramnagar (Chanuntha).	Do. . .	308 4 8	123 7 0	6	5 1	10½
Ramnagar (Khun).	Mansar . .	452 33 4	120 10 0	6		
Basohli . .	Dangars . .	548 12 12	123 10 9	6	3 7	7½
Kathus . .	Sumvan . .	307 34 4	36 12 9	6	1 11	3½
Hiranagar . .	Do. . .	98 16 8	25 2 0	6	4 1	8½
Riasi . .	Katra and Noni	472 13 14	86 0 9	6	2 11	5½
Rajauri . .	Poni and Nowshera.	1,457 15 8	687 3 3	6	7 6	15
Bhimber . .	Nowshera . .	1,371 30 8	312 14 0	6	3 8	7½
Ramban . .	Banihal . .	586 1 6	96 5 0	6	2 7	5½
Kishtwar . .	Chhatru . .	548 33 12	76 8 6	6	2 3	4½
Bhadrawan . .	Bhadrawan . .	72 27 4	44 11 0	6	9 10	19½

* For green cocoons the rate paid is nine pies per maund per mile, for dry cocoons the rate paid is six pies per maund per mile.

Detail of expenditure under other heads has also been worked out for this year and the same can be sent if desired or furnished on spot when the Board visit the Factory.

(2) *Statement A of the Note.*—1931-32. Number of villages brought under rearing should be 748, not 848.

(3) *Statement G of the Note.*—1928-29. Quantity of silk-wastes sold in India should be 5,052 lbs., not 2,052 lbs.

(4) The mistake in copying mentioned under (1) above affects the figure of Statement given in reply to question No. 3 of the detailed questionnaire of the Tariff Board. For 1931-32 the figures relating to quantity and value of cocoons should be 7,964 maunds and Rs. 2,23,987 in place of 7,664 maunds and Rs. 2,15,550 respectively.

(9) *Letter No. 232, dated the 27th March, 1933, from the Tariff Board, to His Highness's Government, Jammu and Kashmir.*

In connection with its present enquiry the Board would like to know whether, in case protection is granted to the Sericultural industry in India, a private concern would be allowed to start a filature in the Kashmir State, and whether it would have any difficulty in obtaining its raw materials and in disposing of its goods in the country. In short, how would the present policy of the State monopoly of the industry affect such an enterprise in the

State? If you could kindly let me have at an early date a short note dealing with the whole question of monopoly, I would be much obliged.

(10) *Letter No. 27/C., dated the 6th April, 1933, from His Highness's Government, Jammu and Kashmir.*

With reference to your letter No. 232-D. O. of 27th March, 1933, enquiring from me (a) whether in case protection is granted to the Sericultural industry in India, a private concern would be allowed to start a filature in the Kashmir State, (b) whether it would have any difficulty in obtaining its raw materials; and (c) in disposing of its goods in the country. You asked me "how would the present policy of the State monopoly of the industry affect such an enterprise in the State". You want a short note dealing with this question at an early date and I am sending one to you.

The notes so far submitted must have made it clear to you and the members of the Tariff Board that the régime of monopoly is not the outcome of any conscious effort made to control the extraction of the primary produce, namely cocoons and subsequent manufacture of raw silk, with a view to net in big profit for the State. Welfare of those employed in the industry and successful establishment of the industry have been the primary considerations. In some years profit was made; in other years a loss. The State never hesitated to mobilize a big staff for the purpose of planting and after care of mulberry trees as well as in the setting up of the filatures itself at heavy cost. The industry was in the initial stages left to private enterprise but it withered and it was only through the good offices of farseeing and wide-awake experts like Sir Thomas Wardle, Colonel Nisbet and others, backed as they were by the Government of India and His Majesty's Secretary of State for India, that the industry was organized on modern lines under State control from the initial stage of providing sufficient feeding material for the worm, rearing of the worm, collection of cocoons, payment of adequate price for the cocoons supplied to the State, production of high class reeled silk and its subsequent disposal in markets which in the beginning were mostly European markets. The State came in at every step and controlled the situation so as to bring about optimum conditions under which the industry could flourish at various stages.

It is well-known that the present supply of leaf is not very much above the existing requirements of cocoons required for the factory at Srinagar. The supply is slightly more in the case of the Jammu Province, but here one of the filatures is lying idle because of the slump in the market. I have, however, shown in my note of the 28th December 1932, the possibility of anticipated expansion in the production of primary produce as well as expansion in the filature industry provided there is sufficient protection to ensure adequate price for the finished material. This expansion will have to be undertaken on well-known lines of zoning with which people who have worked sugar factories are perfectly familiar. We shall have to set apart certain areas where land is available for plantation of mulberry trees for feeding one unit of raw silk producing factory and a systematic campaign under proper control will have to be carried on to produce and maintain sufficient number of mulberry trees in that zone, to induce agriculturists to rear worms and produce cocoons and sell them at the price settled by the control, to the particular factory assigned to that zone. The State proposes to plan out its future expansion on these lines so as to minimize the cost of transport of the raw material and also avoid any undesirable competition between different filatures situated in different zones. This is the essence of the control. It must have been noticed that this control is necessary.

(1) Because the ordinary agriculturist is not in a position to dispose of profitably his produce unless he is protected in the transaction of sale. He is cut off from the rest of the world and it is not easy for him to put his cocoons on the market in the best manner possible.

(2) It is not easy to import cocoons from outside because of the long lead from the railway terminus up to the centre of production in the Valley.

(3) Efficiency in the working of filatures is necessary in order to produce high class silk. Labour is to be trained to work in the filatures.

The State cannot contemplate with equanimity deterioration in the quality of the silk. It cannot allow its agriculturists to be exploited by capitalists who would not pay them adequate price for the cocoons. In order, therefore, to avoid anything of the nature of undesirable competition control is necessary. I am sure the word has no longer got that sinister significance that was attached to the term at a time when Manchester-tism with its unrestrained competition, was considered to be the last word on economic production. Europe has realized the folly of uncontrolled production. We therefore maintain that in the interests of production of high class silk in Kashmir control is necessary. Any enterprise that can fall in the system of control will be permitted to be established but it should be made clear that the enterprise that is not prepared to work under the control will be absolutely out of place in the economy of production of silk which has been necessitated by the topography of the Province. I think I have made my position thoroughly clear. Control is necessitated and the control will continue to exist. A private concern can take its place in the scheme of production approved by the control provided it falls in line with the policy of the control in the matter of obtaining supplies of cocoons, specially payment of price of cocoons. The scheme therefore leaves scope for State as well as individual enterprise to work according to the control. Unrestricted competition has been found fatal in the manufacture of sugar in the sugarcane growing areas and zoning has been resorted to there. In silk production the primary consideration would be the supply of leaf. Zoning will be inevitable with expansion of industry working to its full capacity.

As regards the disposal of the finished product as things stand at present, practically 90 per cent. will have to be exported abroad because in the Valley itself there is more demand for woollen than silk produce. There are few well run factories for the production of silk cloth and even this cloth is mainly exported abroad.

I need not reiterate the fact which must have been made clear that it is the Sericultural industry that is demanding protection and not the State for itself. As a matter of fact because the State has acted like a parent therefore the industry has survived so long in face of this death-dealing competition.

Note dated the 28th April, 1933, by the Director of Sericulture, Jammu and Kashmir.

(1) *Silk Protection Regulation.*—Four copies of the same are enclosed herewith.

(2) *Proportion of Local and Foreign Seed in 1931-32.*—The quantity distributed was as follows:—

Foreign Seed—8,007 ozs.

Kashmir Seed—16,230½ ozs.

(3) *Details of the cost of Imported Seed landed in Kashmir—*

Year.	F.o.b. price of seeds per ounce.	Transport charges from European Ports to Srinagar and Customs duty.
	Rs. A. P.	A. P.
1927-28	2 2 5	7 7
1928-29	2 4 8	5 10
1929-30	2 6 2	9 9
1930-31	1 14 8	9 8

(4) *Details of difference in Price of cocoons for Reeling and those for Reproduction in 1930-31.*—The information desired is given in the statement enclosed herewith in quadruplicate.

(5) *Proportion of first three races mentioned in Answer to Question 6 (B) of the Questionnaire to total amount of seed of Pure Races reared.*—The enclosed statement in quadruplicate gives the desired information.

(6) *Regarding error in estimate of Cocoon Production.*—The correct figure under the head "possible"/green maunds against Kashmir is 170,000 instead of 500,000. The error is due to 170,000 maunds having through an oversight been taken to be dry weight and having been multiplied by 3 unnecessarily.

The figure of 170,000 has been arrived at as follows:—

1. Total outturn of cocoons for last 6 years 1926-27 to 1931-32 (as per figures given in reply to question No. 3)—187,414 maunds (Green).
2. Total outturn of silk for last 6 years 1926-27 to 1931-32 (as per figures given in reply to question No. 3)—1,101,105 lbs.
3. Average outturn of silk per maund (Green) (this gives 'rendement of 4.65)—5.87 lbs.
4. Outturn of cocoons from 200,000 ozs. of seed at 34 seers per oz.—170,000 maunds (Green).
5. Outturn of silk from 170,000 maunds (Green) at 5.87 lbs. per maund—1,000,000 lbs.

(7) *Proportion of income from Silk-worm rearing to that from "other agricultural sources".*—As no economic survey has been held in the State so far no dependable data is available on the subject. However, in our opinion, the present day average income of a silk-worm rear from "other agricultural sources" may be taken to be about Rs. 75 per annum (the figure is subject to correction). Accordingly the proportion of a silk-worm rearer's income from silk-worm rearing to his income from other agricultural pursuits will work out to about 15 : 75 or 1 : 5.

(8) *Date of grant of Proprietary Rights to Zamindars in respect of fresh plantations of mulberry trees.*—The date in question is the year 1910.

(9) *Details of sales effected in 1931-32—*

Foreign sales—Nil.

Quantity of silk sold in India—Lbs. 153,758.

Total sale proceeds—Rs. 10,26,774.

Average price realized per lb.—Rs. 6-11-6.

(10) *"Weight of Basin refuse."*—The information asked for is given below:—

Year.	"Weight of Basin refuse" in pounds.
1927-28	4,404
1928-29	10,374
1929-30	9,399
1930-31	11,194
1931-32	11,957

(11) *"Baling charges" of Raw Silk.*—These work out to-day to Re. 1-14 per bale of 50 lbs. which is our normal size for the Indian Market.

The Kashmir Silk Protection Regulation of 1963.

Whereas it is expedient to provide a law against the unauthorized sale or possession of silk cocoons and seed and the unauthorized possession or receiving of raw Kashmir Silk, it is hereby enacted as follows:—

(1) This Regulation shall be called the Kashmir Silk Protection Regulation of 1963 and shall extend to the whole of the Jammu and Kashmir State.

(2) The words (1) Kirm Kash, (2) Silk Seed, (3) Silk cocoons and Raw Kashmir silk shall have the meanings ordinarily attached to these terms in the Jammu and Kashmir State.

Explanation.—Raw silk includes waste silk.

(3) Any Kirm Kash, employed by the Sericulture Department, Kashmir, who disposes of by sale or otherwise in favour of any person, except the Director of Sericulture, Kashmir, or such persons as may be appointed by the said Director in this behalf any silk cocoon reared by him and in his possession or any silk seed given to him for rearing by the said Director, or who wilfully neglects to deliver up the full quantity of silk cocoons reared by him; or to make over, if required to do so, any silk seed in his possession to the said Director of Sericulture or the persons appointed by him in this behalf shall, on conviction, be liable to imprisonment of either description for a term which may extend to three years or to fine or to both.

(4) Any person who, without any authority from the Director of Sericulture in this behalf, receives, in any manner whatsoever, any silk cocoon or silk seed from any Kirm Kash or is found in possession of any silk cocoon or seed otherwise than under the authority of the Director of Sericulture or other person or persons duly authorized by him in this behalf, shall be dealt with as if he had dishonestly received stolen property knowing or having reason to believe the same to be such, and shall be liable to be prosecuted under Section 311, Ranbir Dand Bidhi.

(5) Any person who receives or is found in possession of raw silk manufactured from cocoons reared under the authority of the Kashmir Sericulture Department otherwise than with the permission or under the authority of the Director or other person duly authorized by him in this behalf shall, on conviction, be liable to imprisonment of either description for a term which may extend to 3 years or to fine or to both.

(6) Offences under this Regulation shall be triable by the ordinary Criminal Courts of the State in accordance with the Criminal Law and procedure of the State in force at the time.

Statement showing cost of production of ordinary and Seed Cocoons during 1930-31.

Cocoons of Reproduction produced—834 maunds.

Total quantity of Cocoons produced (including Cocoons of reproduction)—29,150 maunds.

Extra expenditure incurred—Rs. 3,400.*

	Rs.
Total cost of expenditure	7,83,843
Less extra amount spent on Cocoons of reproduction	3,400
Balance	<u>7,79,943</u>

Cost per maund of Cocoons (leaving out extra expenditure on Cocoons of reproduction)—Rs. $7,79,943 \div 29,150 =$ Rs. 26-12-1.

Rs. A. P.

Cost of 834 maunds of Cocoons of reproduction—

$$\frac{779,943}{29,150} \times 834 = 22,314 \text{ 10 6}$$

Add extra expenditure incurred 3,400 0 0

Total 25,714 10 6

Cost of 1 maund of Cocoons of reproduction = $\frac{25,714}{834} =$ Rs. 30-13-3.

	Rs.
* Disinfection, incubation and supervision charges	2,830
Extra expenditure in shape of price of seed, etc.	570
Total	<u>3,400</u>

Statement showing details of Seed Reared.

Year.	QUANTITY OF SEED ARRANGED FOR DISTRIBUTION.					Grosses in ounces.	Grand Total in ounces.	Proportion of Cevennes, Pyrenees and Var races to other pure Yellow European races.
	White races in ounces.	Chinese Golden yellow in ozs.	Pure Yellow Euro- pean Races.		Total of European pure Yellow races in ounces.			
			Cevennes, Pyrenees and Var in ounces.	Other Yellow races in ozs.				
1929-30 .	4,214½	500	16,001½	18,869*	34,870½	7,953½	47,538½	46%
1930-31 .	5,179½	1,433½	7,060½	12,800½†	19,861	13,181½	39,655½	36%
1931-32 .	6,710½	185½	3,165	6,044½†	9,209½	8,185½	24,291	34%
1932-33 .	2,349½	1,189½	7,115½	5,561½‡	12,677	16,992½	33,208½	56%

* This represents seed of 15 different races.

† This represents seed of 9 different races.

‡ This represents seed of 12 different races.

‡‡ This represents seed of 12 different races.

Government of His Highness the Maharaja of Travancore.

(1) Letter No. D. Dis. 3269/32, dated the 11th January, 1933, from the Agent to the Governor General, Madras States.

In reply to your letter No. 558, dated the 5th December, 1932, I have the honour to inform you that there is no sericultural industry in the Travancore State. As desired I enclose six copies of a letter to that effect received from the Dewan of Travancore.

Enclosure.

Letter D. Dis. 24 of 33/Devpt., dated the 6th January, 1933, from the Dewan of Travancore, to the Agent to the Governor General, Madras States.

With reference to your letter No. P. 3269/32, dated the 10th December, 1932, I have the honour to inform you that there is no sericultural industry in the State. So the increasing imports of raw silk will not affect Travancore. Six spare copies of this letter are enclosed.

(2) Letter No. 67, dated the 24th January, 1933, from the Tariff Board, to the Agent to the Governor General, Madras States, Trivandrum.

With reference to your letter No. D. Dis. 3269/32, dated the 11th January, 1933, I am directed to say that in the Report on the Silk Industry in India by Mr. H. Maxwell-Lefroy, published in 1916, Travancore is mentioned as one of the States where experiments were carried out to determine if sericulture could be profitably practised there. It is further stated that with that end in view State grants were also made to the Salvation Army

settlement where work on mulberry cultivation of silk-worm rearing was reported as being extremely good and practical.

2. From the letter of the Dewan of Travancore dated 6th January, 1933, a copy of which was forwarded with your letter under reference, it appears that there is now no Sericultural industry in the State. I am therefore to request you kindly to obtain from the Darbar detailed information of the circumstances under which the Darbar had to give up the industry altogether resulting in its total extinction in the State.

(3) *Letter No. R. Dis. 3269/32, dated the 24th February, 1933, from the Agent to the Governor General, Madras States.*

SERICULTURAL INDUSTRY IN THE TRAVANCORE STATE.

Reference: Your letter No. 67, dated the 24th January, 1933.

In continuation of my letter No. P. 3—3269/32, dated the 11th February, 1932, I have the honour to enclose a copy of letter No. D. Dis. 353/33/Development, dated the 20th February, 1933, from the Dewan of Travancore.

Enclosure.

Letter No. D. Dis. 353/33/Deopt., dated the 20th February, 1933, from the Dewan of Travancore, to the Agent to the Governor General, Madras States.

With reference to your letter No. D. Dis. 3269/32, dated the 3rd/6th February, 1933, regarding sericultural industry, I have the honour to inform you that the Salvation Army conducted a school for a few years at Trivandrum for training boys in Sericulture and received a grant from this Government for the purpose. The boys after training were expected to start the industry in their homes. But very few of them did so. Later on the number of boys who sought admission to the school fell and the school had eventually to be closed.

The Department of Agriculture started a silk farm some years ago and conducted experiments in the rearing of silk-worms. Recently this farm has been closed down, because it has not been found possible to popularise the industry among the villagers. The climate of Travancore is not so favourable for the rearing of silk-worms as that of Mysore. Here, during the hot weather which lasts from March to June, the heat is so severe and the soil so dry that sufficient mulberry leaf could not be had for feeding the worms during this period and the worms themselves do not thrive on account of the heat. During the rainy weather which lasts from July to November the worms got diseased on account of the excessive dampness of the atmosphere. There is thus only a period of three months (December to February) when silk-worms can be reared in this country. The crop of cocoons that can be got from one acre of mulberry here is, therefore, much less than that which is generally obtained elsewhere. The land in which mulberry can be cultivated in Travancore is generally used for the cultivation of tapioca, banana and other dry crops, and those crops yield a larger income than mulberry. The silk industry has, therefore, not become popular and is not likely to do so in this country.

Government of His Highness the Maharaja of Indore State.

Letter No. 737, dated the 3rd February, 1933, from the Prime Minister, Indore State, Indore, to the Secretary to the Hon'ble the Agent to the Governor General in Central India, Indore.

With reference to your endorsement Nos. 8953-C. and 109-C., dated the 16th December, 1931, and 10th January, 1933, respectively, giving cover to

copies of letters Nos. 558 and 11, dated the 5th December, 1932, and 3rd January, 1933, respectively from the Secretary, Tariff Board, and requesting information regarding Sericultural Industry in the Indore State, I have the honour to state that a silk Demonstration Factory was started in the State in the year 1912 and worked for about 8 or 9 years as an experiment but was closed for financial reasons.

As regards the information (*vide* paragraph 5 of Secretary, Tariff Board's letter No. 558, dated the 5th December, 1932) regarding the extent to which handloom weavers in the State use local or imported silk and how far they can afford to pay the higher price which may be expected to result in case the duty is increased, I have to state that an increase in the duty on silk will obviously affect the Handloom Industry. I regret no statistical information is available. The quantity of raw silk imported by the merchants of Maheshwar is estimated at Rs. 2,500 a year.

No. 756-C., dated Central India Agency, Indore, the 11th January, 1933.

Copy forwarded to the Secretary, Tariff Board, Council Hall, Poona, for information with reference to the correspondence resting with his letter No. 11, dated the 3rd January, 1933.

Government of His Highness the Maharaja of Gwalior.

- (1) *Letter No. 30-M.-III/163-32 of 1933, dated the 12th January, 1933, from the Resident at Gwalior, Gwalior Residency, to the Secretary, Tariff Board.*

With reference to the correspondence ending with your letter No. 11, dated the 3rd January, 1933, I have the honour to inform you on the authority of a communication received from the Gwalior Darbar that as no sericultural industry is carried on in the State the required information cannot be supplied.

2. In the circumstances the spare copies of questionnaire received with your letter under reference are returned herewith.

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- (2) *Letter No. 66, dated the 24th January, 1933, from the Tariff Board, to the Resident at Gwalior, Gwalior.*

With reference to your letter No. 30-M.-III/163-32, dated the 12th January, 1933, I am directed to say that in the Report on the Silk Industry in India by Mr. H. Maxwell-Lefroy, published in 1916, Gwalior is mentioned as one of the States where experiments were carried out to determine if sericulture could be profitably practised there. The trial made in Gwalior was also stated to be one of the best yet made in India in the thoroughness and efficiency of details.

2. From your letter under reference it appears that no sericultural industry is now carried on in the State. I am therefore to request you kindly to obtain from the Darbar detailed information of the circumstances under which the Darbar had to give up the industry altogether resulting in its total extinction in the State.

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- (3) *Letter No. 108-M-III of 1933, dated the 13th February, 1933, from the Resident at Gwalior.*

With reference to your letter No. 66, dated the 24th January, 1933, I have the honour to send herewith a short note on sericulture industry prepared by the Administrative Officer, Forests, Gwalior.

2. The note will show that there is no sericulture industry in Gwalior at present.

Enclosure.**A SHORT NOTE ON SERICULTURE INDUSTRY EXPERIMENTS IN THE STATE.**

A scheme for organising Sericulture Industry in the State was submitted to His Late Highness by Rai Bahadur Lala Har Swarup in 1914, the then Conservator of Forests. It was pointed out in the scheme that as there was enough number of required trees (Mulberry) in villages the scheme would be a successful one. The Darbar sanctioned the scheme and a sum of Rs. 35,000 was given for experiments on the scheme.

An expert Sericulture officer was called from Kashmir State in 1914 to work the scheme through. The experimental work was done by this expert officer under the direct supervision of Lala Har Swarup; and experiments on growing mulberry trees, and of rearing cocoons were started at Lashkar (Janaktal), Shajapur and Ujjain. The initial experiments carried on by the Department were a success.

Later on, in 1916 another revised scheme was submitted by Rai Bahadur Lala Har Swarup to the Darbar. This scheme was based on Mr. H. M. Lefroys' suggestions, which were to this effect, that the sericulture scheme should not be tried as a Departmental scheme, but should be tried as a cottage industry scheme.

But on being tried on a cottage industry basis, the scheme failed, firstly and chiefly because there was not enough number of mulberry trees in the villages to work the industry with; and secondly because at some places the cocoons could not survive the heat. And consequently the experiments of making Sericulture a cottage industry, failed, and the entire idea of sericulture industry was given up, and the work was stopped.

Again in 1918 at the time of Pt. Sunerlal Sahib Pathak, another scheme on sericulture industry was submitted to the Darbar for their approval and sanction, but this scheme was never sanctioned.

Since that time the Forest Department has not taken up any experiments on sericulture industry, and so far as is known there is no such industry going at the present time in the State.

Government of His Highness the Maharaja of Cochin.

Letter No. P. 3-3269/32, dated the 11th February, 1933, from the Agent to the Governor General, Madras States, Trivandrum.

SERICULTURAL INDUSTRY—INDIGENOUS—MENACE CAUSED TO THE—ENQUIRY INTO.

With reference to your letter No. 11, dated the 3rd January, 1933, I have the honour to inform you that the Dewan of Cochin informs me that the sericultural industry is only just beginning to develop in the Cochin State and that it is therefore not possible to give detailed replies to the several points raised in the questionnaire prepared by the Board. Necessary information has however been given to persons in Cochin interested in the industry to send their replies, if any, to you direct.

Government of His Exalted Highness the Nizam of Hyderabad.

Letter No. 1218-P., dated the 18th February, 1933, from the Hon'ble the Resident at Hyderabad.

Subject:—SERICULTURAL INDUSTRY IN THE HYDERABAD STATE.

With reference to the correspondence ending with your letter No. 11, dated the 3rd January, 1933, on the above subject, I am directed to forward herewith a copy of letter No. 141-P., dated the 30th January, 1933 (with six spare copies), from the Secretary to His Exalted Highness the Nizam's Government in the Commerce and Industry Department, on the above subject.

Copy of letter, 114-P., from the Director General and Secretary to Government, Department of Commerce and Industries, Hyderabad, to the Secretary to Government, Political Department, His Exalted Highness the Nizam's Government, Hyderabad.

Subject:—INFORMATION REQUIRED BY THE TARIFF BOARD REGARDING THE SERICULTURAL INDUSTRY IN THE HYDERABAD STATE.

With reference to your letter No. 14275, dated the 18th December, 1932, enclosing a copy of a letter from the Tariff Board received through the Residency regarding the enquiry which the Tariff Board are now making into the position of the indigenous sericultural industry, I am directed to reply as follows:—

2. There is practically no sericulture in Hyderabad State. A little tasar silk is produced, but the amount is negligible and it could not form any reason for imposing a duty on imported raw silk.

3. The State however is gravely concerned by the proposal to put an import duty on raw silk or raw yarn. There is an important handloom industry, which produces silk piecegoods and mixed piecegoods of silk and cotton. No figures showing the imports of raw silk, silk yarn and silk piecegoods separately are available before 1340 Fash, i.e., the period from October 6th, 1930, to October 5th, 1931. The figures for this year and the year succeeding are given in the enclosed statement. Only figures for value are available and not for quantities but it appears from the total imports under the head "silk" (which previously included raw silk, silk yarn and piecegoods) for former years that there has been a considerable falling off in imports during the last two years. It is clear from these figures that there is a substantial industry dependent on the use of raw silk and silk yarn imported from outside the State. This industry does not suffer to a great extent from direct competition from piecegoods imported from outside British India, because the piecegoods woven mainly consist of *saris*, but the indirect competition due to the import of foreign woven silk goods is always felt. Heavy silk *saris*, either figured or adorned with gold lace are less and less worn by the people, who are now turning their attention to new styles of clothing and are attracted by all kinds of new types of cloth. When new and attractive designs in imported cloth are available at very cheap rates, the indigenous silk weaving industry is naturally severely affected. If, therefore, a heavy duty is placed on imported raw silk and silk yarn without a proportionate increase of duty on foreign piecegoods, the effect on the indigenous handloom industry will be disastrous. If, therefore, the Tariff Board finds that some protection, whether temporary or otherwise, is required for Indian sericulture, then the Hyderabad State would strongly urge that it is essential for a proportionate increase of duty to be levied on foreign piecegoods. This is a matter of primary importance to the Hyderabad silk weaving industry.

4. A great deal of stress has been laid in the Press on the large increase on imports of raw silk and silk yarn. An examination of the import figures however up till the end of March, 1932, will show that during the last six years imports of raw silk from outside India have actually fallen off and not increased. Imports in the year 1931-32 were only 1,562,985 lbs. as against 1,783,260 lbs. in 1926-27. In the intervening years there was a slight increase, but a falling off took place during 1930-31 and 1931-32. In the case of silk yarn, noils and warps there was an increase in imports during the years 1926-27 up till 1928-29, when the total imports amounted to 2,046,760 lbs. After that there was a falling off and during the year 1931-32 the imports were only 1,710,366 lbs. There has been a great increase during six years in the imports of goods made of silk mixed with other materials which have increased from 2,136,217 lbs. to 5,089,648 but the imports of pure silk goods have remained practically steady during these years. In the year 1926-27 the imports were 18,912,091 lbs. During the next three years there was an increase culminating in the year 1929-30 when imports stood at 22,924,625 lbs. but during the last 2 years, there has been a set back and in

1931-32 the imports were only 19,924,223 lbs. It is only during the last six months that there has been such a marked increase in the import of pure silk whether raw or in the form of silk yarn or piecegoods. This is obviously due to the depreciation of foreign currencies and it should be noted that the increase in the imports of piecegoods is just as marked as in the case of raw silk and silk yarn. If, therefore any assistance is to be given to Indian Sericulture in the form of additional tariffs, it is clear that this should be only temporary and designed to meet the depreciation of foreign currencies. When these have regained their normal state or exchange has become fixed at a lower level, there would probably be no special case for further assistance to the sericultural industry.

5. Much emphasis has been laid on the fall in the price of Indian silk, but up to the time that the depreciation in exchange became acute, the falling off was not out of proportion to the decrease in the world price of almost every commodity. It is stated that the average price per lb. of unreeled Mysore silk declined from Rs. 10-7 per lb. in 1927 to Rs. 6 in 1931 and Rs. 5-10 per lb. in 1932. There has thus not yet been a fall of more than 50 per cent. and a fall more or less proportionate to this has occurred in the price of every food grain and raw material since 1927. Prices have now reached a level which are practically the same as that prevailing before the war, and it would appear to be as necessary for the sericultural industry to adapt itself generally to world wide conditions as it is for those industries which are engaged in the production of other raw materials.

6. To sum up, the Hyderabad Government is not opposed to any measures taken for the protection of the sericultural industry provided that (a) proportionate duties are levied on imported piecegoods and (b) the protection given is only temporary and designed to meet the depreciation in exchange.

Enclosure.

Statement showing imports of silk into Hyderabad State.

	1340 F. B. G. Rupees.	1341 F. B. G. Rupees.
Silk raw, foreign	3,55,393	5,66,554
Silk raw, Indian	2,65,825	1,63,842
Silk yarn, foreign	1,82,004	1,99,333
Silk yarn, Indian	20,066	17,144
Silk piecegoods and other manu- factures thereof	10,35,428	15,65,342

Letter No. 557, dated the 5th December, 1932, from the Tariff Board, to all Local Governments.

I am directed to invite the attention of the Government of _____ to the Government of India, Commerce Department's Resolution No. 607-T. (1), dated the 3rd December, 1932, in which the Tariff Board has been directed to enquire into the grave menace caused to the indigenous sericultural industry by the increasing imports of raw silk.

2. The Trade Returns show that from March, 1932, onwards raw silk has been imported in quantities greatly in excess of those of previous months. The imports in the first 7 months of 1932-33 are greater than those for the whole years 1928-29, 1930-31 and 1931-32. At the same time the average value of the imports in 1932-33 is 37 per cent. lower than that

of the imports in 1927-28. The figures for the last five years are as follows:—

IMPORTS OF RAW SILK.

Year.	Quantity. Million lbs.	Value Rs. lakhs.	Average value Rs. per lb.
1927-28	2.36	145.32	6.17
1928-29	2.13	123.57	5.80
1929-30	2.18	123.13	5.66
1930-31	1.94	88.17	4.55
1931-32	1.56	62.27	3.98
1932-33 (7 months)	2.14	81.95	3.82

3. I am to request in the first place that you will be good enough to inform the Board whether the sericultural industry is carried on in the province of _____ and, if it is, to let the Board have such information about it as is at your disposal, with particular reference to the following points:—

- (1) The number of people engaged in the industry and their average earnings;
- (2) the manner in which the industry is organised with reference to management, finance and marketing;
- (3) the kind of silkworms reared and whether from local or imported seed;
- (4) the precise nature of the operations involved in the case of each kind of silkworm reared and, in the case of those which live on mulberry leaves, the method by which the mulberry is cultivated;
- (5) the number of broods produced in a year and the average number of cocoons produced per oz. of seed;
- (6) the proportion of cocoons reeled as compared with those kept for producing moths;
- (7) the average cost of producing cocoons:—
 - (a) cost of seed,
 - (b) cost of food for worms (including for domesticated worms the cost of mulberry cultivation,
 - (c) cost of appliances,
 - (d) cost of labour,
 - (e) other expenses;
- (8) the average price obtained for cocoons sold, or, if the silk is reeled at home, the average yield of silk obtained and its value;
- (9) the cost of reeling silk by hand or by machine, and the extent to which machinery is used for this purpose;
- (10) the total annual production of raw silk and the corresponding quality of waste produced and its average value;
- (11) the quantity of silk and waste used locally and the quantity sold for use in other parts of the country or for export; and the manner in which it is marketed.

4. I am further to request that if the Sericultural industry is carried on in the province of _____ the Government will be good enough to favour the Tariff Board with their views on the following two questions:—

- (a) to what extent the industry has been affected by the increased imports of raw silk either by way of loss of orders or by the depression of the price obtainable to an uneconomic level;
- (b) whether the industry is of such economic importance to the province that it should be protected either by raising the duty on imported raw silk or by other measures.

5. The terms of reference required the Board to consider the effect of its proposals upon the handloom weaver. To enable the Board to form an opinion upon this matter, I am to request information regarding the extent to which handloom weavers in your province use local or imported silk, and how far they can afford to pay the higher price which may be expected to result in case the duty is increased.

6. I am to request that if possible a reply (with six spare copies) to this letter may reach the Board's office by the middle of January. In case it may not be possible for the Government of _____ to collect all the particulars required by that date, it would be convenient if they would send such information as is then available, and send further particulars in a subsequent communication.

Government of Madras.

Letter No. 3847-III/32-2, dated the 14th January, 1933.

I am directed to forward copy of a note prepared by the Director of Industries furnishing information on the several points raised in paragraph 3 of the Traiff Board's letter No. 557, dated the 5th December, 1932.

2. With reference to the points raised in paragraph 4 of your letter, I am to state that the fact that the price of imported silk has fallen from Rs. 6-17 per lb. in 1927-28 to Rs. 3-82, while the cost of producing a lb. of raw silk in Kollegal is Rs. 5-12 for country-reeled silk and Rs. 8 for filature silk, shows that foreign competition has depressed prices to an uneconomic level. In 1925 the average earnings of a family employed in silk reeling were Rs. 225 per annum. Now they are Rs. 60 per annum. The conclusion that the industry has suffered is irresistible, and is further corroborated by the fact that the area under mulberry cultivation has contracted from 15,387 acres in 1925 to about 6,000 acres in 1932.

3. The economic importance of sericulture in this Presidency is unquestionable. It is an almost ideal subsidiary industrial occupation for the agriculturist and provides work for about 33,000 people in Kollegal taluk alone, besides a large number of weavers elsewhere. Recent experience shows that there is scope for the development of sericulture in several parts of the Presidency. As there is a large home market for silk and as it is one of the few subsidiary industries which can be easily introduced and for which suitable conditions exist in this Presidency, it is essential that it should be protected adequately. This Government, therefore recommended to the Government of India in November 1932 that an additional duty of 35 per cent. be imposed on foreign imported silk, both raw and manufactured. The Director of Industries now brings to their notice that there has been a further fall in the price of a certain brand of China silk to about Rs. 2-0-6 per pound and recommends that, in view of the violent fluctuations both in the prices of silk and the Chinese exchange, a specific duty, slightly higher than the difference between the value of the local and the imported silk, should be imposed, and that the Governor General in Council should be empowered to vary it when necessary. This suggestion is supported by the analogy of the provision in the Sugar Industry Protection Act, 1932, and appears to the Government of Madras to be a reasonable proposal.

4. As regards the point raised in paragraph 5 of your letter, *viz.*, the extent to which handloom weavers in this Province use local or imported silk and how far they can afford to pay the higher price which may be expected to result in case the duty is increased, I am to state that the handloom weavers in this Presidency use almost the entire quantity of silk produced in this Province, about half the production of Mysore and 6½ to 8 lakhs of pounds of raw silk directly imported from China and Japan, besides 2-5 lakhs of pounds of Chinese silk imported by rail from Bombay, the total quantity of raw silk consumed here being 17 lakhs of pounds. Exports of silk from Madras are negligible. So far as the production and sale of silk cloths on handlooms is concerned, practically the entire

trade is in the hands of sowcars who give raw silk and take back the finished cloth, paying wages to the weaver, who consequently is himself little affected by any increase in duty or consequent increase in the price of imported silk. There is little doubt that the silk-goods merchant will contrive to throw on the consumer the greater part of the increased price, which will indeed be justified by the superior durability of cloth made from local silk. Contraction in the trade in handloom products need not therefore be apprehended.

Enclosure.

NOTE BY THE DIRECTOR OF INDUSTRIES, MADRAS, FURNISHING INFORMATION REQUIRED IN PARAGRAPH 3 OF THE TARIFF BOARD'S LETTER No. 557, DATED THE 5TH DECEMBER, 1932.

3. (1) *The number of people engaged in the industry and their average earnings.*—The sericulture industry forms an important subsidiary industry in the Kollegal Taluk of the Coimbatore District. The number of persons engaged is about 33,000. The average earnings of sericultural family consisting of two adults and two children above 10, was about Rs. 225 per annum in 1925 as against Rs. 60 per annum in 1932. The wages of a reeler in 1925 was As. 12 per diem as against As. 7-6 in 1932. Attempts made by the Department to introduce sericulture in Hosur (Salem District), Palmaner (Chittoor District), Vadakangulam (Tinnevely District), Ellore (East Godavari District), Nuzvid (Kistna District), Melrosapuram (Chingleput District), and in Madras have met with a fair measure of success.

(2) *The manner in which the industry is organised with reference to management, finance and marketing.*—The mulberry cultivator who is generally an agriculturist, ploughs a portion of his land with his cattle, fertilises it with a portion of the manure of his cattle and plants it with mulberry cuttings procured generally free of cost either from his own lands or those of his neighbours. He utilises the labour of the members of his family, his farm servants, if any, and himself for raising the mulberry crop and rearing the silk-worms. The mulberry crop takes about 5 months before it is ready for the picking of leaves for the first time. Thereafter leaves are picked once in 7 weeks in the case of dry lands. The sericulturist does not borrow money either for the mulberry crop or rearing silk worms. Occasionally he sells the leaves, if he has a surplus, to rearers who need them.

As it has been found in actual practice that seed cocoons produced outside the Kollegal Taluk have been generally giving better results, seed cocoons produced in Mysore State are sold to Kollegal rearers. As seed cocoons sold by private vendors are not tested, Government have had to open farms in other parts of the Presidency for producing cocoons for supplying disease free seed to rearers in the Kollegal area. The loss estimated to a rearer who does not use disease-free seed is on an average two out of seven crops a year. The total demand for layings in the Kollegal area was about 75 lakhs of disease-free layings in 1925 as against 30 lakhs in 1932; but owing to the restricted scope of the departmental activities for supplying disease-free layings, the relief afforded to the rearers is not in any way adequate.

The silk-worm rearer is generally the mulberry cultivator. His capital is his appliances, the labour of the members of his family and servants and himself. He generally purchases seed cocoons on credit and pays back after he sells his cocoons. He sells the cocoons either to the village reelers or their brokers. Some village reeling establishments engage brokers who get generally two per cent. of the sale price as commission paid partly by the rearers and partly by the reelers. The defective method of weighing with a rod enables the broker to make some slight additional income at the expense of the rearer.

The stock in trade of the silk reeler who is not generally a capitalist consists of silk reeling machines consisting of basins made of mud pots and reels made of wood. He purchases cocoons on credit and gets the cocoons reeled, sells the raw silk and silk waste to Kollegal silk merchants and then pays the rearers.

Raw silk is purchased from the reelers by silk merchants at Kollegal on advance orders received from traders in silk weaving centres. These Kollegal merchants have no direct dealings with the handloom weavers. Large stocks of silk are never held by them because of the uncertainty of the market owing to the prices for the indigenous silk being determined by the prices ruling for China silks. None of the silk merchants of Kollegal has any overdraft from banks. The silk reeler brings silk to the Kollegal merchant for sale and is paid generally in cash, but there are occasions when the reeler has to wait for the settlement of his accounts for a week. The reeler, before he sells his silk goes round with sample skeins to all the silk merchants in Kollegal town and ascertains the market value. The silk is sold by maund weight which is 40 seers or 1,000 tolas.

(3) *The kind of silk-worms reared and whether from local or imported seed.*—The silk-worm generally reared in the Madras Presidency is Bombyx Meriodionlis, the multivoltine breed of the Mysore variety, which feeds on bush mulberry leaves. The cycle of a multivoltine variety is about 7 weeks from seed to seed. The length of silk filament contained in a cocoon of the Mysore multivoltine variety is about 300 yards. To improve the quality and quantity of silk hybridisation work is carried on at the Government silk Farm at Coonoor and Hosur.

(4) *The precise nature of the operations involved in the case of each kind of silkworm rearer and, in the case of those which live on mulberry leaves, the method by which the mulberry is cultivated.*—When the mulberry leaves are ready for picking, the rearer buys what are called "seed cocoons" and places them in a bamboo tray kept on a bamboo rack or machan inside a well ventilated room. Moths, generally half male and half female come out of the cocoons ten days after they start spinning. As soon as they emerge, each male moth pairs off with a female and after eight hours copulation, the female moth is separated from the male and kept in a separate bamboo tray where it lays 250 to 300 eggs or seed. The eggs are safely kept in a tray inside the rack where they begin to hatch in about ten days after laying. The larvæ are gently brushed with a feather to another tray where they are fed with tender mulberry leaves chopped into fine pieces. Fresh leaves brought from the garden are generally used for each feeding. The actual hatching period is about two days and the worms of each day are kept separately.

The table below gives an idea of the intervals between moultings, number of feeds and quality of leaves with which the worms are fed:—

Period.	No. of days.	No. of feeds in 24 hours.	Moulting period Hours.	Quality of leaves.
1	7	8	36	Tender leaves finely chopped.
2	4	7	24	Tender and half mature leaves chopped a little coarser.
3	5	6	24	Half mature leaves chopped much coarser.
4	6	5	36	75 per cent mature leaves chopped each leaf into three parts.
5	8	4	Spinning.	Mature leaves.

The method of cultivation of mulberry is as follows:—

Mulberry is generally raised by planting cuttings. The preliminary operations are ploughing, hoeing, weeding and manuring. The cuttings which are 8 to 9 inches in length are planted 2½ feet apart. The yield of leaves per acre of dry land is about 2,100 lbs. per annum.

(5) *The number of broods produced in a year and the average number of cocoons produced per oz. of seed.*—The number of successful crops raised per annum is on an average 5 but if there is a good seasonal rainfall which helps the growth of mulberry, as many as seven crops can be raised. The average number of cocoons produced per ounce of seed is somewhat difficult to calculate. The seed is reckoned for this variety not in ounces but in layings. On an average there are 500 seed cocoons for a pound. From 500 seed cocoons will emerge about 250 female moths and making allowance for failure to yield layings, there will be at least 150 disease free layings of seed yielding about 63 lbs. of cocoons.

(6) *The proportion of cocoons reeled as compared with those kept for producing moths.*—As stated already Kollegal rearers do not reserve any cocoons for seed purposes. As the function of the Government Farms is to raise seed, all the cocoons raised there are converted into seed. In case a rearer produces his own seed he should retain $\frac{1}{3}$ part of his crop.

(7) *The average cost of producing cocoons.*—The cost of raising one acre of mulberry plantation and rearing silk-worms is as follows:—

	Rs. A.
(a) <i>Cost of seed.</i> —Seed 500 layings at 12 annas per 100	3 12
(b) <i>Cost of food for worms (including for domesticated worms the cost of mulberry cultivation)</i> —	
Taxes	1 4
Ploughing—4 times	6 0
10 cart-loads of manure at As. 8	5 0
Spreading manure	0 8
Planting	1 8
Additional expenses for picking leaves at Rs. 2 per rearing	10 0
(c) <i>Expenditure on account of Appliances</i> —	
35 Chandrakis hire at 1 anna each	2 3
Depreciation on rearing appliances (cost of appliances is given below	1 0
(d) <i>Cost of labour</i> —	
Cost of labour, 125 units, at As. 4 per day of 8 hours	31 4
(e) <i>Other expenses.</i> —Oil, etc.	1 13
	<hr/> 64 4 <hr/>

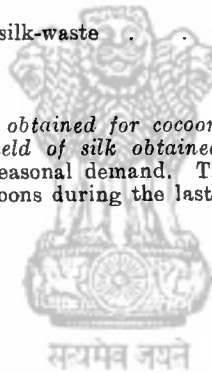
Cost of rearing appliances usually used—

(1) Stand (wooden with bamboo cross bars)	5 0
(2) 20 trays	5 0
(3) One knife	0 12
(4) Ant wells	1 4
(5) Chandrikis, 20	10 0
	<hr/> 22 0 <hr/>

The cultivator rearer gets 210 lbs. of cocoons which should give him a return of Rs. 64-4 if he is to recoup the bare expenses of cultivation. This leaves out of account the return to the rearer for his labour and at least a sum of Rs. 10 should be added to this cost if he is to be induced to take to Sericulture as that represents the net return to a cultivator if he raises ragi on similar land. This works out to As. 5-9 per lb. of cocoon. The cost of producing 1 lb. of reeled silk in Kollegal is Rs. 5-12 as worked out below:—

	Rs.	A.	P.
(1) Cost of 14 lbs. of cocoons (14 lbs. of cocoons =1 lb. of reeled silk) at As. 5-9	5	0	6
(2) Fuel	0	4	0
(3) Water	0	1	0
(4) Rent for building	0	0	3
(5) Turner	0	1	6
(6) Depreciation on machinery	0	0	3
(7) Transport of cocoons	0	1	6
(8) Labour for reeling	0	5	0
	<hr/>		
Total	5	14	0
Less sale of silk-waste	0	2	0
	<hr/>		
Net cost	5	12	0

(8) *The average price obtained for cocoons sold, or, if the silk is reeled at home, the average yield of silk obtained and its value.*—The price of cocoons varies with the seasonal demand. The ruling prices at Kollegal for a maund of 25 lbs. of cocoons during the last 8 years are furnished below:—



Average price of cocoons.

	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
January	Rs.	Rs. 20	Rs. 18-2	Rs. ..	Rs. ..	Rs. A. P. 12 4 2	Rs. A. P. 8 10 0	Rs. A. P. 10 12 1
February	Rs.	16-8	Rs. ..	Rs. ..	15 to 16	12 14 9	8 8 0	10 12 1
March	16 to 17	15-12 to 16	Rs. ..	Rs. ..	13	12 12 6	8 9 11	10 12 1
April	Rs.	18 to 19	Rs. ..	Rs. ..	12 to 13	12 12 6	9 0 0	10 12 1
May	22 to 24	20 to 20-8	Rs. ..	Rs. ..	12 to 13	12 1 6	8 8 3	10 12 1
June	24	20	17	Rs. ..	7-8 to 8	12 4 0	7 0 0	10 12 1
July	19	19-8 to 21	Rs. ..	19-8 to 20	11 to 12	9 12 0	7 11 10	8 0 0
August	10 to 19-8	18 to 17	14-8	Rs. ..	13 to 14	8 10 0	7 11 10	8 0 0
September	Rs.	15 to 16	Rs. ..	Rs. ..	10 to 10-8	..	7 11 10	8 0 0
October	15 to 16	16	Rs. ..	16-8 to 17	10 to 13-7	..	7 11 10	8 0 0
November	Rs.	13 to 14	Rs. ..	16	10 to 13-7	..	7 11 10	8 0 0
December	Rs.	20 to 22	15-8	11 Rainy cocoons	12 to 15-2	..	7 11 10	8 0 0

The yield of silk from 14 lbs. of cocoons is 1 lb. in a country reeling machine. The value of Kollegal silk fluctuates with the ruling price of imported China silk. The ruling prices of Kollegal silk for the last 7 years are given below:—

The average wholesale prices of Kollegal country silk per maund of 1,000 tolas (or 25 lbs.).

	1926.	1927.	1928.	1929.	1930.	1931.	1932.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
January	200	210	210	205	180	145	210
February	210	250	180	215	176	125	180
March	205	235	170	190	180	125	180
April	240	230	170	175	185	125	160
May	255	240	175	170	190	120	150
June	270	245	180	160	170	120	120
July	210	200	185	170	140	110	120
August	200	180	175	175	140	105	120
September	205	215	165	175	120	105	120
October	190	195	170	170	105	120	120
November	175	200	170	165	105	220	120
December	195	220	175	180	150	235	130
Average for the year	213	219	178	179	150	155	145
Average price per lb.	8-8	8-12	7-2	7-2	6	6-3	5-13

(9) *The cost of reeling silk by hand or by machine, and the extent to which machinery is used for this purpose.*—In Kollegal, reeling of silk is carried on generally with a crude type of machine costing about Rs. 5. The cost of reeling 1 pound of silk on the country-reeling machine would work out as follows:—

Ratio of silk to cocoons 1:14.

	Rs.	A.	P.
Price of 14 lbs. of cocoons at As. $\frac{1}{2}$ per lb.	5	0	6
Fuel	0	4	0
Water	0	1	0
Rent for building	0	0	3
Turner	0	1	6
Depreciation on machine	0	0	3
Transport of cocoons	0	1	6
Reelers wage	0	5	0
	5	14	0
Less sale of $\frac{1}{4}$ lb. silk-waste at As. 4 per lb.	0	2	0
Net cost of production of 1 lb. of silk	5	12	0

Power filature machinery is employed by only one factory started at Mudigundam near Kollegal.

The cost of production of silk at this factory is reported to be Rs. 8 per lb.

(10) *The total annual production of raw silk and the corresponding quality of waste produced and its average value.*—The annual production of

raw silk in this Presidency since 1925 will be seen from the statement below:—

Year.	Acreage under mulberry.	Quantity of silk produced.	Quantity of silk waste produced.	Average price of silk.
		Lbs.	Lbs.	Rs. A. P.
1925	15,387	230,805	115,402½	8 8 0
1926	13,476	202,140	101,070	8 8 0
1927	10,964	164,460	82,230	8 12 0
1928	10,214	153,210	76,605	7 2 0
1929	9,753	146,295	73,147½	7 2 0
1930	9,701	145,515	72,757½	6 0 0
1931	7,277	109,155	54,577½	6 3 0
1932	6,000	90,000	45,000	5 13 0

During the years 1926 to 1931, the wholesale price of indigenous raw silk per maund of 25 lbs. ranged between Rs. 213 and Rs. 155. The maximum price of Rs. 270 was realised in June 1926, while the lowest price Rs. 105 prevailed during the months of August and September, 1931. The average wholesale price of raw silk during the year 1932 was Rs. 145.

The average price of waste silk has come down from Rs. 18 per maund of 25 lbs. in 1925 to Rs. 6-4 per maund in 1932.

(11) *The quantity of silk and waste used locally and the quantity sold for use in other parts of the country or for export; and the manner in which it is marketed.*—Almost the entire quantity of raw silk produced in this Province, about half the output of silk from Mysore, and 6½ to 8 lakhs of lbs. of raw silk directly imported from China and Japan and about 2-5 lakhs of lbs. of Chinese silk imported by rail from Bombay is used by the weavers of this Presidency. The entire output of waste silk which varies with the quantity of raw silk produced is exported from the country. The total quantity of raw silk consumed is about 17 lakhs of lbs. The exports of silk from this Presidency are negligible.

Government of the United Provinces.

(1) *Letter No. 25-I., dated the 14th January, 1933.*

With reference to your letter No. 557, dated December 5, 1932, I am directed to say that silk yarn is not manufactured in the United Provinces except to a negligible extent.

2. A note about the probable effect on handloom weavers of an additional duty on raw silk will be sent shortly.

(2) *Letter No. 60/I-IXVIII-478, dated the 1st February, 1933.*

In continuation of my letter No. 25-I, dated January 14, 1933, I am directed to say that, although silk yarn is not manufactured in these provinces (save to an almost negligible extent in Murzapur) silk weaving is an important industry in the province. The largest centre is Benares which consumes every year 40 lacs worth of reeled silk in addition to 30 lacs worth of spun and noil silk yarn. The Indian sericulture industry does not at present supply spuns or noils. Formerly the greater part of the reeled yarn used to come from Bengal; later, foreign yarn (Chinese

and Japanese) appeared in the market, along with yarn from Mysore and Kashmir. Kashmir yarn was preferred for warp and normally formed about 20 per cent. of the total consumption of raw silks at Benares. Now however Chinese and Japanese reeled yarns have ousted other Indian made yarns, on account of their cheapness and superior twisting properties with the result that they supply 95 per cent. of the requirements of Benares.

2. It is reported that in spite of the lower prices of the foreign yarns used, the economic condition of the weavers has not improved; the sales of their finished goods have decreased. This is due partly to the economic depression and partly to the fact that foreign silk goods have been coming in and selling at rates with which the local industry cannot compete. It is also said that to some extent the use of foreign yarns has been harmful to the weavers, as they cannot invoke the prevailing sentiment in favour of the use of Swadeshi goods.

3. The effect of an enhancement of duty on the silk weaving industry is difficult to gauge without having some idea of the extent of the duty it is proposed to impose. Broadly speaking, however, it may be taken for granted that the imposition of a duty on foreign raw silk (untreated filaments) would raise the price of the goods manufactured; will the market, in its present depressed state be able to bear the increased price or would sale decrease? To some extent the strength of the sentiment in favour of textiles made from indigenous yarns might help sales, but on the whole the probability is that the sales of textiles will go down and the weavers will therefore suffer. There is also a likelihood that if the price of silk goods goes up, artificial silk fabrics will take their place to a larger extent.

4. If it is decided to impose an additional duty on raw silk, it would be essential to effect a corresponding increase in the duty on foreign silk fabrics also, otherwise foreign made textiles would drive Indian made goods out the market, and the local weavers would be ruined.

Government of the Punjab.

Letter No. 1542-I. & L., dated the 16th January, 1933.

I am directed by the Governor-in-Council to refer to your letter No. 557, dated the 5th December, 1932, on the subject noted above, and to forward for the information of the Tariff Board, a copy, with 6 spare copies of a letter No. 287/68—64, dated the 9th January, 1933, from the Director of Agriculture, Punjab, containing the necessary information asked for in paragraphs 2 and 3 of your letter. With regard to paragraphs 4 and 5 of your letter, I am to enclose a copy, with 6 spare copies, of a letter No. 320, dated the 10th January, 1933, from the Director of Industries, Punjab, and to say that the Governor-in-Council concurs in the views expressed therein.

Enclosure No. 1.

No. 287/68-64.

From

H. R. Stewart, Esq., I.A.S.,
Director of Agriculture, Punjab,

To

The Secretary
to Government, Punjab,
Finance Department, Lahore.

Dated Lahore, the 9th January, 1933.

Sir,

With reference to your endorsement No. 39452-I. & L., dated the 16th December, 1932, I have the honour to reply seriatim to the questions raised

in letter No. 557, dated the 5th December, 1932, from the Secretary, Tariff Board, Bombay, to your address, a copy of which was forwarded with your endorsement under reply:—

(1) The information supplied by the Entomologist to Government, Punjab, shows that the number of people, including school teachers, engaged in the sericultural industry between 1928 and 1932 was as follows:—

1928	1,195
1929	1,040
1930	1,238
1931	454
1932	147

The average earnings are estimated at from Rs. 25 to Rs. 30 per rearer. Some years ago, when the price of silk cocoons was much higher than it is at present, the earnings were more than double these amounts.

(2) The Agricultural Department has a special staff for the supervision of sericultural operations in the Punjab. This staff prepares a list of intending rearers in various localities suitable to the industry and on the basis of their estimates the Department obtains the necessary quantity of silk seed from France each year. This seed is distributed amongst silk-worm rearers in February annually. Up to two or three years ago this seed was issued on credit to rearers and the price was recovered at the time of the annual Silk Cotton Exhibition which the Department held at Gurdaspur. This exhibition was organized in order to bring rearers and buyers in contact and find a ready market for the sale of the cocoons. This practice resulted in an accumulation of arrears on account of the cost of silk seed supplied, as many rearers sold their cocoons directly to buyers and did not bring them to the Exhibition. The practice was, therefore, stopped and all silk seed is now sold on cash payment. If buyers did not turn up at the exhibition to purchase the cocoons brought for sale, or if the rates they offered were too low in comparison with market rates, the Agricultural Department used to purchase the cocoons from the rearers and either reeled them or sold them piece-meal to buyers later on. For the last two years or so, however, the Department is not purchasing the cocoons and the entire crop is purchased by certain silk dealers from Amritsar.

(3) The silk-worm reared in the Punjab is the Univoltine mulberry silk-worm named *bombyx mori*. As already stated the seed is imported from France.

(4) The silk-worm eggs are hatched by the rearers either by means of the heat of the body or the fire, and the worms are reared on mats spread on the ground or on charpais. In a few cases wooden racks are also used for the purpose. Mulberry leaves are supplied to the worms at least twice a day. After the cocoons have been formed they are spread out in the sun to kill the pupae inside. These cocoons are then dried further in the sun before they are ready for sale.

Mulberry is propagated from cuttings as well as from seedlings raised in a nursery.

(5) In the Punjab only a single brood of the silk-worms is reared during the year. The average quantity of dry cocoons produced per ounce of silk seed varies from 7 to 10 seers.

(6) Practically the entire cocoon crop is reeled.

(7) (a) The cost of seed varies from Rs. 2-8 to Rs. 3 per ounce.

(b) The rearers pay Re. 1 as the price of mulberry leaves per ounce of silk-seed reared. These leaves are obtained from trees growing on the canal bank. In other cases the trees may be privately owned and the leaves may cost nothing.

(c) The cost of appliances is practically nothing.

(d) The cost of labour is also practically nothing, as the silk-worm rearers collect the leaves and do all the work themselves.

(8) The average price obtained for cocoons was about Rs. 200 per maund in 1925-26, whilst the present time it is about Rs. 80 per maund. The average yield of silk obtained when reeling is done at home is about $\frac{1}{4}$ th the weight of the cocoons reeled. The price of this silk, which was about Rs. 25 per seer in 1925-26, is now Rs. 12 per seer.

(9) The cost of reeling silk by hand is estimated at about annas 8 per seer of cocoons reeled according to the rates for labour prevailing at present. I am not in a position to give any reliable figures regarding the cost of reeling by machine. So far as I know machinery for silk reeling is not used in the Province.

(10) The total annual production of raw silk from the crop raised under the supervision of the Agricultural Department last year was about 12 maunds. The waste consists of *sarna*, *gudder*, etc., and amounts to about $\frac{1}{4}$ th the quantity of cocoons reeled. Its value is approximately $\frac{1}{12}$ th value of raw silk according to the rates prevailing at present.

(11) So far as my information goes the entire silk and waste produced in the Province are consumed locally.

Enclosure No. 2.

No. 320.

From

The Director of Industries,
Punjab.

To

The Secretary
to Government, Punjab,
Finance Department, Lahore.

Dated Lahore, the 10th January, 1933.

Sir,

With reference to Punjab Government endorsement No. 39452-I. & L., dated the 16th December, 1932, I have the honour to state that the sericultural industry is the concern of the Agricultural Department in the Punjab. The Director of Agriculture who, it appears, has been addressed on the subject, will furnish the necessary information in connection therewith: I am concerned with the Industrial utilization of silk yarn which is used in the Punjab mainly in the weaving of silk cloth and other allied purposes. I understand that the sericultural industry in the Punjab is not yet of any great importance. The largest amount of silk turned out in any one year by the reeling factory at Sujampur was 18 maunds—26 seers—15 chhataks in the year 1928. Thereafter the outturn of the factory has been diminishing and now it is closed. From the information which I have been able to gather during the short time allowed for the reply I find that the following are the approximate quantities of silk yarn now consumed in the Punjab:—

For weaving.

Yarn imported from	Value. Rs.
Jammu and Kashmir	2,39,900
Other provinces	3,500
Yarkand	6,05,000
Miscellaneous sources	13,200

For embroidery and other works.

Yarn imported from	Value. Rs.
Bengal, etc. (Malda)	7,700
Japan	99,000
China	1,10,000
Italy	1,65,000

It will be observed that the total value of Indian yarn used in the Punjab is Rs. 2,51,100 and of the foreign yarn Rs. 9,92,200 (approximately). Figures of the local yarn consumed in the province are not available, but the quantity is in any case negligible. The yarn imported from Yarkand comes through the land route and accordingly pays no customs duty. So that, unless duty is simultaneously imposed on the imports through the land route any enhancement of duty on sea-borne raw silk will result in increase of imports from Yarkand and will do no good to the local industry.

2. It appears that, from the point of view of the sericultural industry, the Punjab has at present only an academic interest in the matter: sericulture in the Punjab does not appear to have made any headway even when the selling price of yarn was Rs. 17 as against Rs. 5-8 at the present time. However, silk yarn has an importance for this province in connection with weaving, embroidery, etc., and nothing should, I venture to think, be done which may have the result of hitting the weaving industry which as it is, is passing through bad times. In certain places where the weaver is unable to compete with the mill products in cotton, he has taken to the weaving of silk which gives him a slightly better margin of profit. Owing to the lower price of silk yarn locally woven silk cloth in such lines as shirtings, coatings, dhoties, sarees, daryais, and lunges, is finding some market in these days and the handloom weaver is able to make a living. If an enhanced duty were imposed on imported silk yarn—land-borne as well as sea-borne—the price of the silk cloth manufactured from it is bound to go up, with the result that it will become more difficult for the handloom weaver to compete with the cheaper silk cloth imported from China and Japan, with which the market is flooded. Therefore, until a further increase is made in the duty imposed on the manufactured silk goods imported from China and Japan any increase in the duty on imported silk yarn will hit the hand weaving industry of the Punjab. It appears to me that before any increase in duty is effected on imported yarn, Government should satisfy itself that adequate supplies of raw silk will be available in the country and at the rates at present prevailing. Otherwise we shall be giving a blow not only to the hand-weaver of silk but also to the sericultural industry ultimately owing to the extinction of silk weaving in consequence of competition from China and Japan.

Government of Bihar and Orissa.

Letter No. 250/11-C. 3-Com., dated the 19th January, 1933.

I am directed by the Governor-in-Council to forward a copy of a note recorded by the Director of Industries, Bihar and Orissa, containing information on the points discussed in paragraphs 3, 4 and 5 of your letter No. 557, dated the 5th December, 1932, and to say that the local Government agree with the view expressed therein, *viz.*, that as this province does not produce raw mulberry silk and as the weavers benefit by getting their raw silk cheap, the imposition of a protective duty on imported silk would not be of any advantage to them. Any protective duty would also affect injuriously the interests of consumers in the province.

Enclosure.

NOTE ON SILK INDUSTRY IN BIHAR AND ORISSA BY THE DIRECTOR OF INDUSTRIES, BIHAR AND ORISSA.

The only silk produced in Bihar and Orissa which is of commercial importance is tasar. The following note on the queries in paragraph 3 of

the letter No. 557, dated the 5th December, 1932, of the Tariff Board relates, therefore, only to tasar.

3. (1) As rearing and collection of cocoons are not carried as a whole-time occupation, an estimate of the number of people engaged in these operations is most difficult. In general, tasar is collected by the Sonthals, Kols and other aboriginal tribes in the districts of Singhbhum, Manbhum, Palamau, Hazaribagh, Sonthal Perganas, Sambalpur, Ranchi and Chota Nagpur and Orissa states. The Superintendent of the Silk Institute, Bhagalpur, estimates the number of tasar rearers at 40,000. No estimate of earning of these rearers can be given.

(2) The collectors of cocoons pay a royalty of Re. 1 per head for permission to rear and collect tasar cocoons in Government and private forests. The cocoons are sold to middlemen who take them to the mahajans. The mahajans sell the cocoons in the market places to weavers. Women generally reel and spin the cocoons and men weave the thread into cloth. They generally take advances from silk merchants or master-weavers and are, therefore, bound to accept for the finished products the price which the latter dictate.

(3) Tasar is reared from local seeds.

(4) The food plants of tasar are Arjun, Asan and Sal (*Shorea Robusta*) plum and some other trees. These grow wild in the forest. The rearers who are generally aboriginals pollard the branches about 2 months prior to rearing. In June or July after the "break" of monsoon tasar moths come out of the seed-cocoons kept in the house of the rearers. Males are allowed to fly away as they do not pair in captivity. The females are tied by means of thread on a tree or on bamboo ends, while males from the jungle visit them at night and pair. The fertilised moths oviposit about 150 eggs next day. These are collected and kept in an earthen vessel. On the 5th or 6th day after oviposition the eggs are kept on a cup of leaves and taken to the food plant. On the 7th day when the worms hatch they crawl to the leaves and feed on them. When the leaves of one tree are exhausted they are transferred to a new one. This is continued for about 55 days when the worms mature and spin cocoons after casting off their skins 4 times. The rearers generally watch the worms and protect them from birds, flies and other enemies. The cocoons are collected on the 5th or 6th day after maturity.

(5) From 1 oz. of tasar eggs, 50 seers of green cocoons are obtained. Tasar is reared $\frac{3}{4}$ times in a year.

(6) Each tasar rearer on an average rears about 4 thousand cocoons of which about 150 are kept for seed purposes. The rearers, as a rule, do not do any reeling.

(7) (a) If the rearer has no seed cocoons left over from a previous rearing, he may purchase about Rs. 2 worth of seed cocoon.

(b) As stated above, the royalty of Re. 1 per head is paid.

(c) Practically nil.

(d) All the work necessary being done in spare time, no estimate can be given.

(e) No estimate.

(8) 1,280 tasar cocoon cost Rs. 7. The yield of reeled thread from this will be about 2 lbs. which fetch about Rs. 11.

(9) Reeling is done on crude hand-machines. A tasar reeling machine costs As. 8 only.

(10 & 11) No recent figures available. According to the rail and river-borne returns for Bihar and Orissa (discontinued since 1922-23) the average annual export of raw silk from this province amounted to 2,900 mds. valued at Rs. 31,62,000 (average for 5 years ending 1921-22). No estimate for the amount consumed in the province by the local weavers can be given. Very little waste is utilised within the province. Nor was its export recorded

separately in the provincial rail and river-borne statistics. Hence no information can be given as regards the value and quantity of waste exported out of the province.

4. From a perusal of the rail and river-borne returns of this province up to 1922, it will be seen that import of raw silk, either Indian or foreign, into the province was negligible. In fact, the import of foreign raw silk was blank, only the import of a small quantity of raw silk of Indian origin being recorded from time to time. The maximum quantity of the latter imported in any year from 1912-22 was only 957 cwts. in 1921-22. On the other hand, the quantity of raw silk exported from the province used to be quite large. The last year on record, 1921-22, shows the figure of 5203 cwts. valued at over Rs. 56½ lakhs. There is no doubt that this is all tasar cocoons which cannot be said to compete in any way with reeled mulberry silk which forms the bulk of India's import of raw silk.

5. We have of course no figures for import into or export from the province since 1922-23 and hence cannot gauge accurately what is the exact position now. But from experience and observation, it seems reasonable to state that foreign raw silk is not used to any great extent in this province. This is further borne out by the fact that the share of Bengal in the import of foreign raw silk is very small as compared with that of Bombay and Madras. Bhagalpur being our most important silk manufacturing centre, any radical change in this behalf would be most marked there. But the quantity of reeled silk goods made there is still very small as far as information goes. The bulk of Bhagalpur silk piecegoods are woven with spun waste rather than reeled mulberry silk.

It is interesting to note that the import of raw silk into India in the pre-war days was as high as 3 million lbs. per annum exclusive of Burma. The present import of raw silk, in spite of very sharp increase which it has shown recently appears to fall far short of what the country needed in the pre-war days.

Prima facie, so far as this province is concerned as we are not producer of raw mulberry silk, it is to the interest of our weavers to obtain their supply of raw silk (mulberry) as cheaply as possible, especially as there has been a tendency recently by the weavers to weave reeled mulberry silk piecegoods. It cannot, therefore, be of any advantage to our weavers to have the price of his raw material raised by the imposition of a protective duty on imported silk.

Government of the Central Provinces.

Letter No. 168/138-XIII, dated the 21st January, 1933.

With reference to your letter No. 557, dated the 5th December, 1932, on the above subject I am directed by the Governor-in-Council to forward a copy of memorandum No. 271-D, dated the 16th January, 1933, from the Director of Industries, Central Provinces, together with a note by the Weaving Superintendent, giving the information desired in paragraphs 3 to 5 of your letter under reference.

2. It is clear that the sericultural industry in this province will not be affected by the imposition of a protective tariff on silk yarn, while the silk weaving industry will be adversely affected.

Enclosure.

Copy of Memorandum No. 271/D, dated Nagpur, the 16th January, 1933, from the Director of Industries, Central Provinces, to the Secretary to Government, Commerce and Industry Department, Central Provinces.

Subject:—ENQUIRY BY THE TARIFF BOARD INTO PROTECTION FOR THE SERICULTURE INDUSTRY.

With reference to Rai Sahib Varma's endorsement No. 2477/2317-XIII, dated the 16th December, 1932, calling for a report on the above subject,

I enclose herewith a note prepared by the Weaving Superintendent of this department. This is all the material that could be collected with the limited staff and in the limited time at our disposal, and furnishes the replies concerning our province to the points raised in paragraph 3 of the Tariff Board's letter.

2. *Paragraph 4 (a) of the Board's letter.*—I may state that tasar production is the only sericultural industry in the province and (mulberry) silk imported from abroad does not appear to compete much with tasar. The reasons, so far as I can make out, seem to be that tasar fabrics are coarse and much cheaper and the class of people using them have not yet taken to the finer fabrics made of imported mulberry silk. The fact that tasar fabrics are considered by the Hindus indispensable for certain ceremonial purposes may also have given them some protection from the competition of other kinds of silk.

Paragraph 4 (b) of the Board's letter.—In paragraph 6 of the Weaving Superintendent's note the total output of raw tasar silk is estimated at 2,000 maunds and its value at the present market rate comes to somewhere near Rs. 14 lakhs. The latter figure, though unexpectedly high, has to be presumed to be not so wide of the mark if the estimate of output (based on information obtained from wholesale cocoon merchants at important centres) is accepted as approximately correct. About 7,000 to 8,000 people are estimated to be engaged in the growing, reeling and weaving of tasar mostly as part-time industries. Although surviving only in scattered areas the extent of the industry is not thus inconsiderable, although not perhaps comparable with the volume of the silk industry in other parts of India (e.g., Kashmere, Mysore, Mayurbhanj States or provinces like Bengal and Bihar and Orissa). For the reasons indicated in the preceding sub-paragraph any protection in the way of duty on imported raw silk does not, however, appear to be necessary. The bulk of the sale proceeds of the silk seems to go to the middleman in the business like the wholesale cocoon dealers (*vide* paragraph 3 of Weaving Superintendent's note) and what is wanted is better credit and marketing facilities for enabling the primary producers to obtain their due share of the profits of the industry.

3. *Paragraph 5 of the Board's letter (effect on handloom weavers).*—Handloom weavers use a considerable quantity of imported mulberry silk, both Indian and foreign. The Indian silk is mostly from Bengal and Kashmere and the foreign from China. Since the beginning of 1932 the proportion of Chinese silk used has been going up and is now roughly estimated to be about 40 per cent. of the total consumption. This sort of silk is used mostly for the borders of saree and as sarees with such borders can be better made by hand this part of their business is of great importance to the handloom weavers. Chinese silk is very much cheaper than Kashmere silk (the Indian variety mostly used at present) and the recent large imports of Chinese silk have enabled the weavers to increase their business by putting their fabrics on the market at slightly cheaper rates. Duty on foreign silk will deprive them of this temporary benefit especially in these days of depression. But borders of Chinese silk are much inferior in quality to those of Indian silk and there is a risk of fabrics made of such inferior raw material being discredited after a time. As a result the use of such fabrics might eventually be restricted, which also will cause a loss to the weavers. But in a matter like this we can not perhaps look so far ahead and all we can say is that the immediate effect of any duty would be adverse to the handloom weavers' interests.

It is difficult to state definitely how far the handloom weavers can afford to pay a higher price for imported silk. It appears from the Weaving Superintendent's note that in the case of a saree with 8 oz. of raw silk in the borders Chinese silk enables a weaver to reduce the cost of production by 8 annas. It is, however, this slight margin which is enabling him in these days to make both ends meet and any further encroachment on this margin of profit would be keenly felt by him.

Enclosure No. 2.

NOTE ON SERICULTURE IN THE CENTRAL PROVINCES BY THE WEAVING SUPERINTENDENT.

General.—In dealing with sericulture in the Central Provinces it must be stated at the outset that there is no mulberry silk rearing and that **tasar** alone is grown in the province. Enquiries at Nagpur, Bhandara, Burhanpur and Chanda indicate that about 12,000 lbs. of mulberry silk are being annually imported into this province both from foreign and Indian sources. Since 1930, Bengal Mulberry began to be gradually replaced by Kashmere silk and by the middle of 1932 imports of Bengal silk into the Central Provinces practically ceased. Since the beginning of 1932 Chinese silk has been coming into the market in greater quantities and the position at the end of 1932 is that Chinese silk represents about 40 per cent. while other Indian provinces contribute the remaining 60 per cent. of the total imported silk consumed in the province. At the present moment on account of its cheapness Chinese silk is gradually gaining in popularity and dealings in Kashmere silk are involving the merchants more and more in loss. Mulberry silk imported into the province is used by a large section of the handloom weavers. They also use larger quantities of tasar, part of which is grown in the province and the rest imported. No statistics are available to make an accurate estimate either of the tasar grown in the province or the quantity of the same imported. The trade returns show under the same head all kinds imported. This note refers to tasar silk rearing, reeling and weaving and also to the weaving of imported mulberry in this province.

2. *The number of people engaged in the industry and their average earnings.*—According to the census of 1931 the number of persons employed principally in silk spinning and weaving is 3,962 in the Central Provinces and Berar and 81 in the Central Provinces States. This figure is presumed to be much less than the actual number engaged in this industry. This is due to the fact that to a large section of the people engaged in rearing tasar it is only a part-time activity and they are essentially agriculturists and general agricultural labourers. The reelers are generally the womenfolk of cotton and silk weavers. The weaving of silk is also a part-time business to weavers in certain districts; for example, all those who weave silk-bordered fabrics use imported mulberry silk and the weaving of this fabric is still holding the field. Only about 3,000 weavers are said to turn out silk fabrics exclusively. Therefore, the number of persons interested in the silk industry in general will be several times the number indicated by the census figures. The number of weavers using mulberry silk for borders of sarees and dhoties is approximately 12,000. The number engaged in tasar rearing as a subsidiary occupation will be between 4,000 and 5,000, while tasar reelers and weavers may be put down at 2,000 and 1,200 respectively. The rearers work for a period of nearly 6 to 8 weeks during the whole year and raise three crops in July, October and January, of which the first two crops are used for seed purposes while the last one is sold to merchants. The average earnings of a rearer can be put down at about Rs. 20 per year (i.e., per season). Tasar weavers earn as much as Re. 1/8 to Rs. 2 per day during the season from February to June and during the remaining seven months of the year they get between As. 8 to As. 12 per day.

3. *The manner in which the industry is organised with reference to management and marketing.*—Tasar rearing is done by *dhimars* in the Bhandara, Chanda, Balaghat, Chhindwara and Bilaspur districts. Owing to strict reservation of forests rearing is not carried out extensively in Government forest but in jungles owned by malguzars. Tasar rearing is done in these forests on payment of rent of Re. 1 for a crop obtained from 100 seed cocoons. Payment of rent in advance is insisted upon. This is a great hardship to the rearers as the yield of cocoons is uncertain and may entirely or partly fail owing to sudden showers of rain, storms or continued dry heat and several other unforeseen causes. The rearers practise tasar rearing as it brings in certain cash income and they have the neces-

sary skill and knowledge for this work. Tasar cocoon merchants are a distinct set of middlemen who purchase cocoons from rearers' houses and sell them to weavers after steaming the same. Cocoons are purchased and sold by number. The difference between the purchase and sale price is the profit of the cocoon dealer who invests money and takes pains to visit the rearers' houses for collecting cocoons and bringing to the weavers. The rearer does not usually keep back any seed cocoons from the January crop but depends upon the chances of collecting wild seed cocoons in June. In order to be sure of a ready supply the cocoon dealer advances money while the worms are feeding on trees. The malguzars are usually very reluctant to let the rearer use jungle as pollarding of trees is believed to be injurious to the good growth of timber which they value more than the rent from the cocoon rearer. These difficulties stand in the way of the expansion of the industry. There is no organisation either for the sale or purchase of cocoons. But generally each cocoon dealer buys from a particular locality only and rarely goes out of that area. The weavers would be idle without a regular supply of tasar yarn and so they also purchase the raw material from Mayurbhanj State, Chaibasa and Sambalpur. Some dealers usually go for cocoons to the adjacent districts and bring in their material booked as luggage in passenger trains. The bulk of cocoons imported by dealers in this way is not shown in the rail-borne trade returns. The tasar cloth woven in the province is consumed locally.

4. *Kind of silk-worms reared and whether from local or imported seed. The precise nature of operations involved in the case of each kind of silk-worm reared and in the case of those which live on mulberry leaves. Method by which mulberry is cultivated.*—The silk reared in the province is tasar and no other variety is cultivated here. Tasar worms feed on Asan trees locally known as 'Yen' in this province. The seed cocoons are collected from thick jungles where wild moths lay eggs which hatch in due course. These live on tops of trees feeding as and where they find food leaves and cocoons are spun as the worms mature in their wild state. These cocoons are collected for purposes of seed with some difficulty by rearers. They are brought to their houses and kept tied to bamboo rafters in the roof till moths emerge. The moths are collected and paired off in a net bag for protection against birds and lizards. After one night's pairing, the male moth is separated and allowed to fly away while the female moths are kept in a bamboo basket for another day for laying eggs. The female moth dies while laying eggs in the basket. The dead moths are thrown away and the eggs are collected and kept in a dry leaf carefully folded and covered. Each female moth lays 80 to 100 eggs. This is done in the month of June and the eggs remain for a period of one week in that condition and hatch on the 8th day. As soon as they hatch the worms are taken to the jungle and allowed to feed on tender leaves of Asan trees. Trees not higher than 10 feet are selected for this purpose so that the rearer may transfer them from one tree to another when necessary for supply of fresh food. This transferring from defoliated trees to trees with better foliage is done by cutting the branches from the former and tying them to the latter. The rearers in some cases where the jungle is very thick protect the young worms by constant watch and shading the trees with hanging branches all round. These worms feed on the trees for a period of 4 to 6 weeks. There is usually a large percentage of death due to excessive rains or disease, but the few that survive spin cocoons which mature by the end of October when the cocoons are gathered and brought into the rearers house. These cocoons must be preserved for a period of 20 days for the moths to come out. The eggs are then collected and allowed to hatch. The worms are taken to the jungle and allowed to grow there and the cocoons are collected in January. Beginning with a few wild cocoons in June, the rearer takes them through the second crop to multiply his seed supply and get a large crop of cocoons in January for sale. The cocoons produced in January do not bring out moths till about June. The rearer sells them and depends on the chance of collecting seed cocoons from the jungle mostly those that escape him in January. In some cases rearers

keep back a few cocoons and grow seed out of them for June. This practice of growing one's own seed is not generally practised in this province as the rearers are not sure of renting a suitable jungle nor can they count on all the cocoons giving healthy male and female moths. In some cases a rearer purchases seed cocoons at 25 per rupee in July from other rearers who may have gathered more and in November also seed cocoons are purchased by some rearers at the rate of 100 cocoons or a few more per rupee. The sale rate of cocoons in January depends on the size of the crop. The dealers usually take advantage of the poverty of the rearers and try to buy the cocoons from them as cheap as possible. This is responsible to some extent for the gradual decline of the tasar industry in this province. The difference between the purchase and the sale rates of cocoons is about 50 per cent. and the rearer who has laboured and waited for six months hardly gets an adequate return.

5. *Points 6, 7 and 8: Number of broods produced in a year. Proportion of cocoons reeled and compared with those kept for producing moths. Average price obtained for cocoons sold or if the silk is reeled at home—average yield of silk obtained and its value.*—The number of broods produced in a year is three. It is not possible to estimate the number of cocoons produced per oz. of seed as the seed is not measured in ozs. But approximately speaking 100 seed cocoons of November may produce as many as 8,000 cocoons for sale in January as one male moth can be used consecutively for 3 nights on 3 female moths and as the number of female moths that emerge from the seed cocoons is much higher than that of the male ones. Tasar cocoon rearing is a distinct occupation as the rearers do not reel any thread but sell their cocoons for cash. Seed cocoons are obtained from wild stock and are not set aside from saleable stock obtained in January. While cocoons for seed purposes are obtained from those which escape the rearers' attention in January. The seed does not cost anything to the rearer. In the cost of producing cocoons there are only two items, the rent paid to the malguzar for using the jungle and the cost of the labour of the rearer and his family. Rent paid to the malguzar is Rs. 10 to Rs. 12 per annum at Re. 1 per 100 seed cocoons and the rearers' wages are the value realised for the cocoons sold less Rs. 10. The rearer does not work unless he has at least 500 seed cocoons. He produces on an average 4,000 cocoons for which he gets Rs. 20 at the present market rate. He pays Rs. 10 as rent and Rs. 10 represents his earning for 60 days' labour. As he does some other kind of work during these days he finds this income sufficiently attractive to continue this business.

6. *Points 9, 10 and 11: Cost of reeling silk by hand or by machine and extent to which machinery is used for this purpose. Total annual production of raw silk and corresponding quantity of waste produced and its average value, quantity of silk and waste used locally and the quantity sold for use in other parts of the country or for export and the manner in which it is marketed.*—Silk reeling is done by hand by women excepting about 20 families of reelers at Bhandara who pay As. 2 to a reeler per day. Others do not pay any wages as the women help the weavers in their work by reeling cocoons for the looms. No machiner is used. Waste produced at Bhandara is sold to merchants at As. 4 per seer for export to Calcutta while the waste produced at the houses of weavers is spun into coarse thread and woven into cloth for local sale. *Kahan* is the unit for the purchase and sale of tasar cocoons. A kahan in the Central Provinces is 25×80 cocoons. A kahan of cocoons produces nearly 2 lbs. of raw tasar and 2 lbs. of waste. Such rough estimates as can be framed indicate that about 90,000 kahans of cocoons are raised in the Central Provinces producing about 2,000 maunds of raw silk and an equal quantity of waste. At the present market rates tasar silk yarn is sold for Rs. 16 per seer and waste at As. 4 per seer. On this basis the value of tasar silk produced in the province would be in the neighbourhood of 14 lakhs of rupees and that of waste about Rs. 22,000. But for a very small quantity the whole of the waste produced is used in the province. The handloom weavers of the province use nearly 1,000 mds. of imported mulberry and 4,000 mds. of imported

tasar in addition to the 2,000 mds. of locally produced tasar. Mulberry silk imported from Kashmere is sold in the local market at Rs. 7/10 a lb. compared with Rs. 4/6 a pound of Chinese silk. There are several merchants who hold stocks of Kashmere silk purchased at the beginning of 1932 at a cost little over Rs. 16 a seer. Kashmere silk is much superior to Chinese material in respect of its evenness and freedom from entanglements. To open out a seer of Chinese silk it takes as much as 6 days, while a seer of Kashmere silk could be opened in a day. This factor raises the cost of Chinese silk by nearly Re. 1 a seer. As the Chinese silk is cheaper than Kashmere material by Rs. 6/8 a seer, the weaver gains by Rs. 5/8 per seer of silk purchased by him. The quality of cloth made out of Chinese silk is much inferior involving more labour in weaving and other operations and this extra labour adds to the cost of the fabrics produced out of it.

The following examples would illustrate difference in the cost of manufacture of silk-bordered sarees by using Chinese and Kashmere silk:—

(1) A saree measuring 9 yards \times 45" with 40s warp and weft containing 8 ozs. of silk is sold for Rs. 7 to Rs. 8 in the market.

	Rs. A.
Quantity of cotton yarn in warp and weft $1\frac{1}{2}$ lbs. at Rs. 8 per bundle of 10 lbs.	1 0
Quantity of raw silk, Chinese, $\frac{1}{2}$ lb.	2 3
Silk opening	0 8
Dyeing and other expenses	0 14
Cotton dyeing	0 5
Total	4 14

Sale price being Rs. 7 a saree the weaver earns Rs. 2/2. The cost of production of the same saree with Kashmere silk would be:—

	Rs. A.
Cost of silk, $\frac{1}{2}$ lbs., at Rs. 7/10 per lb. (present market rate)	3 13
Cotton yarn	1 0
Dyeing, etc.	0 5
Silk dyeing and other charges	0 14
Total	6 0

The weaver works for 2 days in each case. Earnings for 2 days are Rs. 2/2 with Chinese silk and with Kashmere silk and with Kashmere silk Re. 1. He thus gets As. 8 per day by using Chinese silk.

2. A saree measuring 9 yards \times 45" woven with 40s warp and 20s weft and using only $\frac{1}{2}$ lb. of silk is sold in the market for Rs. 4/8 to Rs. 5. The cost of manufacture is as noted below:—

	Rs. A. P.
$\frac{1}{2}$ lb. 40s cotton yarn at Rs. 8 per bundle	0 8 0
1 lb. 20s yarn at Rs. 6/4 per bundle	0 10 0
2 hanks 60s yarn	0 0 9
10 tolas silk, Chinese	1 1 6
Other expenses	0 8 0
Opening	0 4 0
Warping, etc.	0 3 0
Total cost	3 3 3

By using Kashmere silk, the weaver's cost of manufacture is increased by Rs. 1/14/6 less cost of opening the Chinese silk As. 4 net increase Rs. 1/10/6.

Total cost of a saree would thus be Rs. 4/13/9 with Kashmere silk as against the selling price of Rs. 5 to Rs. 5/8.

The weaver purchases the cheaper Chinese material because he has to invest less cash on its purchase.

7. These cheaper sarees also sell more readily in these days depression but in course of time the popularity of fabrics with Chinese silk might, however, be adversely affected as their quality is very poor. If as a result of the use of cheap Chinese mulberry this special class of silk-bordered fabrics becomes unpopular there is a risk of the handloom weaver losing the only business in which he is yet able to hold his own against mill-made cloth.

The local tasar industry is not yet affected by Chinese imports and tasar workers do not use mulberry silk. As the handloom weavers of this province are entirely dependent upon imported mulberry silk taxation of their raw material would be injurious to their interests.

Statement showing imports and exports of silk, raw, to and from the Central Provinces and Berar during the year 1926-27 to 1931-32 and up to the quarter ending June 1932.

Year.	IMPORTS OF SILK, RAW, INTO THE CENTRAL PROVINCES AND BERAR.			EXPORTS OF SILK, RAW, FROM THE CENTRAL PROVINCES AND BERAR.		
	Foreign.	Indian.	TOTAL.	Foreign.	Indian.	TOTAL.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
1926-27 . .	..	1,347 19/20	1,347 19/20	..	45 2/5	45 2/5
1927-28 . .	..	8,401 31/40	8,401 31/40	..	238 13/20	238 13/20
1928-29 . .	12 1/2	5,509 7/40	5,521 27/40	..	183 3/40	183 3/40
1929-30 . .	2 1/40	2,855 9/20	2,857 19/40	..	119 27/40	119 27/40
1930-31 . .	81	4,203 3/20	4,284 3/20	..	192 33/40	192 33/40
1931-32 . .	..	4,363 1/20	4,363 1/20	..	185 29/40	185 29/40
Ending 30th June 1932	..	138 9/40	138 9/40	..	..	..

N.B.—It should be noted that enquiries disclose that a large quantity of silk is imported as personal luggage by passenger trains and such imports are not included in the figures of rail-borne traffic in this article.

Government of Bengal.

(1) *Letter No. 393, dated the 21st January, 1933.*

Subject:—ENQUIRY INTO THE QUESTION OF GRANTING PROTECTION TO THE INDIGENOUS SERICULTURAL INDUSTRY.

I am directed to refer to your letter No. 557, dated the 5th December, 1932, on the above mentioned subject.

2. In reply, I am to say that sericultural industry is one of the important cottage industries of Bengal, carried on in the districts of Malda, Murshidabad, Rajshahi, Birbhum, Bankura, Midnapore, Bogra and Howrah and to furnish the information asked for as far as available on the points

(3) to (10) enumerated in paragraph 3 of your letter, seriatim, as noted below:—

(1) *The number of people engaged in the industry and their average earnings.*—The number of people engaged in the industry is shown below:—

Number of rearers and helping dependents (number of rearing families—40,000)	160,000
Number of reelers	5,000
Number of winders for reeling	5,000
Matka and Jhut spinners (mostly women)	15,000
Silk weavers	2,000
Total	187,000

Accurate information about the earnings of reelers and weavers is not available. As regards the income of silk-worm rearers from Sericulture, the income per family is not similar in different districts and varies even in the same locality as will appear from the following particulars gathered in 1926-27 in the important silk-worm rearing areas in the districts of Malda, Murshidabad and Birbhum.

	Murshidabad.	Malda.	Birbhum.
Number of rearing families	12,693	17,487	2,429
Total area under mulberry in bighas	14,218	37,156	2,602
Total outturn in kahons	1,344,010	4,409,430	289,222
Total sale proceeds in rupees	12,90,543	49,01,670	2,21,110
Net profit in rupees	6,18,530	27,72,343	1,47,515
Average income per family in rupees	49	158-9	60-12
Average area under mulberry in bighas	1-2-6	2-2-0	1-1-6
Average output of cocoons per family in kahons	106	252	119

Since 1928-29, the income has fallen seriously owing to reduced price of cocoons, as may be judged from the following statement regarding fluctuation of price of cocoons and silk yarn in Malda:—

Year.	Price of village cocoons per seer.		Price of silk yarns per seer.	
	Maximum.	Minimum.	Maximum.	Minimum.
	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.
1923	1 9 0	1 6 0	32 0	12 0
1924	1 6 3	1 1 6	28 0	11 0
1925	1 2 9	1 0 0	23 8	11 0
1926	1 3 3	0 15 3	24 0	10 8
1927	1 2 9	0 14 6	23 8	9 0
1928	1 1 3	0 12 0	21 8	8 12
1929	1 0 0	0 10 6	18 14	6 12
1930	0 11 3	0 6 3	14 0	8 8
1931	0 9 6	0 6 3	12 0	6 8
1932	1 0 0	0 8 9	15 8	9 8

(2) *The manner in which the industry is organised with reference to management, finance and marketing.*—Sericulture is carried on mostly as a cottage industry by the cultivators as a subsidiary to agricultural pursuits. The work in connection with the rearing of the silk-worm is attended to by women and children. The cultivator looks after the mulberry plantation, carrying of leaves to his house and also helps in rearing. At the end of the crop he gathers the cocoons and reels himself if he has a cottage ghai (Khararu), or sells the cocoons to reelers who come themselves or send their agents to the villages.

Silk reeling is now mainly a cottage industry, although there are several owners of big filatures who reel the silk yarns by purchasing cocoons.

Rearers obtain loans from village Mahajans or Co-operative Credit Societies. The reelers usually get advance from Marwari merchants to whom they are obliged to sell the yarns according to rates which may be approved by the parties. Usually the merchant who advances money gets the yarns on his own terms.

The question of organising the silk industry of this province on co-operative basis engaged the attention of the Co-operative Department for a considerable time and the Malda Co-operative Silk Union was established in 1927, with the abovementioned object embracing the various processes from the rearing of cocoons to the disposal of finished silk products.

The Mysore Domestic Basin type of Reeling plant has been recently introduced at the Government Silk Weaving and Dyeing Institute at Berhampore in the district of Murshidabad and at Piasbari in the District of Malda and the Malda Co-operative Silk Union is now endeavouring to finance and market the products from Piasbari by this new type of Reeling plant.

(3) *The kind of silk-worm reared and whether from local or imported seed.*—Indigenous mulberry silk-worms are reared from seeds obtained from local Government nurseries, or from selected rearers or from village paikars who come to sell seeds. Some villagers also send their representatives to different villages to inspect the spinning of worms and then select the best lot for their seed.

The foreign races do not stand the climate of Bengal. Generally the following races are reared :—

Nistari—April to September.

Chotopolu—November.

Barapolu—January to March.

(4) *The precise nature of the operations involved in the case of each kind of silk-worm reared and, in the case of those which live on mulberry leaves, the method by which the mulberry is cultivated.*—Mulberry-leaf-feeding silk-worms are mostly reared in Bengal. In Bogra and neighbouring areas, the Eri silk-worms (*Attacus Ricini*), which feed on leaves of castor plants, and also reared.

Two breeds of mulberry-leaf-feeding multivoltin silk-worms, viz., *Bombyx Uraesi* (Nistari) and *Bombyx Fortunatus* (Chotopolu), are reared for 4 to 5 crops in the year. There is also a univoltin indigenous breed, viz., Barapolu (*Bombyx Textor*), which yields white silk during the February-March crop in North Murshidabad and Birbhum. For three years the Sericultural Department has been working at a method by which the Barapolu is made to hatch earlier in November to January for two crops in Murshidabad and Malda.

All these races of silk-worms are reared indoors. When the cocoons, which are kept for seed purpose, hatch, the moths are allowed to pair for 6 hours, when the males are taken off and the females allowed to lay eggs. The eggs hatch out under natural conditions, the period varying from 9 days (in

summer) and 16 to 24 days (in winter). When the tiny worms hatch out they are carefully fed at first with finely chopped leaves, and when older with whole leaf. As the worms grow, silk begin to form in the glands and when fully developed they form cocoons. The period from hatching to forming of cocoons extends from 22 days in summer to 40 days in winter. When the worms are ready for spinning, they are picked up from the feeding trays and placed in special spinning trays where they form cocoons. Particular care is taken of the worms to guard against any outbreak of disease, and also from the effects of bad weather. After the cocoons are spun the crysalides inside are killed by sunning and disposed of to the reelers for preparing thread.

All the mulberry-leaf-feeding silk-worms are fed on leaves of bush mulberry. Extension of tree mulberry cultivation amongst cultivators and in Government nurseries is being attempted by the Department in view of the lesser cost of cultivation and better quality of these leaves as compared with bush leaves which are not so well-suited for univoltin varieties of silk-worms.

(5) *The number of broods produced in a year and the average number of cocoons produced per ounce of seed.*—The multivoltines—Nistari and Chotopolu—complete 6 to 7 cycles in a year. The rearers obtain 4 to 5 crops in a year, according to the growth of leaves of their bush mulberry plantation. In Malda and Murshidabad, the Nistari is reared for three or four crops and Chotopolu for one crop. In some areas in Birbhum, the Chotopolu is reared throughout the year and Barapolu and Nistari for one or two crops, whilst in other districts Nistari is reared for three crops and Chotopolu for two crops. In Bankura Chotopolu is reared for three crops and Nistari two crops. In Midnapore and Bogra the Chotopolu is reared throughout the year. The programme of rearing is extremely varied, as even in different villages in the same district there is considerable variation and it is therefore difficult to generalise regarding the programme. The Nistari may be considered to be used for three crops, and Chotopolu and Barapolu for one to two crops in the winter.

The eggs are sold in this country as seed cocoons. One kahon of Government Nursery seed has been known to give an outturn of 100 to 150 kahons in the rearers' houses, whilst village seeds give 30 to 70 kahons from one kahon of seed. The kahon is 1,280 cocoons from which 500 layings of eggs are expected. About 135 layings may be considered to weigh 1 oz. which will produce 25 to 35 kahons, i.e., 32,000 to 34,000 cocoons.

(6) *The proportion of cocoons reeled as compared with those kept for producing moths.*—The proportion of cocoons reeled is 70 to 120 times the cocoons kept for seed.

(7) *The average cost of producing cocoons:*—(a) *Cost of seed.* (b) *Cost of food for worms (including for domesticated worms the cost of mulberry cultivation).* (c) *Cost of appliances.* (d) *Cost of labour.* (e) *Other expenses.*—The average cost of producing cocoons by a rearer cannot be calculated, as the labourer does all the work himself with the help of his wife and children.

The cost for food of worms is practically nil as the manuring of the land does not cost anything. The practice in this country is to spread earth on mulberry lands. This the rearer does himself. When hired labour is employed the cost per bigha is Rs. 30 to maintain a bigha of bush plantation in proper order to yield about 80 maunds of leaf per bigha. The cost of leaves in rearers' plantation on this basis will be 6 annas per maund of leaf, and if cost of harvesting and carrying is included, about 8 annas per maund.

The cost of appliances is also nominal, as the rearing appliances are made of bamboo. The complete equipment for raising 80 kahons, the maximum outturn which can be expected from a bigha from one crop, will be about Rs. 60. The life of these appliances may be taken to be 5 years or 20 crops. The cost per crop may therefore be taken to be Rs. 3.

The following approximate costing is estimated for a production from one bigha of land giving 80 maunds of leaf, or 160 kahons in 4 crops in a year:—

	Rs.
(a) Cost of seed cocoons	4
(b) Cost of food	40
(c) Cost of appliances	12
(d) Cost of labour	Nil
(e) Other expenses—	
(i) Rent for land at Rs. 5 per bigha for one year	5
(ii) Disinfection, clearing, etc.	5
	—
	66
	—

(8) *The average price obtained for cocoons sold, or, if the silk is reeled at home, the average yield of silk obtained and its value.*—Average price obtained for cocoons sold:—

(a) 160 kahons green cocoons will weigh about 130 seers. At the present low rate of 9 annas per seer, the rearer gets only Rs. 74 for the product. As the amount shown under cost of food is practically his own labour, the rearer manages somehow to get a living.

(b) If the rearer reels 160 kahons of cocoons he may expect to get 10 seers of reeled silk and 15 seers of chassam.

	Rs. a.
10 seers of reeled silk will sell for	90 0
15 seers of chassam (waste) will sell for	5 10
	—
	95 10
	—

(9) *The cost of reeling silk by hand or by machine, and the extent to which machinery is used for this purpose.*—(a) The cost of reeling is as follows:—

Steam heated indigenous country.

Ghais in organised filature factories—Rs. 3-4 per maund.

(b) The labour of reeling by hand in country ghais (Khamru) is taken to be Rs. 3 per maund of green cocoons and cost of fuel for same Rs. 2.

The machinery used up till lately for the purpose was of indigenous type: but recently the Mysore domestic basin type of reeling plant has been introduced at the Berhampore Institute and at Piasbari in Malda.

(10) *The total annual production of raw silk and the corresponding quantity of waste produced and its average value.*—The total produce of reeled silk in Bengal is estimated at 20 lakhs pound valued at nearly 1 crore of rupees (at Rs. 9 to Rs. 10 per seer of silk).

The corresponding production of waste (chassam) in reeling is nearly 33 lakhs pounds valued at about 10 lakhs of rupees.

3. The information on point (11) is not immediately available but when collected will be forwarded to you as early as possible.

4. I am to add that a separate communication will be made to you on the questions raised in paragraphs 4 and 5 of your letter under reply.

(2) *Letter No. 1069, dated the 28th February, 1933, from the Government of Bengal.*

Subject:—ENQUIRY INTO THE QUESTION OF GRANTING PROTECTION TO THE INDIGENOUS SERICULTURAL INDUSTRY.

In continuation of my letter No. 393, dated the 21st January, 1933, on the abovementioned subject, I am directed by the Government of Bengal (Ministry of Agriculture) to furnish the following information, so far as available, on paragraph 3 (11) of Tariff Board's letter No. 557, dated the 5th December, 1932, *viz., the quantity of silk and waste used locally and the quantity sold for use in other parts of the country or for export and the manner in which it is marketed.*

In 1927 a departmental census was taken which showed that silk fabrics were produced by 2,156 silk looms in this province and sold for Rs. 15,00,000 and that Matka silk yarn spun at Malda produced 954 maunds of silk fabrics and was sold for Rs. 3,42,000. No reliable information in respect of the quantity of silk and waste used locally or sold for use in other parts of the country is available. A statement showing the quantity and value of raw silk, chassam or waste and cocoons exported by sea from Bengal during the last 3 years is enclosed.

As to marketing I am to refer to the reply given in my letter of 21st January, 1933, to paragraph 3 (2) of Tariff Board's letter of 5th December, 1932.

2. As regards the questions raised in paragraphs 4 and 5 of the Board's letter of 5th December, 1932, I am to communicate the following views of Government in the Ministry of Agriculture:—

4. (a) *To what extent the industry has been affected by the increased imports of raw silk either by way of loss of orders or by the depression of the price obtainable to an uneconomic level.*—It is a fact that the raw silk industry in Bengal has been seriously affected by the increased imports of raw silk as evidenced by the loss to Bengal of the markets in other parts of India. The Bengal silk industry in competition with foreign silk suffers under a disability owing to the inferior methods of reeling practised and this defect is a factor in the situation which cannot be disregarded.

(b) *Whether the industry is of such economic importance to the province that it should be protected either by raising the duty on imported raw silk or by other measures.*—The industry is of considerable economic importance to certain districts of the province.

Raising of the duty on imported raw silk would no doubt be of assistance to the Bengal silk industry, but as it is a question of policy concerning the whole of India, it cannot entirely be governed by local considerations. Present prices are at an unremunerative level and so far as an import duty on raw silk would result in an increase in the internal price the raw silk industry in Bengal would be benefited by a protective duty. If, however, Bengal is to obtain the full benefit of a protective duty it is essential that improvements should be effected in the reeling and twisting operations as carried out in Bengal.

5. *Extent to which handloom weavers in Bengal use local or imported silk and how far they can afford to pay the higher price which may be expected to result in case the duty is increased.*—Imported silk is used to a very small extent by the silk weavers in Bengal who generally use indigenous varns. It is impossible to give a definite answer to the question how far the weavers could afford to pay a higher price for the raw silk resulting from imposition of a duty, until the amount of that duty is known. Owing to the relatively inelastic nature of the market it is possible that a small increase in the price of the raw material would not seriously affect the handloom weavers in Bengal.

Enclosure.

Statement showing the exports of silk (raw and manufactured) by sea from Bengal during the three years 1929-30, 1930-31 and 1931-32.

—	1929-30.		1930-31.		1931-32.	
	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.
<i>Silk—raw.</i>						
Mulberry silk excluding tasar and other wild silks—						
Raw . . . . .	..	..	36	300	..	..
Chasam or waste . .	138,632	1,43,560	86,522	89,105	1,858	720
Cocoons	39,308	35,570	..	..	18,500	27,750
Wild silk tasar, etc., Raw .	..	..	..	..	..	..
Chasam or waste . .	58,253	33,300	59,398	37,964	70,139	20,525
Cocoons	61,966	76,675	59,250	38,875	..	..
TOTAL OF SILK, RAW .	298,159	2,80,105	205,206	2,16,244	90,497	48,995

(3) *Letter No. 3645, dated the 4th March, 1933, from the Director of Agriculture, Bengal.*

I have the honour to forward herewith for your information a detailed note on the production of raw silk in Bengal.

NOTE ON PRODUCTION OF RAW SILK IN BENGAL.

Prof. Lefroy's Report, 1916.

In his "Report on an inquiry into the Silk Industry in India" published in 1916, Prof. Lefroy observed in connection with the silk industry in Bengal:—

Page 19, Vol. I, Reeling profits.—"A maund of cocoons will give 3 seers of Khungru silk, native reeled or 2½ seers of filature silk."

Page 21, Vol. I, Yield per bigha.—"A general estimate of yield is that a bigha should give one big plucking of 30 maunds of leaf and a total for the year of 100 maunds. As on the whole it requires 20 seers leaf per seer of green cocoons, there should be a return, if the worms are not diseased, of 5 maunds green cocoons per annum."

Page 87, Vol. I.—"The yield of leaf per acre of mulberry varies according to soil, water supply, manure and number of pluckings. In Bengal 200 maunds of leaf per acre in five pluckings is near the average but 300 might be got with irrigation in March and good manuring."

Page 21, Vol. I, Disease.—"Pebrine is as bad now as it was 20 years ago, despite the large sums of money spent."

Dr. Jameson's Report, 1922.

Since the publication of the report of Prof. Lefroy, the investigations of Dr. Jameson (Imperial Protozoologist) were published in 1922 in his "Report on the diseases of silk-worms in India".

Dr. Jameson's "Report on diseases of silk-worms in India", 1922, page 25.—"In Nursery stock there seems to be relatively little disease at best none at all, at worst about 8 per cent."

* * * * *

"In nursery stock reared in villages there is relatively very little disease."

Regarding the disease in nursery stock of 2 to 6 per cent. *Nosema Bombycis* (Pebrine) Dr. Jameson remarked in page 25:—

"It can hardly be called 'disease' for it has shown itself only in microscopic examination and these moths are comparable in a way with the 'amoebic carrier'—a person who may not have suffered from amoebic dysentery yet shows the organism in his stools. Such a percentage of infection could, of course, be eliminated or reduced to a completely negligible amount by very painstaking examinations. It is a question as to what will be profitable: a small percentage of *Nosema* infection at certain examination cost or a smaller percentage at an increased cost. In any case the amount of *Nosema* infection is not to be greatly dreaded, provided the seed is reared under reasonably good conditions and for one generation only."

Page 29.—"We have seen that the percentage of disease usually found in worms reared from diseased seed in healthy surroundings is very high; it is next necessary to see what amount of infection worms reared from disease-free seed pick up in highly infective surroundings."

As a rule the percentage of moths infected in the house was about 10 or 12 per cent."

Present condition.—In the course of my evidence before the Indian Tariff Board on 25th February, 1933, it appeared to me that the estimate of total production of 20 lakhs pound of raw silk from 25,000 acres under mulberry in Bengal submitted by me on the basis of Prof. Lefroy's estimate were doubted on the ground that disease-free seeds reared with village seeds get infected and as such lead to serious failures.

In 1915-16 when Prof. Lefroy's investigations were held, the total supply of disease-free seeds was 10,557 kahons. Since then, much headway has been made as the present supply is 40,912 kahons annually (average for 1928-31 for seeds sold from Government nurseries and through selected rearers with examined departmental stock).

Although Prof. Lefroy considered that on an average the yield per acre of mulberry lands in Bengal is 200 maunds, it is a fact that most silk areas in Bengal get 350 maunds of leaf per acre. In dry tracts like Birbhum and Bankura, the yield is a little less about 250 maunds per acre. But as the major area is giving an output of more than 300 maunds, it is reasonable to estimate on the basis of 250 maunds per acre. On this basis the yield of cocoons is 12½ maunds per acre. It is also necessary to consider that the silk content of the selected races have also increased in the course of selection during these years. In 1916-17, the indigenous races were producing one seer of silk from 18 to 20 kahons whereas at present one seer of raw silk is obtained from 12 to 16 kahons. The present yield of the silk-worms is therefore 25 per cent. more than it was in 1916.

The yield from one kahon of seed from Government nurseries in rearers' houses has been found to vary from 100 to 150 kahons or an average of 125 kahons and of village seeds at 30 to 70 kahons or an average of 50 kahons. The output of village seed is therefore 40 per cent. less than of Government nursery seeds.

Estimate of production.

Disease-free seeds.—40,500 kahons of departmental seeds give a production of 125 times, i.e., 50,62,500 seers of green cocoons or 1,26,562 maunds of green cocoons or 9,49,220 lbs. of reeled silk at 7½ lbs. per maund of cocoons. To get this harvest 10,105 acres of mulberry lands are required. For any over estimate the area may be taken to be 11,000 acres.

Village seeds.—For the remaining area of 1,400 acres the rearers now depend on village seeds. The village seed yields an average of 50 times outturn in seer per kahon of seed. In the absence of statistics of actual quantity of village seeds reared and the output of individual rearers from

these seeds, an approximate estimation may be made by reducing the outturn of leaf per acre by 40 per cent. to cover the losses on account of deaths of worms on the basis of the difference of the output of departmental seeds and village seeds. The yield of leaf per acre may thus be taken to be 150 maunds.

14,000 acres yielding 150 maunds of leaf per acre give 2,100,000 maunds of leaf or 4,200,000 seers of cocoons or 105,000 maunds of cocoons or 630,000 lbs. of reeled silk at 6 lbs. per maund of cocoons in place of $7\frac{1}{2}$ lbs. estimated for outturn of selected seeds.

The total yield therefore comes to:—

From production of cocoons from disease-free seeds from 110,000 acres	949,220 lbs.
From village seeds from 14,000 acres	630,000 lbs.
	<hr/> 1,579,220 lbs.

The above will show that the production of raw silk in Bengal may be safely estimated at 20 lakhs pounds of silk as under favourable seasonal conditions, the yield of leaf and production of cocoons will be more.

Government of Assam.

Letter No. 313-E., dated the 8th February, 1933.

I am directed to refer to your letter No. 557, dated the 5th December, 1932, and the subsequent telegram No. 49, dated the 20th January, 1933, and to forward a copy of the report (with six spare copies) submitted by the Superintendent of Sericulture furnishing such information as is available in regard to the sericultural industry in Assam.

2. I am, however, to add that since the statistics of inland rail and river trade were stopped in 1923 this Government have no reliable statistics about the industry concerned. As the Sericultural Superintendent's note shows, the important indigenous silk—muga and eri—do not directly compete with imported silks, and the pat (mulberry) silk industry which is involved in competition with imported silks is relatively small and unimportant. This Government have no reliable information as to the conditions of local manufacture of fabrics from imported silks, and are therefore unable to advise as to the effect of increasing the duty on imported raw silk without increasing those on silk yarn. There is no definite indication of the effect of the reported increase in imports of raw silk. This Government are endeavouring to stimulate the production of local silk, including the mulberry-fed, and would welcome any action which would have the effect of assisting this aim, but they are unable on their present information to recommend any specific measures which would, in consonance with the principles laid down in paragraph 97 of the Report of the Indian Fiscal Commission, be likely to fulfil this purpose. There are no organised associations or bodies interested in the sericultural industry, which is an indigenous cottage occupation in this province.

3. As regards the second questionnaire received with your letter No. 9, dated the 3rd January, 1933, I am to say that as definite statistics are not available, no reply has yet been prepared but one will be prepared so far as possible.

Enclosure.

Answers to the questionnaire in letter No. 557, dated the 5th December, 1932, from the Secretary, Tariff Board, regarding Sericulture Industry in Assam.

The sericulture industry in Assam dates from the time immemorial, in respect of produces specially of two species of silk-worms, viz., Eri or *Attacus ricini* and Muga or *Antherea Assamea*, belonging to the genus

Saturnidae. The *Bombyx Mori* or mulberry silk-worm (called pat in Assam) may have found its way into Assam from China at a time when it spread into Central Asia and some of the European countries. While eri and muga silk-worms are reared without any prejudice by all sections of Hindus and Mussalmans in Assam, the rearing of pat works is looked down as socially and is therefore limited to a small class in Hindu society. There is no prejudice against pat rearing among the Mohammadans, but it is known only to a few families.

3. (1) The silk industry in Assam is a subsidiary occupation. It may be divided into (1) rearing of eri, muga and pat silk-worms; (2) manufacture of yarns; (3) weaving; (4) sale of yarns, cloths and cocoons and (5) export.

The exact number of people engaged in the industry cannot be stated, as rearing of any one kind or all kinds of silk-worms are known to the Assamese people and spinning, reeling and weaving are practised by the womenfolk of the Mussalman and Hindu communities of the Assam Valley. It may, however, be approximately said that some 2 to 2½ lacs of the population in the province is concerned in one or the other form of the industry. To the agricultural population engaged in this subsidiary occupation the average earning per family of six members may be about Rs. 25 per year, while the profits to the middlemen and exporters much exceeds the total amount.

(2) The industry as it exists at present is not properly organised. The persons engaged in it here have mainly to depend on Marwaris for marketing of their produce and in some cases for financial assistance. The value of produces passing annually through their hands amounted to some 28 lakhs of rupees half a decade ago. Although the present annual production is almost as much as before, the transaction has come down to about Rs. 15 lakhs now.

(3) Eri, muga and pat are the species of silk-worms reared in the province. The seeds are procured locally. The Government of Assam sometimes import pat seed only from Japan and France for acclimatisation in the silk farms of the province with the object of introducing improved strains to the village rearers.

(4) Eri silk-worms like mulberry silk-worm are reared indoors, while muga silk-worms are reared out-doors. The chief food plant of eri worms is castor plant leaf (*Ricinus communis*). Leaves of Beseru (*Heteropanax fragrans*) are used in many villages as an important alternative. The principal food plants of muga worms are soom (*Machilus odoratissima*) and sualu (*Tetranthera Monopetala*). Two other plants, mejankori (*Litsea citrata*) and chapa (*Michelia oblonga*) are also used in rearing muga worms. Soom and sualu are found abundantly in the plains and foot of the hills. They are very seldom grown with cultivation. The plantation of castor plant is of some care.

The methods of rearing eri and muga silk-worms are simple. Castor leaves are plucked with stems, tied to a bundle and fed to eri worms over a tray made of split bamboo. Muga layings are hung on branches of soom, sualu, mejankori or chapa when the eggs begin to hatch. The worms are watched day and night, so that birds, wasps and owls cannot damage them. Soom and sualu trees often attain a height of 30 to 50 feet and so the worms are free from the ravages of jackals. The trunks of trees on which muga worms are raised, are encircled with a band of straw of plantain leaf with the double object of preventing the muga worms from coming down to the ground and the ants from going up the tree. As the muga worms come down after eating the leaves of a tree, they are transferred to other trees with good foliage. Over-crowding of worms in a tree is always avoided and when they mature they are picked up at the band. For spinning cocoons, the mature worms of both kinds are put in bundles of branches with dried leaves. The cocoons of eri and muga are detached from the leaves on the fourth or fifth day.

All other operations, mating, oviposition, and disinfection of seeds, of muga, are done indoors. For egg-laying the female moths of moga and eri tied to a thin bundle of straw.

Bombyx teator (Barpat) and *Bombyx fortunatus* (Sarupat) are the two varieties of mulberry silk-worms reared in Assam with leaves of *Morus alba* (*indica* and *multicaulis*) grown into trees from cuttings planted along the boundary or at the back of the homestead land.

(5) The Assam silk growers raise annually two principal broods of muga and three to four broods of eri and pat. The average yield per 100 layings is 5,000 cocoons for muga, 12,000 for eri and 16,000 for pat.

(6) In the case of eri cocoons, moths are allowed to emerge from the whole crop, for the facility of taking correct weight of silk content, boiling and spinning. Generations of muga silk-worm rearing are more often discontinued than not. Every rearer likes to get food muga seed-cocoons for each brood from distant localities and sell his crop as seed-cocoons or stifled cocoons or reel them into yarn. There are few pat rearers in Assam who can manage to grow more than 250 layings of pat during a year with the leaves of trees at his command. For pat and muga, generally three times the number of seed-cocoons are used to obtain a required quantity of layings.

The proportion of seed-cocoons to the reeled pat cocoons is 1 to 53 and to reeled muga cocoons it is 1 to 17. For eri there is no wastage on seeds.

(7) (a) The price of 1,000 seed cocoons of muga is Rs. 5 now, against Rs. 10 a few years ago. The price of 100 layings of pat as well as of Eri is As. 2 to As. 4.

(b) For castor plant leaves and mulberry tree leaves the village rearers incur no expenditure. They grow the food plants at random in their homestead land and when their own trees are exhausted they beg the leaves from persons who can spare them or who have not reared the brood at the time. For Muga rearing a man either hires a food plant area for Rs. 10 to Rs. 15 for a year from its owner or he pays his own land revenue only at the rate of Rs. 3 per acre.

(c) The rearers prepare their appliances themselves with bamboos and trees grown in their own land or obtain the materials from their neighbours.

(d) Labour when employed in Sericulture is more often paid in kind than in coin.

(e) As the village sericulturists do not use any chemicals as disinfectants for houses, seeds and appliances, they do not incur any other expenses than those of journeys specially for purchasing muga seeds. The cost sometimes and with some persons on that score is about Rs. 30 per person, including railway freight of cocoons.

(8) The average price of 1,000 reelable muga cocoons is Rs. 2-8 now, against Rs. 6 in the past; and of one seer of empty eri cocoons (2,000 cocoons) is Re. 1-4, against Rs. 3. The pat cocoons are very seldom sold. The price per 1,000 reelable pat cocoons is As. 5.

Half a seer of excellent muga yarn is obtained from 200 reelable cocoons; $1\frac{3}{4}$ chhataks of pat yarn from 2,000 reelable cocoons of indigenous varieties and from the same number the yield is 3 to 7 chhattaks from the acclimatised varieties introduced by the local Government. 2,000 well developed empty eri cocoons give an outturn of 13 chhataks of hand spun yarn. All kinds of silks are reeled and spun at home with primitive appliances. (A seer is taken as 2 lbs.)

The price per seer of best muga yarn is Rs. 25 now, against Rs. 50; that of pat is Rs. 12 now against Rs. 40 and of eri Rs. 4 against Rs. 14.

(9) In the province no machinery is used for reeling or spinning cocoons. There are indigenous appliances for the purpose and they are worked with hand.

(10 & 11) There are no reliable statistics available on these heads. The Marwaris in the province who deal almost wholly in Assam silks, yarns, cocoons and fabrics—furnish some figures which may be taken as approximate only.

The annual sale of muga yarn in and outside the province is 1,000 maunds, which taken at the average price of Rs. 800 per maund is worth Rs. 8,00,000 at the present market rate. The price of manufactured pieces, besides that of the yarn, is worth Rs. 2,00,000 a year now.

The annual sale of eri yarn is 500 maunds and is equivalent to Rs. 80,000 at Rs. 160 per maund; that of eri pieces is Rs. 4,20,000. The rates and pieces are for the current year.

The total annual production of pat or mulberry silk may now be about 80 maunds and valued at Rs. 36,000. The whole of it is consumed locally.

To the above figures may be added about Rs. 2,00,000 the value of eri and muga pieces used and sold every year locally by the growers themselves.

The information on the wastes of cut muga cocoons, cut pat cocoons, the rejections in reeling muga and pat cocoons and spinning eri cocoons is that they are spun into coarse yarn and woven into pieces which are used by the producers themselves or sold out locally.

As has been said the Marwaris are the main dealers in Assam silks. Some of them send their goods to Calcutta firms for disposal in India or overseas dominions, while others supply the Indian demands through railways, steamers and post offices.

4. (a) Muga and eri silks may be said to be the monopoly of the province. They are not yet produced to a commercial scale in any other part of India. Yet the general trade depression has affected them so adversely that their prices have gone down by more than 50 per cent. This low price coupling with the lessening demand from the consumers are having a reaction on the rearers through the dealers holding large stocks of the commodity. The rearers like other engaged in agricultural pursuits are faced with an unsatisfactory situation, during this time of depression. The import of raw silk is also tending to bring prices to an uneconomic level.

The province of Assam consumes annually mulberry silk worth over two lakhs of rupees, its own share being worth about Rs. 40,000, at the present market rate. Though the quality of Assam pat is in some respects superior to the imported raw silk, its price has, on account of keen competition from all sides come down to the level of imported silk. The influx of cheap silk has acted as an obstacle to the impetus which the Government of Assam has been giving to the development of the industry.

(b) The silk industry of Assam is of considerable economic importance in as much as it engages about 2 to 2½ lakhs of the population of the province, and provides for a trade worth about Rs. 20,00,000 even at this period of trade depression.

In view of the fact that Indian provinces differ in prosperity, need of silken goods, technics of the industry and the ideal of development of the industry a very high tariff on imported raw silk may hit to some extent the handloom weavers and the consumers for some time, yet a substantial tariff is required to give an impetus to the silk industry. A tax of not less than 25 per cent. on all imported silk yarn and cloth seems most desirable at the present time. The whole position can again be reviewed 10 years after the imposition of the tax.

It is perhaps needless to add that the silk industry though a simple, is yet the most useful subsidiary cottage industry in Assam. To give it the impetus and help which it deserves, it may be urged that the tax recommended, when realised should be divided among the provinces having regard to its importance in each province. It should be solely spent for the improvement of the silk industry.

Government of Bombay.

Letter No. 9483-D., dated the 20th February, 1933.

Subject:—ENQUIRY INTO THE SERICULTURAL INDUSTRY.

I am directed by the Government of Bombay (Transferred Departments) to refer to your letter No. 557, dated the 5th December, 1932, on the

subject of the enquiry by the Tariff Board into the Sericultural Industry and to forward herewith for the information of the Board copy of the letter No. I. A. 66-903, dated the 16th February, 1933, from the Director of Industries, Bombay Presidency, together with four copies of each of their accompaniments supplying information with reference to those questions which affect the handloom weaving industry in the Bombay Presidency.

2. The Government of Bombay prefer to defer their opinion on several questions until the Report of the Board is before them. They will be prepared, however, to formulate and communicate to the Board their views in respect of any particular point or points which may arise in the course of the enquiry and on which the Board may specifically desire to have the views of the local Government to assist them in their investigation.

Enclosure.

No. I. A. 66-903.

Office of the Director of Industries,
Old Custom House,
Bombay, 16th February, 1933.

From

P. B. Advani, Esq., M.Sc.Tech., M.I.E., J.P.,
Director of Industries, Bombay,

To

The Secretary to Government,
General Department, Bombay.

Reference:—LETTER FROM THE SECRETARY, TARIFF BOARD, No. 557, DATED THE 5TH DECEMBER, 1932, AND GENERAL DEPARTMENT ENDORSEMENT No. 9483-D., DATED THE 10TH DECEMBER, 1932.

Sir,

I have the honour to invite attention to the reference cited above and, as desired therein, I beg to give in the following paragraphs information required by the Tariff Board in paragraphs 3, 4 and 5 of their letter dated the 5th December, 1932.

2. *Paragraphs 3 and 4.*—There is no sericultural industry in the Presidency of Bombay at present. Consequently, it is not possible to supply the information required by the Board.

3. *Paragraph 5.*—I attach hereto 3 statements. Statement No. I gives information covering a period of 3 years about the prices, estimated annual consumption, etc., of Indian and foreign silk in some hand-weaving centres in the Bombay Presidency. Statement No. II gives similar information about artificial silk. Statement No. III gives detailed cost of production of various cloths in which silk is used.

It will be noted from Statement No. I that in many of the centres in this Presidency foreign silk is used but that the total quantity used has steadily decreased; this in spite of the fact that the price of the imported silk has steadily declined.

From Statement No. II it will be seen that the consumption of artificial silk has steadily increased in this Presidency.

Statement No. III, in which detailed costs of manufacture have been given, will show that the price of silk yarn forms a considerable portion of the total cost of production in many pure silk and mixed cloths produced in this Presidency.

Any substantial increase in the duty on silk yarn will naturally increase substantially the cost of production. It has been pointed out previously that the total consumption of silk yarn has decreased in this Presidency in recent years in spite of the fact that the price of silk has declined

considerably. This is no doubt due to severe trade depression. Wages or earnings of hand weavers during the last few years have gone down and in some centres the reduction is as much as 60 per cent. of the wages prevalent in 1927. It would appear, therefore, that any measures which tend to increase the overall cost of production of silk cloth are likely, owing to severe trade depression, to further reduce the sales of Indian made silk fabrics. This will in turn depress still further the wages or earnings of handloom weavers.

There is no doubt that the sericultural industry is of considerable importance to some of the Provinces in India, specially Kashmere, Bengal, Mysore and Madras. In considering the question of protection of this industry, however, very careful consideration must be given to the effect it will have on the sale of Indian made silk fabrics and the earnings of handloom weavers. In any case if duty is increased on imported raw silk and silk yarn, same should necessarily be done in the case of imported silk fabrics, so that the handloom weaver may not be exposed to unfair competition in connection with those cloths the like of which are also imported.

A further reference is invited to this office letters and enclosures Nos. I. A. 66-904 and I. A. 66-905, dated the 16th February, 1933



सत्यमेव जयते

STATEMENT I.—PURE SILK YARN.

Centre.	Deniers.	Dyed or Grey.	PRICE PER LB.		Total estimated annual consumption by Hand-loom Indian.	Total estimated annual consumption by Hand-loom Foreign.
			Indian.	Foreign.		
1928-29.	Spun Silk.			Rs. A.		Lbs.
Bombay . .	120/2	Grey	..	5 0	..	6,000
	140/2	Grey	..	5 4	..	..
	160/2	Grey	..	6 8	..	..
	210/2	Grey	..	7 0	..	..
Yeola . .	210/2	Dyed	..	11 8	..	47,000 to 50,000
	210/2	Grey	..	10 8	..	..
	160/2	Grey	..	10 0	..	..
	weft. 140/2	Grey	..	5 8	..	72,000 to 80,000
	140/2	Dyed	..	6 8	..	..
	160/2	Grey	..	7 8	..	..
	160/2	Dyed	..	8 0	..	..
	Raw silk. 13/15	Grey	..	6 8	..	2,000
Tatta . .	..	..	..	..	..	..
Ilkal . .	..	..	..	..	..	..
Hubli . .	..	..	..	..	..	..
Dharwar . .	..	..	..	..	..	..
Belgium . .	..	..	..	..	..	..
Surat . .	20/22	Grey	11 0 (Bengal.)	10 0	2,00,000	3,00,000
	13/15	Grey	12 0	..	..	..
	20/22	Grey	15 0 (Kashmere.)	11 8	..	..
	230/2	Grey	..	12 0	..	..
Ahmedabad . .	120/2	Grey	..	6 0	..	..
	20/22	Grey	11 0 (Bengal.)	10 0	10,000	15,000
	20/22	..	15 0 (Kashmere.)	..	..	..
	230/2	..	..	12 0	..	..
	120/2	..	..	6 0	..	..

STATEMENT I.—PURE SILK YARN—*contd.*

Centre.	Deniers.	Dyed or Grey.	PRICE PER LB.		Total estimated annual consumption by Hand-loom Indian.	Total estimated annual consumption by Hand-loom Foreign.
			Indian.	Foreign.		
1930-31.	Spun silk.			Rs. A.		Lbs.
Bombay .	120/2	Grey	..	4 8	..	..
	120/2	Dyed	..	5 8	..	..
	140/2	Grey	..	5 0	..	5,000
	140/2	Dyed	..	6 0	..	..
	160/2	Grey	..	5 8	..	..
	160/2	Dyed	..	6 8	..	..
	210/2	Grey	..	6 0	..	..
	210/2	Dyed	..	7 0	..	..
Yeola .	210/2	Dyed	..	10 8	..	28,000 to 30,000
	210/2	Grey	..	9 8	..	..
	160/2	Grey	..	8 4	..	..
Poona .	140/2	Grey	..	5 8	..	50,000
	140/2	Dyed	..	6 0	..	..
	160/2	Grey	..	6 8	..	..
	160/2	Dyed	..	7 8	..	..
Tatta .	Raw silk. 13/15	Grey	..	6 8	..	2,000
Ilkal .	20/22	Dyed	..	11 4	..	40,000
	16/20	Dyed	12 12	..	5,000	..
Hubli .	20/22	Dyed	..	11 4	..	13,000
	16/20	Dyed	13 12	..	5,000	..
Dharwar .	Charam silk.	Dyed	..	7 8	..	600
Belgaum .	20/22	Dyed	..	11 0	..	11,000
	16/20	Dyed	13 0	..	500	..
Surat .	20/22	Grey	11 0 (Bengal.)	10 0	..	..
	13/15	Grey	11 8	..	2,00,000	2,00,000
	20/22	Grey	14 0 (Kashmere.)	..	..	..
	230/2	Grey	..	11 8	..	..
	120/2	Grey	..	5 8	..	..
Ahmedabad	20/22	Grey	10 8 (Bengal.)	10 0	..	..
	20/22	Grey	14 8 (Kashmere.)	..	8,000	10,000
	230/2	Grey	..	11 12	..	..
	120/2	Grey	..	6 0	..	..
	13/15	Grey	6 8	..	..	..

STATEMENT I.—PURE SILK YARN—*concl'd.*

Centre.	Deniers.	Dyed or Grey.	PRICE PER LB.		Total estimated annual con- sumption by Hand- looms Indian.	Total estimated annual con- sumption by Hand- looms Foreign.
			Indian.	Foreign.		
1932-33.	Spun silk.			Rs. A.		Lbs.
Bombay .	120/2	Grey	..	3 0	..	..
	120/2	Dyed	..	4 0	..	..
	140/2	Grey	..	3 14	..	1,000
	140/2	Dyed	..	4 14	..	..
	160/2	Grey	..	4 8	..	..
	160/2	Dyed	..	5 8	..	..
	210/2	Grey	..	4 14	..	..
	210/2	Dyed	..	5 14	..	..
Yeola .	210/2	Dyed	..	6 0	..	7,000 to
Poona .	140/2	Grey	..	4 8	..	10,000
	140/2	Dyed	..	5 8	..	20,000 to
	160/2	Grey	..	5 0	..	25,000
	160/2	Dyed	..	6 0	..	..
Tatta .	Raw silk.					
	13/15	Grey	..	6 8	..	2,000
Ilkal .	20/22	Dyed	..	10 0	..	40,000
	16/20	Dyed	10 8	..	2,000	..
Hubli .	20/22	Dyed	..	11 4	..	16,000
	16/20	Dyed	11 4	..	2,000	..
Dharwar .	Charam silk.	Dyed	7 8	..	..	600
Belgaum .	20/22	Dyed	..	10 0	..	11,000
	16/20	Dyed	12 0	..	..	..
Surat .	20/22	Grey	5 6	4 4	..	..
	(Bengal.)			(China.)		
	13/15	Grey	5 14	..	1,00,000	1,50,000
	14/16	Grey	..	4 12	..	..
	20/22	Grey	7 7	..	..	..
	(Kashmere.)			(Japan.)		
	230/2	Grey	..	5 8	..	..
	210/2	Grey	..	5 0	..	..
	160/2	..	..	4 12	..	..
	140/2	..	..	3 12	..	..
	120/2	..	..	3 8	..	..
	60/2	..	..	3 8	..	..
				(cord.)		
Ahmedabad .	20/22	Grey	5 8	4 8	..	..
	20/22	Grey	(Bengal.) 7 8	..	5,000	8,000
	230/2	Grey	(Kashmere.)	5 8	..	..
	210/2	Grey	..	5 1	..	..
	160/2	Grey	..	4 14	..	..
	140/2	Grey	..	3 14	..	..
	120/2	Grey	..	3 8	..	..
	60/2	Grey	..	3 8	..	..
	14/16	Grey	..	4 12	..	..
	13/15	Grey	6 0	..	..	..

STATEMENT II. ARTIFICIAL SILK YARN.

Centre.	1928-29.				1930-31.				1932-33.			
	Deniers.	Dyed or Grey.	Price per lb.	Total estimated annual consumption by Hand-loom.	Deniers.	Dyed or Grey.	Price per lb.	Total estimated annual consumption by Hand-loom.	Deniers.	Dyed or Grey.	Price per lb.	Estimated annual consumption by Hand-loom.
Bombay	250	Dyed	Rs. A. P. 2 0 0	Lbs. 2,000	250	Dyed	Rs. A. P. 1 4 0	Lbs. 10,000	250	Dyed	Rs. A. P. 0 15 6	Lbs. 25,000 to 30,000
	200	Dyed	2 4 0	..	200	Dyed	1 6 0	..	200	Dyed	0 15 9	..
	160	Dyed	2 8 0	..	160	Dyed	1 7 0	..	160	Dyed	1 1 0	..
	150	Dyed	3 0 0	..	150	Dyed	1 8 0	..	150	Dyed	1 1 0	..
									450	Dyed	0 15 0	..
Nasik . .									300	Dyed	0 15 0	..
									180	Dyed	1 0 0	..
									180/2	Dyed	1 5 0	..
									150/2	Dyed	1 6 0	..
	150 Japan AAA	Dyed	3 4 0	250	150	Dyed	1 12 0	350	150	Dyed	1 4 0	600
	150	Grey	3 0 0	..	150	Grey	1 8 0	..	150	Grey	1 2 0	..

Yeola	.	.	.	not used	..	..	..	not used	..	150 Japan AAA	Dyed	1 4 0	100
Poona	.	.	.	3 2 0	1,200	150	Dyed	1 11 0	1,500	150	Dyed	1 2 0	1,800 to 2,000
Tatta	.	.	.	1 4 0	300	300	Grey	1 2 0	100	300	Grey	1 1 0	480
Hubli	.	.	.	..	..	150	Grey	1 0 0	1,80,000	150	Grey	1 0 0	1,90,000
Surat	.	.	.	3 8 0	5,000	150	Grey	2 8 0	12,000	150	Dyed	1 2 0	30,000
				3 0 0	..	250	Grey	2 4 0	..	250	Dyed	1 0 0	..
				..	..	300	Grey	2 0 0	..	300	Dyed	1 0 6	..
				3 12 0	2,000	150	Grey	2 12 0	15,000	150	Grey	1 1 0	10,000
				3 8 0	..	250	Grey	2 8 0	..	250	Grey	1 0 0	..
										300	Grey	0 14 6	..

Locally dyed.

10th locally dyed at Rs. 2 per lb.

STATEMENT III.—

Name of cloth.	Length per piece.	Width per piece.	Weight per piece.	COTTON YARN PER PIECE.			IMPORTED SILK YARN.		
				Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.
	Yds.	Inches.	Lb. oz.	Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.
1928-29.									
BOMBAY.									
Chandrakala Sari with Squares.	9	50	1 8	1 0	60	3 8 0	0 8	210/2	10 0 0
Plain Rasta Sari	9	50	1 8	1 0	60	3 0 0	0 8	210/2	10 0 0
Bodice Cloth	..	..	..	..	..	..	..	..	..
Ditto	..	..	..	..	..	..	..	..	..
Ditto	..	..	..	..	..	..	..	..	..
NASIK.									
Silk Bordered Sari with Squares.	8	42	1 6	1 2	32 & 40	1 12 0	0 2	210/2	2 8 0
Mirani Sari with Silk Borders.	8	42	1 6	1 2	32 & 40	1 12 0	0 2	210/2	2 8 0
YEOLA.									
Paithani	9	50	2 10	0 10*	500*	27 0 0	210/2	2 0	34 0 0
Pitamber	8	45	1 4	..	..	..	1 4	210/2	22 0 0
Silk Sari with Squares	8	45	1 4	..	..	..	1 4	210/2	22 0 0
Rasta Sari	8	45	1 4	..	..	..	1 4	210/2	22 0 0
Alpak-Patal	8½	48	1 10	1 4	20	1 0 0	0 6	210/2	7 0 0
Bodice cloth with gold thread border.	2½	38	0 8	0 2*	500*	4 8 0	0 6	210/2	7 0 0
Kad	9	45	1 4	..	..	..	1 4	210/2	22 0 0
Kad	5	45	0 12	..	..	..	0 12	210/2	11 0 0
Silk Phetas	8	38	0 12	..	..	..	0 10	210/2	10 0 0
POONA.									
Buttedar Paithani	9	50	3 8	1 8	Gold thread. 400	60 0 0	2 0	210/2 160/2	40 0 0
Plain Paithani	9	50	1 5	0 5	400	9 0 0	1 0	210/2 160/2	20 0 0
Shalu	9	50	1 5	0 5	400	9 0 0	1 0	210/2 160/2	20 0 0
Shella, with gold thread palav.	4	54	2 0	1 8	400	60 0 0	0 8	210/2 160/2	10 0 0
Pitamber or Kad	5	48	1 0	0 3	400	6 0 0	0 13	210/2 160/2	14 0 0
Buttedar Silk Khan	3	36	0 10	0 5	400	9 0 0	0 5	210/2 160/2	5 0 0
Plain silk Bodice cloth	3	36	0 8	0 3	400	6 0 0	0 5	210/2 160/2	5 0 0

* Gold thread is used.

CLOTH.

INDIAN SILK.			ARTIFICIAL SILK.			Wages.	Days for weaving.	Cost of production.	Selling price.
Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.				
Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
..	3 0 0	3	16 8 0	18 0 0
..	2 0 0	2	15 0 0	17 0 0
..
..
..
..	0 2	150	0 3 0	1 8 0	3	5 15 0	7 0 0
..	0 2	150	0 3 0	1 8 0	3	5 15 0	7 0 0
..	22 0 0	15	83 0 0	90 to 95
..	5 0 0	8	27 0 0	30 0 0
..	5 0 0	8	27 0 0	29 0 0
..	5 0 0	8	27 0 0	29 0 0
..	2 4 0	8	10 4 0	11 8 0
..	2 0 0	5	13 8 0	15 8 0
..	4 0 0	6	26 0 0	30 0 0
..	2 0 0	3	13 0 0	15 0 0
..	4 0 0	4	14 0 0	15 0 0
..	15 0 0	15	115 0 0	125 to 130
..	5 0 0	8	34 0 0	36 0 0
..	5 0 0	8	34 0 0	36 0 0
..	20 0 0	20	90 0 0	100 0 0
..	2 0 0	5	22 0 0	24 0 0
..	2 8 0	4	16 8 0	17 8 0
..	2 0 0	4	13 0 0	14 0 0

STATEMENT III.—

Name of cloth.	Length per piece.	Width per piece.	Weight per piece.	COTTON YARN PER PIECE.			IMPORTED SILK YARN.		
				Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.
	Yds.	Inches.	Lb. oz.	Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.
1928-29—contd.									
TATTA.									
Lungi	12	27	1 12	0 12	20	0 12 0	1 0	..	6 8 0
ILKAL.									
Kalichandrakala Sari, Plain body, 3½".	..	..	..	..	..	..	..	..	..
Silk Kaddi Sari, Topa Body, 3½" border.	..	..	..	..	..	..	..	..	..
Kalichandrakala, Topa Body, 3½" border.	..	..	..	..	..	..	..	..	..
Silk Basta Sari, Topa Body, 3½" border.	..	..	..	..	..	..	..	..	..
RUBLI.									
Kalichandrakala plain body, 3" border.	9	..	..	..	..	..	..	..	..
Silk Basta Sari, Topa Body, 3" border.	..	..	..	..	..	..	..	..	..
Silk Kaddi Sari, Topa Body, 3" border.	..	..	..	..	..	..	..	..	..
Khans of 9" Border of silk	..	..	..	..	..	..	..	..	..
Khans of 6" Border of Artificial silk.	..	..	..	..	..	..	..	..	..
DHARWAR.									
Charam silk Border sari 2½".	..	..	..	..	..	..	..	..	..
BELGAUM.									
Bodice cloth of 4" silk border.	..	..	..	..	..	..	..	..	..
Sari, silk Border, 3½" plain body, with cotton yarn Kaddi.	..	..	..	..	..	..	..	..	..
SURAT.									
Kinkhab No. I	5	27	3 0	2 0	Gold thread. 1,200	80 0 0	1 0	210/2	25 0 0
Kinkhab No. II	5	27	3 0	1 0	1,200	40 0 0	2 0	160/2	40 0 0
Silk Sari with gold thread Border.	5	50	1 2	0 2	1,200	5 0 0	1 0	160/2	25 0 0
Silk Khan	5	36	0 14	0 2	1,200	5 0 0	..	..	..
Silk Satin	10	28	1½	..	..	..	..	..	..

CLOTH—*contd.*[illegible]

STATEMENT III.—

Name of cloth.	Length per piece.	Width per piece.	Weight per piece.	COTTON YARN PER PIECE.			IMPORTED SILK YARN.		
				Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.
	Yds.	Inches.	Lb. oz.	Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.
1928-29—concl'd.									
SURAT—cont'd.									
Silk Coating	20	28	5 0	..	..	..	5 0	160/2	55 0 0
Silk Shirting	20	28	3 8	..	..	..	3½	210/2	39 0 0
Muga Silk Sari	9	50	1½	..	..	..	1½	140/2	18 0 0
Silk Lungis	3	45	½	..	..	..	½	140/2	6 0 0
No. III Kinkhab with artificial silk.	..	..	..	..	..	..	..	..	..
AHMEDABAD.									
Kinkhab	5	28	3 0	2 0	Gold thread. 1,600	85 0 0	1 0	230/2	30 0 0
Silk Pitamber	5	50	1 2	0 2	1,600	7 0 0	1 0	210/2	25 0 0
Silk Khan	5	36	0 14	0 2	1,600	7 0 0	..	..	..
Silk Satin	10	28	1 8	..	..	..	..	..	..
Silk Coating	20	28	3 0	..	..	..	5 0	160/2	55 0 0
Silk shirting	20	28	3 0	..	..	..	3 0	210/2	36 0 0
Silk Lungi	3	45	0 8	..	..	..	0 8	140/2	6 0 0
1930-31.									
BOMBAY.									
Chandrakala Sari with Squares.	9	50	1 8	1 0	60	2 8 0	0 8	210/2	7 8 0
Plain Rasta Sari . . .	9	50	1 8	1 0	60	2 0 0	0 8	210/2	7 8 0
Bodice Cloth . . . .	..	..	..	..	..	..	..	..	..
Ditto . . . .	..	..	..	..	..	..	..	..	..
Ditto . . . .	..	..	..	..	..	..	..	..	..
NASIK.									
Silk Bordered Sari with Squares.	8	42	1 6	1 2	32 & 40	1 10 6	0 2	210/2	1 14 0
Mirani Sari with Silk Borders.	8	42	1 6	1 2	32 & 40	1 10 6	0 2	210/2	1 14 0
YEOLA.									
Paithani	9	50	2 10	0 10*	500*	24 0 0	2 0	160/2	20 0 0
Pitamber	8	45	1 4	..	..	..	1 4	160/2	12 8 0
Silk Sari with Squares .	8	45	1 4	..	..	..	1 4	160/2	12 8 0
Rasta Sari	8	45	1 4	..	..	..	1 4	160/2	12 8 0

* Gold thread is used.

CLOTH—contd.

INDIAN SILK.			ARTIFICIAL SILK.			Wages.	Days for weaving.	Cost of production.	Selling price.
Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.				
Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
..	5 0 0	5	60 0 0	65 0 0
..	5 0 0	5	44 0 0	50 0 0
..	2 0 0	2	20 0 0	25 0 0
..	1 0 0	1	7 0 0	8 0 0
..
..	40 0 0	30	155 0 0	180 0 0
..	13 0 0	8	45 0 0	50 0 0
0 12	20/22	20 0 0	..	..	..	10 0 0	5	37 0 0	40 0 0
1 8	20/22	25 0 0	..	..	..	6 0 0	4	31 0 0	35 0 0
..	5 0 0	5	60 0 0	70 0 0
..	5 0 0	5	41 0 0	46 0 0
..	1 0 0	1	7 0 0	8 0 0
..	2 8 0	3	12 8 0	14 0 0
..	1 8 0	2	11 0 0	12 0 0
..
..
..
..
..	0 2	150	0 2 6	1 4 0	3	4 15 0	6 0 0
..	0 2	150	0 2 6	1 4 0	3	4 15 0	6 0 0
..	12 0 0	15	56 0 0	60 to 65
..	4 0 0	8	16 8 0	20 0 0
..	4 0 0	8	16 8 0	20 0 0
..	4 0 0	8	16 8 0	18 0 0

STATEMENT III.—

Name of cloth.	Length per piece.	Width per piece.	Weight per piece.	COTTON YARN PER PIECE.			IMPORTED SILK YARN.		
				Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.
	Yds.	Inches.	Lb. oz.	Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.
1930-31—contd.									
YEOLA—contd.									
Alpak-Patal	8½	48	1 4	1 4	20	0 12 0	0 6	160/2	5 0 0
Bodice cloth with gold thread border.	2½	38	0 8	0 2*	500*	3 8 0	0 6	160/2	5 0 0
Kad	9	45	1 4	..	..	..	1 4	160/2	12 8 0
Kad	5	45	0 12	..	..	..	0 12	160/2	7 8 0
Silk Phetas	8	38	0 12	..	..	..	0 10	160/2	8 10 0
POONA.									
Buttedar Paithani . .	9	50	3 8	1 8	Gold thread. 400	58 0 0	2 0	210/2 160/2	36 0 0
Plain Paithani . . .	9	50	1 5	0 5	400	9 0 0	1 0	210/2 160/2	18 0 0
Shalu	9	50	1 5	0 5	400	9 0 0	1 0	210/2 160/2	18 0 0
Shella with gold thread palav.	4	54	2 0	1 8	400	60 0 0	0 8	210/2 160/2	9 0 0
Pitambar or Kad . .	5	48	1 0	0 3	400	6 0 0	0 13	210/2 160/2	14 0 0
Buttedar Silk Khan .	3	36	0 10	0 5	400	9 0 0	0 5	210/2 160/2	5 0 0
Plain silk Bodice cloth .	3	36	0 8	0 3	400	6 0 0	0 5	210/2 160/2	4 8 0
TATTA.									
Lungi	12	27	1 12	0 12	20	0 12 0	1 0	..	6 8 0
ILKAL.									
Kalichandrakala Sari, Plain body, 3½" .	9	50	1 4	1 0	60	1 12 0	0 4	20/22	2 18 0
Silk Kaddi Sari, Topa Body, 3½" border.	9	50	1 4	0 12	60	1 5 0	0 8	20/22	5 10 0
Kalichandrakala, Topa Body, 3½" border.	9	50	1 5	1 0	60	1 12 0	0 5	20/22	3 8 3
Silk Rasta Sari, Topa Body, 3½" border.	9	50	1 6	0 14	60	1 8 6	0 8	20/22	5 10 0
HUBLI.									
Kalichandrakala plain body, 3" border.	9	45	1 4	1 0	60	2 0 0	..	..	..
Silk Rasta Sari, Topa Body, 3" border.	9	45	1 4	0 12	60	1 8 0	..	..	..

* Gold thread is used.

CLOTH—contd.

INDIAN SILK.			ARTIFICIAL SILK.			Wages.	Days for weaving.	Cost of production.	Selling price.
Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.				
Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
..	2 0 0	8	7 12 0	9 12 0
..	1 12 0	5	10 4 0	11 4 0
..	3 0 0	6	15 8 0	18 0 0
..	2 8 0	3	9 8 0	10 8 0
..	1 8 0	3	10 2 0	11 2 0
..	14 0 0	15	108 0 0	115 0 0
..	5 0 0	8	32 0 0	34 0 0
..	5 0 0	8	32 0 0	34 0 0
..	18 0 0	20	87 0 0	90 0 0
..	2 0 0	4	22 0 0	24 0 0
..	2 8 0	4	16 8 0	17 8 0
..	1 8 0	4	12 0 0	12 8 0
..	4 8 0 weaving. 1 8 0 dyeing.	6 to 7	13 4 0	16 0 0
..	3 4 0	6	7 13 0	8 4 0
..	4 10 0	8	11 9 6	12 4 0
..	3 10 0	7	8 14 3	9 8 0
..	4 12 0	8	11 14 6	12 8 0
0 4	16/20	3 7 0	..	..	..	3 4 0	7	8 11 0	9 0 0
0 8	16/20	6 14 0	..	..	..	4 14 0	9	13 4 0	13 10 0

STATEMENT III.—

Name of cloth.	Length per piece.	Width per piece.	Weight per piece.	COTTON YARN PER PIECE.			IMPORTED SILK YARN.		
				Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.
	Yds.	Inches.	Lb. oz.	Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.
1930-31—contd.									
HUBLI—contd.									
Silk Kaddi Sari, Topa Body, 3" border.	9	45	1 4	0 10	60	1 4 0	..	..	..
Khans of 9" Border of silk	35 Khans of 20" each.	32	3 11	1 12	40	0 15 0	1 0	20/22	11 4 0
				0 10 warp.	50	2 0 6	0 5 weft.	20/22	3 8 3
Khans of 6" Border of Artificial silk.	44 Khans of 20" each.	32	6 9	2 9	40	2 8 6	..	..	..
				1 0	160/2 waste silk.	4 6 0	..	..	..
DHARWAR.									
Charam silk Border sari 2½".	8	42	2 3	2 0	20 & 30	1 12 0	0 3	..	1 6 6
BELGAUM.									
Bodice cloth of 4" silk border.	19	32	2 4	1 8	60	3 3 0	0 12	20/22	8 4 0
Sari, Silk Border 3¼", plain body, with cotton yarn Kaddi.	9	50	1 8	1 4	60	2 10 6	0 4	20/22	2 12 0
SURAT.									
					Gold thread.				
Kinkhab No. I . . .	5	27	3 0	2 0	1,200	80 0 0	1 0	210/2	20 0 0
Kinkhab No. II . . .	5	27	3 0	1 0	1,200	40 0 0	2 0	180/2	35 0 0
Silk Sari with gold thread Border.	5	50	1 2	0 2	1,200	5 0 0	1 0	160/2	22 0 0
Silk Khan . . .	5	36	0 14	0 2	1,200	5 0 0	..	..	..
Silk Satin . . .	10	28	1½	..	..	..	..	..	..
Silk Coating . . .	20	28	5 0	..	..	..	5 0	160/2	50 0 0
Silk Shirting . . .	20	28	3 8	..	..	..	3 0	210/2	35 0 0
Muga Silk Sari . . .	9	50	2 0	..	..	..	2 0	140/2	18 0 0
Silk Lungis . . .	3	45	½	..	..	..	½	210/2	4 0 0
No. III Kinkhab with artificial silk.	..	..	..	..	..	..	..	..	..
AHMEDABAD.									
					Gold thread.				
Kinkhab . . .	5	28	3 0	2 0	1,600	85 0 0	1 0	230/2	28 0 0
Silk Pitamber . . .	5	50	1 2	0 2	1,600	6 0 0	1 0	160/2	22 0 0

CLOTH—contd.

INDIAN SILK.			ARTIFICIAL SILK.			Wages.	Days for weaving.	Cost of production.	Selling price.
Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.				
Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
0 10	16/20	8 9 6	..	..	..	4 14 0	9	14 11 6	15 2 0
..	12 0 0	30	29 11 9	30 4 0
..	2 0	150	2 4 0	9 0 0	24	18 2 6	19 0 0
..	1 8 0	5	4 10 6	5 0 0
..	9 0 0	14	20 7 0	20 14 0
..	3 8 0	6	8 14 6	9 2 0
..	40 0 0	25	140 0 0	160 0 0
..	25 0 0	15	100 0 0	110 0 0
..	10 0 0	5	37 0 0	42 0 0
0 12	20/22	18 0 0	..	..	..	7 8 0	5	30 8 0	32 0 0
1 1/4	20/22	16 0 0	..	..	..	5 0 0	4	21 0 0	25 0 0
..	5 0 0	5	55 0 0	60 0 0
..	5 0 0	5	40 0 0	45 0 0
..	2 0 0	2	20 0 0	22 0 0
..	1 0 0	1	5 0 0	6 0 0
..
..	30 0 0	30	143 0 0	160 0 0
..	10 0 0	8	38 0 0	45 0 0

STATEMENT III.—

Name of cloth.	Length per piece.	Width per piece.	Weight per piece.	COTTON YARN PER PIECE.			IMPORTED SILK YARN.		
				Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.
	Yds.	Inches.	Lb. oz.	Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.
<i>1930-31—concl.</i>									
AHMEDABAD—contd.									
Silk Khan . . .	5	36	0 14	0 2	11,600	6 0 0	..	..	..
Silk Satin . . .	10	28	1 8	..	..	..	..	..	..
Silk Coating . . .	20	28	5 0	..	..	..	5 0	160/2	50 0 0
Silk shirting . . .	20	28	3 8	..	..	..	3 8	210/2	35 0 0
Silk Lungi . . .	3	45	0 8	..	..	..	0 8	210/2	4 0 0
<i>1932-33.</i>									
BOMBAY.									
Chandrakala Sari with Squares.	..	..	..	..	..	..	..	..	..
Plain Rasta Sari . .	9	50	1 4	1 0	40	2 0 0	0 4	210/2	2 8 0
Bodice Cloth . . .	10	32	0 12	0 6	64	1 8 0	..	..	..
Ditto . . .	8	32	1 0	0 8	64	2 0 0	..	..	..
Ditto . . .	9½	32	1 0	0 8	80	2 0 0	..	..	..
NASIK.									
Silk Bordered sari with Squares.	8	42	1 6	1 2	32/40	1 8 0	0 2	40/2*	1 4 0
Mirani Sari with Silk Borders.	8	42	1 6	1 2	32/40	1 8 0	0 2	40/2	1 4 0
YEOLA.									
Paithani . . .	9	50	2 10	0 10	500†	24 0 0	2 0	210/2	17 8 0
Pitamber . . .	8	45	1 4	..	..	..	1 4	210/2	11 0 0
Silk Sari with Squares .	8	45	1 4	..	..	..	1 4	210/2	11 0 0
Rasta Sari . . .	8	45	1 4	..	..	..	1 4	210/2	11 0 0
Alp-k-Patal . . .	8½	48	1 4	1 4	20	0 11 0	0 6	210/2	3 8 0
Bodice cloth with gold thread border.	2½	38	0 8	0 2	500†	3 0 0	0 6	210/2	3 8 0
Kad . . .	..	..	..	..	..	..	..	..	..
Kad . . .	..	..	..	..	..	..	..	..	..
Sil ¹ Phetas . . .	..	..	..	..	..	..	..	..	..

* Re-reeled.

† Gold thread is used.

N.B.—Kads and Phetas not produced in 1932-33 in the absence of demand.

CLOTH—contd.

INDIAN SILK.			ARTIFICIAL SILK.			Wages.	Days for weaving.	Cost of production.	Selling price.
Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.				
Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
0 12	20/22	18 0 0	..	..	..	7 0 0	5	31 0 0	35 0 0
1 8	20/22	16 0 0	..	..	..	6 0 0	5	22 0 0	30 0 0
..	5 0 0	5	55 0 0	60 0 0
..	5 0 0	5	40 0 0	45 0 0
..	1 0 0	1	5 0 0	6 8 0
..
..	1 8 0	2	6 0 0	7 0 0
..	0 6	150	0 8 0	1 0 0	1	3 0 0	4 0 0
..	0 8	150	0 10 0	1 0 0	1	3 10 0	4 8 0
..	0 8	150	0 10 0	1 2 0	1	3 12 0	4 12 0
..	0 2	150	0 2 0	1 0 0	2†	3 14 0	4 8 0
..	0 2	150	0 2 0	1 0 0	2	3 14 0	4 8 0
..	8 0 0	15	49 8 0	55 0 0
..	2 0 0	6	13 0 0	15 0 0
..	2 0 0	6	13 0 0	15 0 0
..	2 0 0	6	13 0 0	15 0 0
..	1 8 0	6	5 11 0	7 0 0
..	1 4 0	4	7 12 0	8 0 0
..
..
..

† On flyshuttle looms.

STATEMENT III.—

Name of cloth.	Length per piece.	Width per piece.	Weight per piece.	COTTON YARN PER PIECE.			IMPORTED SILK YARN.		
				Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.
	Yds.	Inches.	Lb. oz.	Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.
1932-33—contd.									
POONA.									
Buttedar Paithani	9	50	3 8	1 8	400*	60 0 0	2 0	210/2	26 0 0
Plain Paithani	9	50	1 5	0 5	400*	9 0 0	2 0	210/2	12 0 0
Shalu	9	50	1 5	0 5	400*	9 0 0	2 0	210/2	12 0 0
Shells with gold thread palav.	4	54	2 0	1 8	400*	60 0 0	0 8	210/2	6 0 0
Pitamber or Kad	5	48	1 0	0 3	400*	6 0 0	0 13	210/2	9 0 0
Buttedar Silk Khan	3	36	0 10	0 2	400*	4 12 0	0 8	210/2	6 0 0
Plain silk Bodice cloth	3	36	0 8	0 3	400*	6 0 0	0 5	210/2	3 0 0
TATTA.									
Lungi	12	27	0 12	0 12	20	0 12 0	1 0	..	6 8 0
ILKAL.									
Kalichandrakala Sari, Plain body, 3½"	9	50	1 4	1 0	60	1 12 0	0 4	20/22	2 13 0
Silk Kaddi Sari, Topa Body, 3½" border.	9	50	1 4	0 12	60	1 3 6	0 8	20/22	5 0 0
Kalichandrakala, Topa Body, 3½" border.	9	50	1 5	1 0	60	1 10 0	0 5	20/22	3 2 0
Silk Rasta Sari, Topa Body, 3½" border.	9	50	1 6	0 14	60	1 7 0	0 8	20/22	5 0 0
HUBLI.									
Kalichandrakala, plain body, 3" border.	9	45	1 4	1 0	60	1 14 0	..	..	..
Silk Rasta Sari, Topa Body, 3" border.	9	45	1 4	0 12	60	1 6 6	..	..	..
Silk Kaddi Sari, Topa Body, 3" border.	9	45	1 4	0 10	60	1 2 9	..	..	..
Khans of 9" Border of silk	35 khans of 20" each.	32	3 11	1 12	40	2 0 6	1 0	20/22	11 4 0
				weft. 0 10	50	0 15 0	0 5 weft.	20/22	3 8 3
Khan of 8" Border of Arti- ficial silk.	44 khans of 20" each.	32	5 9	2 9	40	2 8 6	..	..	..
				1 0	160/2 waste silk.	4 6 0	..	..	..

* Gold thread is used.

CLOTH—contd.

INDIAN SILK.			ARTIFICIAL SILK.			Wages.	Days for weaving.	Cost of production.	Selling price.
Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.				
Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
..	8 6 0	15	94 0 0	95 0 0
..	2 8 0	8	23 8 0	25 0 0
..	2 8 0	8	23 8 0	25 0 0
..	12 0 0	20	78 0 0	80 0 0
..	1 8 0	4	16 8 0	17 8 0
..	4 0 0	4	14 12 0	15 8 0
..	1 0 0	4	10 0 0	11 0 0
..	4 8 0 weaving. 1 8 0 dyeing.	6 to 7	13 4 0	16 0 0
..	3 4 0	6	7 6 0	8 0 0
..	4 10 0	8	10 13 6	12 0 0
..	3 10 0	7	8 6 0	9 4 0
..	4 12 0	8	11 3 0	12 4 0
0 4	16/20	2 13 0	..	..	..	3 4 0	7	7 15 0	8 4 0
0 8	16/20	5 10 0	..	..	..	4 14 0	9	11 14 6	12 4 0
0 10	16/20	7 0 6	..	..	..	4 14 0	9	13 1 3	13 8 0
..	12 0 0	30	29 11 9	30 2 0
..	2 0	150	2 4	9 0 0	24	18 2 6	18 12 0

STATEMENT III.—

Name of cloth.	Length per piece.	Width per piece.	Weight per piece.	COTTON YARN PER PIECE.			IMPORTED SILK YARN.		
				Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.
	Yds.	Inches.	Lb. oz.	Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.
1932-33—concl'd.									
DHARWAR.									
Charam silk Border Sari 2½"	8	42	2 3	2 0	20 32	1 12 0	0 3	..	1 6 6
BELGAUM.									
Bodiee cloth of 4" silk border.	19	32	2 4	1 8	60	3 0 0	0 12	20/22	7 8 0
Sari, silk Border 3½", plain body, with cotton yarn Kaddi.	9	50	1 8	1 4	60	2 8 0	0 4	20/22	2 8 0
SURAT.									
Kinkhab No. I . . .	5	27	3 0	2 0	1,200*	80 0 0	1 0	210/2	20 0 0
Kinkhab No. II . . .	5	27	3 0	1 0	1,200*	40 0 0	2 0	160/2	22 0 0
Silk Sari with goldthread Border.	5	50	1 2	0 2	1,200*	5 0 0	1 0	210/2	20 0 0
Silk Khan . . .	5	36	0 14	0 2	1,200*	5 0 0	..	..	..
Silk Satin . . .	10	28	1½	..	..	..	..	..	..
Silk Coating . . .	20	28	5 0	..	..	..	5 0	160/2	25 0 0
Silk Shirting . . .	20	28	3 8	..	..	..	3 8	210/2	17 8 0
Muga Silk Sari . . .	9	50	2 0	..	..	..	2 0	210/2	12 0 0
Silk Lungis . . .	3	45	½	..	..	..	½	210/2	3 0 0
No. III Kinkhab with artificial silk.	5	27	2 0	..	..	..	1 0	210/2	20 0 0
AHMEDABAD.									
Kinkhab . . .	5	28	3 0	2 0	1,600*	82 0 0	1 0	230/2	25 0 0
Silk Pitamber . . .	5	50	1 2	0 2	1,600*	6 0 0	1 0	160/2	20 0 0
Silk Khan . . .	5	36	0 14	0 2	1,600*	6 0 0	..	..	..
Silk Satin . . .	10	28	1 8	..	..	..	..	..	..
Silk Coating . . .	20	28	5 0	..	..	..	5 0	160/2	25 0 0
Silk Shirting . . .	20	28	3 8	..	..	..	3 8	210/2	16 0 0
Silk Lungi . . .	3	45	0 8	..	..	..	0 8	210/2	3 0 0

* Gold thread is used.

CLOTH—concl'd.

INDIAN SILK.			ARTIFICIAL SILK.			Wages.	Days for weaving.	Cost of production.	Selling price.
Weight.	Counts.	Price including cost of labour, etc.	Weight.	Counts.	Price including cost of labour, etc.				
Lb. oz.		Rs. A. P.	Lb. oz.		Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
..	1 8 0	5	4 10 6	4 14 0
..	9 0 0	14	19 8 0	19 8 0
..	3 8 0	6	8 8 0	8 8 0
..	30 0 0	25	130 0 0	150 0 0
..	15 0 0	15	77 0 0	80 0 0
..	5 0 0	5	30 0 0	32 0 0
0 12	20/22	10 0 0	..	..	..	4 0 0	4	19 0 0	20 0 0
1 ½	20/22	10 0 0	..	..	..	4 0 0	4	14 0 0	15 0 0
..	5 0 0	5	30 0 0	32 0 0
..	5 0 0	5	22 8 0	25 0 0
..	2 0 0	2	14 0 0	15 0 0
..	1 0 0	1	4 0 0	4 8 0
..	1 0	150	2 0 0	8 0 0	6	30 0 0	35 0 0
..	25 0 0	25	132 0 0	140 0 0
..	5 0 0	5	31 0 0	35 0 0
0 12	20/22	11 0 0	..	..	..	4 0 0	4	21 0 0	25 0 0
1 8	20/22	11 0 0	..	..	..	5 0 0	4	16 0 0	20 0 0
..	5 0 0	5	30 0 0	32 0 0
..	5 0 0	5	21 0 0	24 0 0
..	1 0 0	1	4 0 0	4 8 0

His Exalted Highness the Nizam's Government.

Letter No. 1218-P., dated the 18th February, 1933, from the Hon'ble the Resident at Hyderabad.

SERICULTURAL INDUSTRY IN THE HYDERABAD STATE.

With reference to the correspondence ending with your letter No. 11, dated the 3rd January, 1933, on the above subject, I am directed to forward herewith a copy of letter No. 141-P., dated the 30th January, 1933 (with six spare copies), from the Secretary to H. E. H. the Nizam's Government in the Commerce and Industry Department on the above subject.

Enclosure.

No. 114-P.

Commerce and Industries Secretariat,
H. E. H. the Nizam's Government,
Hyderabad (Deccan), 30th January, 1933.

From

B. A. Collins, Esq., C.I.E., I.C.S.,
Director General and Secretary to Government,
Department of Commerce and Industry,
Hyderabad,

To

The Secretary to Government,
Political Department,
H. E. H. the Nizam's Government,
Hyderabad.

Subject:—INFORMATION REQUIRED BY THE TARIFF BOARD REGARDING THE SERICULTURAL INDUSTRY IN THE HYDERABAD STATE.

Sir,

With reference to your letter No. 14275, dated the 18th December, 1932, enclosing a copy of a letter from the Tariff Board received through the Residency regarding the enquiry which the Tariff Board are now making into the position of the indigenous sericultural industry, I am directed to reply as follows:—

2. There is practically no sericulture in Hyderabad State. A little tasar silk is produced, but the amount is negligible and it could not form any reason for imposing a duty on imported raw silk.

3. The State, however, is gravely concerned by the proposal to put an import duty on raw silk or raw yarn. There is an important handloom industry, which produces silk piecegoods and mixed piecegoods of silk and cotton. No figures showing the imports of raw silk, silk yarn and silk piecegoods separately are available before 1340 F., i.e., the period from October 6th, 1930, to October 5th, 1931. The figures for this year and the year succeeding are given in the enclosed statement. Only figures for value are available and not for quantities but it appears from the total imports under the head "silk" (which previously included raw silk, silk yarn and piecegoods) for former years that there has been a considerable falling off in imports during the last two years. It is clear from these figures that there is a substantial industry dependent on the use of raw silk and silk yarn imported from outside the State. This industry does not suffer to a great extent from direct competition from piecegoods imported from out-

side British India, because the piecegoods woven mainly consist of saris, but the indirect competition due to the import of foreign woven silk goods is always felt. Heavy silk saris, either figured or adorned with gold lace are less and less worn by the people, who are now turning their attention to new styles of clothing and are attracted by all kinds of new types of cloth. When new and attractive designs in imported cloth are available at very cheap rates, the indigenous silk weaving industry is naturally severely affected. If, therefore, a heavy duty is placed on imported raw silk and silk yarn without a proportionate increase of duty on foreign piecegoods, the effect on the indigenous handloom industry will be disastrous. If, therefore, the Tariff Board finds that some protection, whether temporary or otherwise, is required for Indian sericulture, then the Hyderabad State would strongly urge that it is essential for a proportionate increase of duty to be levied on foreign piecegoods. This is a matter of primary importance to the Hyderabad silk weaving industry.

4. A great deal of stress has been laid in the Press on the large increase on imports of raw silk and silk yarn. An examination of the import figures, however, up till the end of March 1932 will show that during the last six years imports of raw silk from outside India have actually fallen off and not increased. Imports in the year 1931-32 were only 1,562,985 lbs. as against 1,783,260 lbs. in 1926-27. In the intervening years there was a slight increase, but a falling off took place during 1930-31 and 1931-32. In the case of silk yarn, noils and warps there was an increase in imports during the years 1926-27 up till 1928-29, when the total imports amounted to 2,046,760 lbs. After that there was a falling off and during the year 1931-32, the imports were only 1,710,366 lbs. There has been a great increase during six years in the imports of goods made of silk mixed with other materials which have increased from 2,136,217 lbs. to 5,089,648, but the imports of pure silk goods have remained practically steady during these years. In the year 1926-27 the imports were 18,912,091 lbs. During the next three years there was an increase culminating in the year 1929-30 when imports stood at 22,924,625 lbs., but during the last 2 years, there has been a set back and in 1931-32 the imports were only 10,924,223 lbs. It is only during the last six months that there has been such a marked increase in the import of pure silk whether raw or in the form of silk yarn or piecegoods. This is obviously due to the depreciation of foreign currencies and it should be noted that the increase in the imports of piecegoods is just as marked as in the case of raw silk and silk yarn. If, therefore, any assistance is to be given to Indian sericulture in the form of additional tariffs, it is clear that this should be only temporary and designed to meet the depreciation of foreign currencies. When these have regained their normal state or exchange has become fixed at a lower level, there would probably be no special case for further assistance to the sericultural industry.

5. Much emphasis has been laid on the fall in the price of Indian silk, but up to the time that the depreciation in exchange became acute, the falling off was not out of proportion to the decrease in the world price of almost every commodity. It is stated that the average price per lb. of unreeled Mysore silk declined from Rs. 10-7 per lb. in 1927 to Rs. 6 in 1931 and Rs. 5-10 per lb. in 1932. There has thus not yet been a fall of more than 50 per cent. and a fall more or less proportionate to this has occurred in the price of every food grain and raw material since 1927. Prices have now reached a level which are practically the same as that prevailing before the war, and it would appear to be as necessary for the sericultural industry to adapt itself generally to world wide conditions as it is for those industries which are engaged in the production of other raw materials.

6. To sum up, the Hyderabad Government is not opposed to any measures taken for the protection of the sericultural industry provided that (a) proportionate duties are levied on imported piecegoods and (b) the protection given is only temporary and designed to meet the depreciation in exchange.

Statement showing imports of silk into Hyderabad State.

	1340 F. British Govt.	1341 F. British Govt.
	Rs.	Rs.
Silk, raw, Foreign . . .	3,55,393	5,66,554
Silk, raw, Indian . . .	2,65,825	1,63,842
Silk yarn, Foreign . . .	1,82,004	1,99,333
Silk yarn, Indian . . .	20,066	17,144
Silk piecegoods and other manu- factures thereof . . .	10,35,428	15,65,342

Government of Bihar and Orissa.*Letter No. 339-Com./IIC-3, dated the 27th January, 1933.**Subject:—ENQUIRY INTO THE SERICULTURE INDUSTRY.*

I am directed to refer to your letter No. 9, dated the 3rd January, 1933, forwarding a copy of the questionnaire issued by the Tariff Board in connection with its enquiry into the sericultural industry and to forward replies to such questions as are of interest to the local Government.

Enclosure.

Replies to questionnaire forwarded with Tariff Board's letter No. 9, dated the 3rd January, 1933.

1. The only silk produced in Bihar and Orissa which is of commercial importance is tasar.

Tasar is produced chiefly in the districts of Singhbhum, Manbhum, Palamau, Giridih, Sonthal Parganas, Bhagalpur, Monghyr, Sambalpur, Ranchi, Mayurbhanj State, Sonapur State and Dhenkanel State.

The task of rearing and collection of cocoons is carried on only as a part-time occupation by the people engaged in this industry. No accurate estimate of the number of people so engaged can be given.

The 1931 census reports the number of people engaged in reeling and spinning to be about 3,900 as against 5,500 reported in the previous census.

2. Tasar cocoons are sold to middlemen who take them to mahajans. The mahajans sell the cocoons in the market places to weavers. Women generally reel and spin the cocoons and men weave the thread into cloth. They generally take advance from the merchants or masterweavers who practically dictate the price of the finished cloth.

3 & 4. No remarks.

5. The food plants of tasar are Arjun, Asan and Sal (*Shorea Robusta*) plum and some other trees. These grow wild in the forest. The rearers who are generally aboriginals pollard the branches about 2 months prior to rearing. In June or July after the "break" of monsoon tasar moths come out of the seed-cocoons kept in the house of the rearers. Males are allowed to fly away as they do not pair in captivity. The females are tied by means of thread on a tree or on bamboo ends while males from the jungle visit them at night and pair. The fertilised moths oviposit about 150 eggs next day. These are collected and kept in an earthen vessel. On the 5th or 6th day after oviposition the eggs are kept on a cup of leaves and taken to the food plant. On the 7th day when the worms hatch they crawl to the leaves and feed on them. When the leaves of one tree are exhausted, they are transferred to a new one. This is continued for about 55 days when the worms mature and spin cocoons after casting off their skins 4 times. The rearers generally watch the worms and protect them from birds,

flies and other enemies. The cocoons are collected on the 5th or 6th day after maturity.

6. (a) & (b) No remarks.

7. No remarks.

8. Tasar worms are reared from local seeds. Rearers generally keep a stock of seed-cocoons from previous rearers.

9. No remarks.

10. The food plant of tasar are Arjun, Asan and Sal (*Shorea Robusta*) plum and some other trees which grow wild in the forest.

11 & 12. No remarks.

13. About 25 per cent. of the tasar worms die before they form cocoons due to gresserie and flacherie.

14. No remarks about tasar.

15. Experience seems to justify the belief that different areas of this province are suitable for the development of sericulture.

16. For tasar 1 oz. of seed will yield 4 thousand green cocoons.

17. No remarks.

18. Each tasar rearer on an average rears about 4 thousand cocoons. About 150 cocoons are kept for seed purpose.

19. Tasar rearers do not do any reeling. They sell their cocoons at once for whatever price they can get. No remarks to the rest of the query.

20. No remarks.

21. About 640 tasar cocoons yield 1 lb. of silk thread and 6 oz. of waste. This relates to silk reeled by hand on bamboo drum called "natwa".

22. The initial cost for reeling equipment is 4 to 8 annas. One woman reels 4 oz. per day. Earthen vessel lasts for 2 months, and "natwas" from 8 to 10 years.

23-29. No remarks.

30. (i) & (ii) No remarks.

(iii) Excellent practical and theoretical training has been provided for (a), (b) and (c) in all kinds of silk at the Government Silk Institute, Bhagalpur.

31-34. No remarks.

35. Some spinning of tasar waste silk is done on taklis.

36-44. No remarks.

45. None of the raw silk classified in the Indian Customs Tariff compete with tasar. At present the handloom weavers of this province require imported spun waste chiefly.

46. No remarks.

47. No remarks as tasar silk is totally different to imported raw silk which is of reeled mulberry variety.

48-57. No remarks.

58. It cannot be of any advantage to the handloom weavers in this province to have the price of their raw material raised by the imposition of a protective duty on imported silk.

59 & 60. No remarks.

Government of Madras.

(1) Letter No. 78-II/33-2, dated the 28th January, 1933.

SERICULTURE INDUSTRY—QUESTIONNAIRE.

With reference to your letter No. 9, dated the 3rd January, 1933, I am directed to forward herewith a statement submitted by the Director of Industries (with six spare copies) embodying answers to those sections of the

questionnaire of the Tariff Board with which the Department of Industries, Madras, is directly acquainted. The Government agree with the views expressed in replies to questions 55, 56, 57 & 60. The forms of questionnaire have not been communicated to any firm or persons. The few firms concerned will no doubt send their views to the Tariff Board through their respective Chambers.

Enclosure.

1. The origin of the Sericultural industry in this Presidency dates back to the times of Tippu Sultan who appears to have started the industry in the Mysore area from where it spread to Kollegal which borders on the Mysore State.

It is carried on in about 41 villages in the Kollegal Taluk and in the following places where it has been introduced by the efforts of the Madras Department of Industries—Hosur (Salem district), Palmaner (Chittoor district), Vadakangulam (Tinnevely district), Ellore (East Godavari district), Nuzvid (Kistna district), Melrosapuram (Chingleput district), and in Madras. The area under cultivation of mulberry in the Presidency is 6,105 acres (6,000 acres in Kollegal and about 105 acres in the other parts of the Province). The number of people entirely dependent upon silk-worm rearing and reeling is negligible. The number of people partly dependent upon silk-worm rearing is about 30,000, while the number partly dependent upon silk reeling including turners, water carriers, etc., is about 2,000.

2. The mulberry cultivator who is generally an agriculturist, ploughs a portion of his land with his cattle, fertilises it with a portion of the manure of his cattle and plants it with mulberry cuttings, procured generally free of cost, either from his own lands or those of his neighbours. He utilises the labour of the members of his family, his farm servants, if any, and himself for raising the mulberry crop and rearing the silk-worms. The mulberry crop takes about 5 months before it is ready for the picking of leaves for the first time. Thereafter leaves are picked once in 7 weeks in the case of dry lands. The sericulturist does not borrow money either for the mulberry crop or for rearing silk-worms. Occasionally he sells the leaves, if he has a surplus, to rearers who need them.

The silk-worm rearer is generally the mulberry cultivator. His capital consists of his appliances, the labour of the members of his family, his servants, if any, and himself. He generally purchases seed cocoons on credit and pays back after he sells his cocoons. He sells the cocoons either to the village reelers or their brokers. Some village reeling establishments engage brokers, who get generally two per cent. of the sale price as commission paid partly by the rearers and partly by the reelers.

The stock-in-trade of the silk reeler, who is not generally a capitalist, consists of silk reeling machines consisting of basins made of mud pots and reels made of wood. He purchases cocoons on credit and gets the cocoons reeled; sells the raw silk and silk-waste to Kollegal silk merchants and then pays the rearers.

Raw silk is purchased from the reelers by silk merchants at Kollegal on advance orders received from traders in silk weaving centres. These Kollegal merchants have no direct dealings with the handloom weavers. Large stocks of silk are never held by them, because of the uncertainty of the market owing to the prices for the indigenous silk being determined by the prices ruling for China silks. None of the silk merchants of Kollegal has any overdrafts from banks. The silk reeler brings silk to the Kollegal merchant for sale and is paid generally in cash but there are occasions when the reeler has to wait for the settlement of his accounts for a week. The reeler, before he sells his silk, goes round with sample skeins to all the silk merchants in Kollegal town and ascertains the market value.

3. The production of 'Cocoons' attainable under the existing conditions is 1,232,050 lbs. while the quantity of raw silk attainable would be

91,575 lbs. The estimated quantity of cocoons and the quantity and value of raw silk produced during the last 8 years are given below:—

Year.	Cocoons.		Raw silk.	
	Quantity.		Quantity.	Value.
	Lbs.		Lbs.	Rs.
1925 . .	3,231,270		230,805	19,61,843
1926 . .	2,829,960		202,140	17,18,190
1927 . .	2,302,440		164,460	14,39,025
1928 . .	2,144,940		153,210	10,91,621
1929 . .	2,048,130		146,295	10,42,352
1930 . .	2,037,210		145,515	8,73,090
1931 . .	1,528,170		109,155	6,75,397
1932 . .	1,260,000		90,000	5,23,125

It will be observed that there has been a gradual fall in the output of cocoons and raw silk from 1925 onwards and the decline is attributable largely to the increasing competition from the lower priced imported silk. If prices were sufficiently favourable there would be no difficulty in reverting to the 1925 scale of production. As the industry gradually develops in the areas, other than Kollegal, where sericulture has been introduced, the production can be increased substantially.

4. The silk contents of the several varieties of cocoons are as follows:—

Mysore Multivoltine variety	300 yds.
French Univoltine variety	1,000 yds.
Hybrid between Mysore and French	600 yds.

The silk content of the univoltine Chinese and Japanese cocoons are 700 yds. and of the multivoltine Chinese 500 yds. No filature in this province had to be closed for want of an adequate supply of Indian cocoons, the only filature of the kind having been started two or three years ago.

5. The silk-worm reared in the Madras Presidency is *Bombyx Meridionalis* the multivoltine breed of the Mysore variety, which feeds on bush mulberry leaves.

When the mulberry leaves are ready for picking, the rearer buys what are called "seed cocoons" and places them in a bamboo tray kept on a bamboo rack or machan inside a well ventilated room. Moths, generally half male and half female come out of the cocoons ten days after they start spinning. As soon as they emerge, each male moth pairs off with a female and after eight hours' copulation, the female moth is separated from the male and kept in a separate bamboo tray where it lays 250 to 300 eggs or seed. The eggs are safely kept in a tray inside the rack where they begin to hatch in about ten days after laying. The larvae are gently brushed with a feather on to another tray where they are fed with tender mulberry leaves chopped into fine pieces. Fresh leaves brought from the garden are generally used for each feeding. The actual hatching period is about two days and the worms of each day are kept separately.

6. (a) The Kollegal silk-worm rearer does not construct any special rearing house for rearing worms. He generally keeps the worms in the courtyard verandah of his dwelling house and has therefore little expenditure to incur in the way of constructing a special rearing house. The equipment of a rearing house consists of the following and costs about Rs. 22:—

	Rs. A.
(1) Stand (wooden with bamboo cross bars)	5 0
(2) Trays, 20	5 0
(3) Knife, 1	0 12
(4) Antwells	1 4
(5) Chandrakies	10 0
	<hr/>
	22 0

The trays and the chandrakies require renewal every four years while the stand is renewed every 10 years. There is not much scope for the improvement of their houses with a view to setting apart a separate block for carrying on rearing operations on up to date lines. As regards equipment, the number of stands could be increased and a larger number of trays provided in order to allow more space for the worms to be reared. Similarly the number of chandrakies could be increased in order to prevent overcrowding of worms during spinning.

(b) The results given by each variety of worms reared are given below :—

Race of variety.	No. of days.	No. of cocoons to a lb.	Length of filament.	Denier.
			Yds.	
Mysore	28 to 30	500	300	1½—2
French	42	250	1,000	2 —2½
Hybrid	(Hotter) 28 to 33 (colder season)	350	600	1½—2½

7. The method of rearing worms in Japan and France differs from that practiced in this Presidency in certain respects. Paddy husk is used in Japan for cleaning the litter in the early stages and nets in subsequent stages while in France nets are used throughout. In both these countries worms are never touched by hand. But in Kollegal the cleaning of the litter is carried out by lifting the worms with the hand and placing them on a separate tray. Dry hay is used in Japan and brushwood in France for making the cocoonery for the worms in place of the special trays employed in Kollegal.

8. The Kollegal rearers obtain their requirements of seed cocoons from vendors of the Mysore variety of seed cocoons imported by them and also seeds from the Government Farms at Hosur and Palmaner of the Mysore multivoltine as well as Hybrid variety.

The production of seed is organised separately from the production of cocoons. While seed cocoons are obtained from private vendors, seeds are obtained only from Government farms, including those in Mysore. There are only two Government farms in this Presidency, one at Hosur and the other at Palmaner for production and distribution of seed. The staff at the Palmaner farm consists of one Farm Foreman and one Rearer, with an acre of mulberry for seed production.

The staff at the Hosur Farm consists of a Moth Tester, one rearer, and one mulberry cultivator. There are 2½ acres of leased land under mulberry and the Farm produces seed cocoons and conducts hybridisation work.

The actual cost of production of seed at the Government Farm at Hosur comes to about Rs. 1-10 per 100 layings including supervision charges but this quantity of layings is actually sold at As. 5-4 in order to induce the Kollegal rearer to take to disease-free seeds.

No control is exercised over the selection of cocoons for the production of seed by private rearers. But free testing is done by the Peripatetic Rearing party stationed at Kollegal for such of the rearers as wish to have their seed tested. In order to increase the supply of disease-free seed, Government aided the establishment of two private grainages in Kollegal, but owing to the difficulty of securing good seed cocoons and failure on the part of the rearers to pay their dues to the graineurs, these establishments had to be recently closed down.

9. The Kollegal worms are multivoltine. With good seasonable conditions 7 broods are raised in a year.

The average number of cocoons produced per ounce of seed is somewhat difficult to calculate. The seed is reckoned for this variety not in ozs. but in layings. On an average there are 500 seed cocoons per lb. From 500 seed cocoons will emerge about 250 female moths and making allowance for failure to yield layings there will be at least 150 disease-free layings yielding about 63 lbs. of cocoons.

30 lakhs of layings are hatched at present whereas in 1925, 75 lakhs of layings were hatched.

10. The worms are fed on fresh mulberry leaves.

The mulberry is cultivated generally in his own land by the silk-worm rearer and rarely in a leased land. There are times, but these are rare, when the silk-worm breeder has to buy leaves from other mulberry cultivators when the supply from his own land falls short of his requirements. *Per contra* if there is mortality among the worms, the cultivator-rearer is forced to sell a portion of his leaves.

The method of cultivation is as follows:—

Mulberry is generally raised by planting cuttings. The preliminary operations are, ploughing, hoeing, weeding and manuring. The cuttings which are 8 to 9 inches in length are planted $2\frac{1}{2}$ feet apart.

Cost of cultivation of mulberry (1 acre).

	Rs. A.
<i>Initial—</i>	
(1) Preparation of land, 4 ploughings with 3 pairs of bullocks at As. 12 per plough	9 0
(2) 20 cart loads of manure at As. 8 per cart load	10 0
(3) Spreading manure	0 8
(4) Cost of seed cuttings including labour for cutting and carrying	1 8
(5) Planting, 5 coolies at As. 4	1 4
(6) 2 weedings with 10 women coolies at As. 2 a cooly	2 4
	<hr/> 25 0

Cost of food for worms—

Taxes	1 0
Ploughing 4 times	6 0
10 cart loads of manure at As. 8	5 0
Spreading manure	0 8
Planting	1 8

This does not include the interest on land revenue, or the cost of picking the leaves. Only farm yard manure is used,—20 cart loads for initial planting and 10 cart loads for each succeeding year. The mulberry is planted $2\frac{1}{2}$ ft. apart, so the number of bushes per acre is 6,724. In the case of dry land, the yield of leaf per acre per annum is about 2,100 lbs. and the average life of the bush is 10 years.

The quantity of leaves necessary for 500 layings of seed is 2,100 lbs. and if the rearer buys these leaves it costs him Rs. 35 (*i.e.*, 35 head loads of mulberry leaves of 60 lbs. each at Re. 1 per load).

11. (i) As stated already, there are very few cases of the breeder of worms buying mulberry leaves from a cultivator. It is reported that surplus

leaves are sold at prices varying from As. 12 to Re. 1 per head load of 60 lbs.

(ii) In Kollegal mulberry is grown on unirrigated land and the cost of cultivating mulberry per acre is Rs. 25.

(iii) The cost of cultivation of ragi and cholam which are the principal dry crops raised in Kollegal are as follows:—

	Rs. A.
<i>Dry Ragi—</i>	
(1) 5 preparatory ploughings at Re. 1-8 a ploughing .	7 8
(2) 16 cart loads of manure at As. 8 a cart load .	8 0
(3) Spreading, 2 women at As. 2	0 4
(4) Seeds (6 Madras measure)	0 6
(5) Sowing (1 woman)	0 2
(6) Pass Rake to cover the seeds	0 12
(7) 2 Thinnings, 1½ pairs	1 8
(8) 2 weedings (12 women)	1 2
(9) Harvesting (6 men to cut)	1 8
(10) Harvesting (8 women to bundle)	1 0
(11) Thrashing, 1½ pairs and 3 men	2 4
(12) Land assessment	0 12
	<hr/>
	25 2
<i>Cholam—</i>	
(1) 2 ploughings at Re. 1-8 a ploughing	3 0
(2) 16 cart loads of manure at As. 8 per cart load .	8 0
(3) Seeds and sowing	0 8
(4) Weeding (¾ pair)	1 0
(5) Thinnings of lines, 2 women	0 4
(6) Harvesting, 2 men and 6 women	1 4
(7) Thrashing, 5 men and 6 women	2 0
(8) Assessment	1 0
	<hr/>
	17 0

12. The question of improving the supply and quality of food for the silk-worms is beset with difficulties since the cultivator-rearer has first of all no money to spend on improvements and what is more even if he is prepared to borrow money for the purpose, he cannot hope to realise any additional income from the sale of cocoons to compensate him for the extra expense involved.

13. On an average two out of every 7 crops are annually lost by the breeders in Kollegal and the general causes are (1) use of non-tested seeds, (2) bad ventilation, (3) irrational methods in the rearing of worms.

14. There are four kinds of diseases from which silk-worms suffer:—

(1) Pebrine, (2) Flacherie, (3) Grasserie, (4) Muscardine.

Pebrine.—Pebrine is caused by a parasite known as “*Nosema Bombycis*”. There is no direct cure for the disease. Since the disease is hereditary, it can be prevented by rearing worms from tested seed free from disease. The precautions are to rear worms in rooms free from contaminative infection and rational methods to be adopted in feeding of worms.

Flacherie.—This is a bacterial disease caused by rearing worms in a humid atmosphere with high temperature. The preventive measures are to have well ventilated rearing rooms, to feed the worms with fresh leaves as far as possible and to clean the litter once a day.

Grasserie.—This disease is due to some metabolic disturbance though some consider it to be a parasitic disease. Careless feeding of worms is the chief cause of this disease. Exposure of the worms to sudden currents of damp and cold air or a sudden change from hot and dry temperature to cold and damp brings about this disease. The disease is not infectious. The only precaution is to avoid feeding of worms with wet leaves and the exposure of the worms to damp air.

Muscardine.—This is a parasitic disease caused by fungus or mould—the vegetative portion of which forms a net work of filaments or mycelium which penetrates into the body of the infected caterpillar in all directions. There are said to be two species or organisms causing the disease—*Botryis Bassiana* and *Botryis Senella*. This is a very highly infectious disease and the best preventive is to burn the dead worms immediately and maintain good ventilation and an adequate amount of light in the rearing room.

15. Yes; the industry came into existence in Kollegal because of the suitability of the climatic conditions there and the department has introduced sericulture in other places mentioned in paragraph I, only because those places had suitable climatic conditions.

16. The average number of cocoons is somewhat difficult to calculate. The seed is reckoned for this variety not in ounces but in layings. On an average there are 500 seed cocoons in a lb. From 500 seed cocoons will emerge 250 female moths and making allowance for failure to yield layings there will be at least 150 layings of seed yielding about 63 lbs. of cocoons.

17. Reliable data regarding cost of production of cocoons during the last five years are not available. But the cost of producing cocoons from 500 layings of seed at present is given below:—

(b) 500 layings of seed which produces 210 lbs. of cocoons is taken as the basis for the works cost:

	Rs. A. P.
(1) Cost of seed, 500 layings at As. 5-4 for 100 layings	1 10 0
(2) Cost of labour for picking leaves	10 0 0
Cost of labour for rearing 125 units at As. 4 per day of 8 hours per acre per annum	31 4 0
(3) Cost of food for worms	35 0 0
(4) Cost of appliances—	
Non-recurring	1 0 0
Recurring (once in four years)	3 12 0
(5) Other expenses (kerosine oil, etc.) for burning of a small lamp	1 13 0
	<hr/>
	87 7 8

18. Kollegal rearers do not reserve any cocoons for seed purposes. As the function of the Government Farms is to raise seed, all the cocoons raised there are converted into seed. In case a rearer produces his own seed he should retain 1/63 part of his crop.

One pound of 500 seed cocoons yields 150 layings which is sold by this department for 8 annas and the price of 1 lb. of reeling cocoons is As. 5-9.

19. Generally the breeder of worms sells his cocoons in a green state immediately they are spun, irrespective of the state of the market. It is not usual for him to keep the cocoons till the prices suit him.

The average prices obtained during the last 8 years are reported to be as follows:—

(In rupees per maund of 25 lbs.)

—	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January .	..	20	18-12	..	..	12 4 0	8 10 0	10 12 1
February .	..	16-8	..	..	15-16	12 14 0	8 8 0	10 12 1
March .	16-17	15-12-16	..	..	13	12 12 6	8 9 11	10 12 1
April .	..	18-19	..	..	12-13	12 12 6	9 0 0	10 12 1
May .	22-24	20-30-8	..	..	12-13	12 1 6	8 9 3	10 12 1
June .	24	20	17	..	7-8-8	12 4 0	7 0 0	10 12 1
July .	19	19-8-21	..	19-8-20	11-12	9 12 0	7 11 10	8 0 0
August .	19-19-8	16-17	19-8	..	12-14	8 10 0	7 11 10	8 0 0
September .	..	15-16	..	..	10-10-8	..	7 11 10	8 0 0
October .	15-16	16	..	16-8-17	10-13-7	..	7 11 10	8 0 0
November .	..	13-14	..	16	10-13-7	..	7 11 10	8 0 0
December .	..	20-22	15-8	11 Rainy Cocoons.	12-5-2	..	7 11 10	8 0 0

As already stated the rearer does not reel the silk himself. Reeling is carried out by a separate class of reelers.

14 lbs. of cocoons will yield 1 lb. of silk and $\frac{1}{2}$ lb. of waste and 100 lbs. will yield $100/14=7\frac{1}{2}$ lbs. of silk $3\frac{1}{2}$ lbs. of waste and the average wholesale price of Kollegal country silk per maund of 1,000 tolas or 25 lbs. during the last 7 years is reported to be as follows:—

(In rupees.)

—	1926.	1927.	1928.	1929.	1930.	1931.	1932.
January . .	200	210	210	205	180	145	210
February . .	210	250	180	215	176	125	180
March . . .	205	235	170	190	180	125	160
April . . .	240	230	170	175	185	125	160
May	255	240	175	170	190	120	150
June	270	245	180	160	170	120	120
July	210	200	185	170	140	110	120
August . . .	200	180	175	175	140	105	120
September . .	205	215	165	175	120	105	120
October . . .	190	195	170	170	105	120	120
November . .	175	200	170	165	105	220	120
December . .	195	220	175	180	150	285	130
Average for the year	213	219	178	179	150	155	145
Average price per lb.	8-8	8-12	7-12	7-2	6	6-3	5-13

20. It was only two years ago that a filature of 40 basins was erected in Kollegal and the quantity of silk produced out of the Kollegal Cocoons

per annum by this filature is not known as this filature buys cocoons both from Kollegal and Mysore. The total production of raw silk reeled by hand on single charka is 90,000 lbs.

The country reeling machine consists of a basin of mud fixed three feet higher than the ground level with a small place set apart for the reeler to squat on. Water in the basin is heated from underneath by a fire kept burning with firewood throughout the day when reeling is going on. There is a reel in front of the reeler which is turned by means of a handle. The silk fibre, which consists of 10 to 50 filaments of cocoons passes through the hole in a small iron plate and is received in the reel through a guide.

Power reeling differs from cottage reeling in the methods adopted for boiling and subsequent treatment, in unwinding, turning of reels, etc. In brief power reeling may be described as an organised form of silk reeling under modern factory conditions where steam is used for heating water instead of charcoal or wood fuel, and where reels for receiving silk are turned by machine power instead of man power. In power filatures the filaments forming the thread are passed through the jettebeu which gives uniformity to the threads and removes any fluffy waste. Uniformity of temperature in the reeling basis and the constant changing of water gives the necessary lustre, tenacity and elasticity to the silk. The strict supervision bestowed in an organised filature is responsible for the production of a standard quality of silk reeled. The filature is generally equipped with a boiler for steam and an engine for driving the reels.

21. The sub-joined statement shows the quantity of (a) raw silk reeled and (b) waste produced in this presidency during the last eight years and the average price obtained for each:—

Year.	Quantity of silk reeled.	Quantity of silk waste produced.	Average price of silk reeled.	Average price of silk-waste.
	Lbs.	Lbs.	Rs. A. P.	
1925. . .	230,805	115,402½	8 8 0	The price has ranged from Rs. 18 in 1925 to Rs. 4 in 1932 per maund of 25 lbs. More details are not available.
1926. . .	202,140	101,070	8 8 0	
1927. . .	164,460	82,230	8 12 0	
1928. . .	153,210	76,605	7 2 0	
1929. . .	146,295	73,147½	7 2 0	
1930. . .	145,515	72,757½	6 0 0	
1931. . .	109,155	54,577½	6 3 0	
1932. . .	90,000	45,000	5 13 0	

14 lbs. of cocoons in country reels and 18 lbs. in filature are required to produce 1 lb. of silk. Waste is ¼ lb. in country and 60 per cent. in filature silk.

22. The initial cost for a crude type of hand reeling machine is about Rs. 5. It gives generally 1½ lbs. of silk per day, of a denier which varies widely from 18 to 42. The machine lasts for nearly ten years.

23. (a) The information is not available as the department has no works experience to draw upon.

(b) Cost of reeling 1 lb. of silk on country reeling machine would work out as follows:—

Ratio of silk to cocoons	1 : 14 .
	Rs. A. P.
Price of 14 lbs. of cocoons at 5 annas 9 pies	
per lb.	5 0 6
Fuel	0 4 0
Rent for building	0 0 3
Turner	0 1 6
Depreciation on machine	0 0 3
Transport of cocoons	0 1 6
Reeler's wages	0 5 0
	<hr/> 5 14 0
Less sale of $\frac{1}{2}$ lb. silk-waste at As. 4 per lb. . .	0 2 0
	<hr/> 5 12 0

The cost of reeling in a filature is reported to be Rs. 8 per lb. Further details are not available.

24. Yes; prices of cocoons are high owing to the restricted output of leaves per acre per annum.

25. Not directly concerned.

26. It is considered that a 40 basin filature constructed in India represents the most economic unit under the conditions prevalent in Kollegal. The approximate capital that would be required to equip such a filature would be Rs. 12,500 whilst the working capital required would be approximately Rs. 17,500.

27. Not directly concerned.

28. The number engaged at present in this industry are given below:—

Silk-worm rearing 30,000.

Silk-worm reeling 2,000.

Silk-worm merchants, cocoons brokers, etc., 1,000.

The figures would more or less be the same for 1926-27 as very few would have given up the industry altogether between that year and now.

29. Not directly concerned.

30. (i) (a) With charka—

Reeler As. 7-6.

Turner As. 1-6.

(iii) Facilities have been provided for such of the rearers and reelers as require practical training, to receive such training in the Government Farms at Palmaner, Hosur, Coonoor and Madras. A Peripatetic Rearing Party started at Kollegal also provides practical training in microscopic examination of moths.

31-34. Not directly concerned.

35. Spinning of silk-waste—*Nil*.

Re-reeling—*Nil*.

There are only two silk throwing factories in this presidency one at Kollegal and the other at Peddapuram.

The processes consist of the following:—(a) winding, (b) cleaning, (c) twisting and (d) reeling.

36. Not directly concerned.

37. (a) Raw silk is used as raw material for weaving of fabrics, tapes, etc., and as a core in the manufacture of gold thread.

38. (i) The total demand for the Madras Presidency is approximately 17 million lb.

(ii) The total production of raw silk in this presidency: Kollegal—90,000 lbs.

39. Almost the whole of the silk produced in the Madras Presidency is used locally while all the waste produced goes to Europe. As regards marketing of raw silk, raw silk is purchased from the reelers by silk merchants at Kollegal on advance orders received from traders in silk weaving centres. These Kollegal Merchants have no direct dealings with the handloom weavers. Large stocks of silk are never held by them because of the uncertainty of the market owing to the prices for the indigenous silk being determined by the prices ruling for China silks. None of the silk merchants of Kollegal have any overdraft from banks. The silk reeler brings his silk to the Kollegal merchants for sale and is paid, generally in cash, but there are occasions when the reeler has to wait for the settlement of his accounts for a week. The reeler, before he sells his silk, goes round with sample skeins to all the silk merchants in Kollegal town and ascertains the market value. The silk is sold by maund weight which is 40 seers or 1,000 tolas.

40. & 41. Not directly concerned.

42. No system of sorting and grading of country raw silk is at present in vogue although the steam filatures have their own methods. It seems very necessary that a silk sorting house should be established so that all silk may pass through it before it is placed in the market.

43. No Chamber of Commerce in this Province publishes the sale price of silks.

44. The approximate quantity and value of each kind of silk imported during the last five years are as follows. The imports are mostly from China and Japan.



Approximate quantity and value of imports of raw silk into the Madras Presidency.

Particulars.	1927-28.		1928-29.		1929-30.		1930-31.		1931-32.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.
(1) White, Shanghai, Thantoon.	83,547	5,56,980	85,769	5,71,793	104,438	4,17,752	42,428 3,741	1,83,741	10,669	35,159
(2) White, Shanghai, other kinds.	296,189	19,74,593	157,758	10,51,720	..	..	102,586	6,15,516	41,637	2,09,016
(3) White, other kinds	1,961	13,073	..	..	192,487	11,54,922	6,508	42,302	1,067	6,935
(4) Yellow, Shanghai	353,052	23,53,680	436,901	29,12,673	392,114 155,106	29,51,545	493,560	25,29,495	465,909	21,51,224
(5) Yellow, other kinds	..	..	..	..	..	..	..	..	1,453	7,810
TOTAL	734,749	48,98,326	680,428	45,36,186	844,145	45,24,219	648,823	33,71,054	520,535	22,10,144
Actual quantity imported	747,217	50,85,121	682,126	43,12,475	825,936	47,29,279	646,462	27,12,839	538,255	20,30,384

45. As regards the kinds of imported silks that compete with 'different kinds' of Kollegal silk, the bulk of the silk produced so far as this Presidency is concerned, is of only one class,—country reeled Kollegal silk. There is however, one factory recently started in Mudigundam of the Kollegal taluk which produces filature silk. The output of this factory is reported to be about 12,000 lbs. of filature silk per annum as against 78,000 lbs. produced by about 500 reelers in Kollegal in a year. Hence all the imported varieties of raw silk compete mainly, so far as this Presidency is concerned, with the single class of country reeled Kollegal silk. It should be added, however, that the classes of imported silk, which come into competition with the local silk have largely changed within recent years, with the fall in prices of the imported silks, including the filature reeled silks.

As regards the kinds of imported silk that are required by the handloom weavers, Chinese silk is not an absolute necessity for the handloom weaving industry of this presidency, and it had recourse to it only because the price of imported silk, particularly in recent years, and its advantages in reeling qualities helped the weaver to make a larger profit. If reasonable tariff protection is given to the local silk industry and assistance rendered to the rearers by adequate supply of disease-free seed and by the organisation of marketing facilities there is no reason why the silk industry in Kollegal as also in the new areas brought under mulberry cultivation, should not expand so as to meet the entire requirements of the province.

46. No definite information is available as to the cost of production of silk in China. The Canton Government has, it is understood, encouraged the export of raw silks to India by the removal of an export duty which it is understood was 20 dollars per bale or about 3 annas per pound.

47. China silk generally possesses better winding qualities and contains less of waste and other defects as compared with the Kollegal country reeled silk. But in point of lustre, tensile strength and wearing qualities the local charka silk scores and on this account is preferred by certain classes of the people. In the process of degumming, the China silk loses only about 21 per cent. whereas the South Indian country reeled silk loses about 25 per cent.

48. A graph is being prepared showing the fall in the price of Kollegal silk and the decline in the currency of the exporting countries. No definite opinion can be expressed as to whether competition is likely to increase in the future owing to the exchange factor.

49. Silk-waste is not imported into the Madras Presidency.

50. No attempt has been made in this Presidency to instal a silk waste spinning plant. Capital is shy and the cost of setting up a waste spinning plant would be high. If protective duties can be levied on spun silk noils, etc., it might be possible to induce Kollegal silk merchants to set up a waste plant.

The capital outlay required for a plant to produce 100 lbs. of yarn per day of 8 hours is £10,481 exclusive of duty.

Cost of accessories—£275, cost of spare parts—£380, and erection charges extra.

51. The main cause of the decline of the sericulture industry is the intensive competition of China silks and Japan Dupion silks in the Indian markets.

52. Not directly concerned.

53. It is considered that unless the basic cost price of cocoons can be stabilised at an economic level it would not be possible to arrest the present decline in the industry.

54. There has never been any substantial export of raw silk or cocoons.

All the waste silk produced in this Presidency is exported.

55. Yes, for the reason that a revenue duty does not take into account the cost of production of the local silk compared to that of the imported

product. In view of the violent fluctuations both in the price of the silk and the Chinese exchange, it is desirable to levy a specific protective duty instead of an *ad valorem* duty and also empower the Governor General in Council to vary the duty if necessary as was done in the case of sugar. As the cost of production of country reeled silk in Kollegal is Rs. 5-12 and the price of certain varieties of Chinese silk is Rs. 2-0-6, the levy of a specific productive duty of Rs. 3-12-0 a lb. on all imported raw silk and thrown silk is suggested. It is also suggested that 16½ per cent. of the proceeds from the revenue derived from the imposition of the enhanced duty may be granted as a subsidy to the sericultural provinces in proportion to their population for the development of the sericulture industry.

56. Yes. There are several areas in this Presidency with suitable climatic conditions for growing mulberry and rearing of worms. Sericulture is an ideal cottage industry suited to the agricultural population and a sufficient supply of cheap labour is always available. If local silks can successfully compete in price with imported Chinese silk, there is an assured home market as is evidenced from the imports of Chinese silks into this Presidency.

Protection is very necessary if the decline of the industry is to be arrested and the industry developed to meet the requirements of the Home market.

(b) The acreage under mulberry in Kollegal which was 15,387 in 1925 has come down to 6,105 in 1932. In consequence the production of raw silk has declined.

(c) If the industry is sufficiently organised and fostered with care for some years there is no reason why it should not be able to stand on its own legs eventually.

57. (a) A specific duty of Rs. 3-12 on all imported silks is recommended—*vide* answer to question 55.

(b) A specific protective duty instead of an *ad valorem* duty has been suggested in view of the difficulty of classification of different varieties of silk by the customs authorities.

(c) Protection may be granted for a period of 10 years as this will be the minimum time which must elapse before the industry can be sufficiently organised.

58. The increased duty on raw silk will not affect adversely the power silk weaving industry which may still go in for imported silk for the manufacture of such varieties of cloth as are imported, provided an increase in the duty on imported silk cloth from 50 per cent. to say 100 per cent. is effected. The existing competition between the handloom weaving industry using indigenous raw silk and power-weaving factories using China silk will also, as a result of the proposed specific duty on imported raw silk, be removed to some extent.

So far as the requirements of the handloom weaving industry for a superior class of silk are concerned, they could be met by the introduction of improved cottage filature reeling machines which will replace the crude country type of reeling machines. With the grant of protection, the quality of local silk will improve in respect of cleanliness, and uniformity of size, and the handloom weavers will replace imported filature silk by local silk in the production of fine garments such as angavastrans, turban cloths, shirting and suiting cloths. Although the consumers will have to pay a slightly higher price at the beginning, they will have the advantage of buying cloth made of Indian filature reeled silk that will wear well. Even at present the local silk cloth is sold at a higher price than imported silk and the fact that the people are willing to pay a higher price for cloths produced from local silk speaks for itself.

59. The proportion of the cost of raw silk to that of twisted silk varies with individual factories and also the quality of reeled silk used and whether the silk is twisted on the Charka or by power driven machinery and the value of the silk. It may however be taken that the cost varies from 74 per cent. to 81 per cent.

The proportion of the cost of raw silk to silk piecegoods varies with the kind of the silk used and quality particulars of different fabrics and whether the cloth is plain, dyed after weaving or woven with checked patterns. It may however be taken that the cost varies from 42 per cent. to 58 per cent.

60. Yes. It should be possible within the period of protection and provided that a subsidy is granted to reduce the cost of producing raw silk under the following heads:—

Supply of disease-free seed.—At present out of seven crops two are lost on account of disease.

Research.—Increase in the production of mulberry leaves and in the silk contents of the cocoons.

Reeling.—By the introduction of improved reeling basins the quality of the silk cocoons can be improved.

Marketing organisation.—By standardisation and improved marketing methods a higher price should be secured for the raw silk.

(2) *Letter dated the 20th April, 1933, from the Director of Industries, Madras.*

As requested during the course of the discussion which I had with the President of the Tariff Board a few days ago I append a revised statement showing the recurring cost of production of rainfed mulberry leaf per acre per annum.

It will be seen from the appended statement that the net cost of production of mulberry leaf per acre per annum is Rs. 16. In fixing a fair selling price for mulberry leaf it is necessary to allow for a reasonable return on the capital value of land. The average sale value of land in 13 Sericultural villages of Kollegal Taluk for the period 1929-1933 was Rs. 145·2 per acre. The principal alternative crop in Kollegal which covers about 45 per cent. of the cultivable land is ragi. The return derived by the agriculturist from ragi is Rs. 10 per acre. Hence the mulberry cultivator expects a return of at least Rs. 10 per acre over and above his costs of production. The fair selling price of mulberry leaf is therefore Rs. 26 per acre per annum.

Enclosure.

<i>Recurring cost—</i>		Rs. A.
1. Land Revenue		1 0
2. Ploughing and hoeing at As. 12 per plough		6 0
3. Cost of manure, 10 cart loads at As. 8 per cart load		5 0
4. Cost of transport, 1½ carts at Re. 1 per cart per day		1 8
5. Cost of application of manure, 4 women at As. 2 each		0 8
6. Cost of pruning, 6 men at As. 4 each		1 8
7. Cost of weeding, 8 women at As. 2 each		1 0
8. Miscellaneous expenditure		0 8
9. Annuity to cover the initial cost of planting at 6 per cent. interest		2 0
		<hr/> 19 0
<i>Deduct</i> cost of mulberry twigs		1 8
<i>Deduct</i> cost of litter		1 8
		<hr/> 3 0
Net cost of production of mulberry leaf per acre per annum		16 0

NOTE.—The twigs are used either as fuel or setts for planting. Their value as fuel is taken in this case. The litter is used either as manure or fodder for cattle.

(3) Letter dated the 2nd May, 1933, from the Director of Industries, Madras.

As desired by the Chairman of the Tariff Board, I enclose a note furnishing certain additional information relating to the silk industry of this Presidency.

Enclosure.

1. *Varieties of Kollegal silk.*—The bulk of the silk produce in Kollegal is reeled on the country charkas in reeling establishments owned by Master reelers and the quality of the reeled silk depends upon the degree of supervision exercised by the Master reelers. For purpose of marketing Kollegal silk, the merchants class the silk into four grades according to quality.

2. *Consumption of indigenous silk.*—It is reported that owing to the competition of imported Chinese silk, the demand for local silk has decreased generally in the various weaving centres of the presidency and in some places China silk has completely replaced Kollegal silk. The chief centres of consumption of indigenous silk in this Presidency are Conjeevaram, Arni, Dharmavaram, Kollegal, Salem, Coimbatore, Rayadrug, Hospet, Adoni, Panruti and Madura. The approximate quantity of silk consumed in these places is about 250,000 lbs. per annum.

Malda silk is consumed in Berhampore, Conjeevaram and Arni the approximate total quantity imported annually into these centres being about 25,000 lbs.

3. *Prices of indigenous silk.*—As Conjeevaram is the chief centre of consumption of local silk in Southern India a statement of prices of the superior quality of Kollegal silk, taken from the records of a prominent silk merchant of this place, is furnished below. The prices of the lower qualities vary up to Rs. 1 per lb.

	Rs. A. P.
27th April, 1932	6 11 0
21st June, 1932	5 9 0
11th July, 1932	5 11 0
18th August, 1932	5 11 0
19th September, 1932	5 15 6
15th October 1932	5 15 0
29th October, 1932	5 15 0
18th November, 1932	5 13 0
3rd January, 1933	5 9 0
2nd March, 1933	5 6 6

4. *Varieties of Chinese silk coming into competition with Kollegal silk.*—A large number of trade marks, brands or chops of raw silk is imported from China into this Presidency and there is further a large number of sub-qualities in each chop, represented either by numbers or by names such as Extra Fine, Fine, Middling, Good Middling, Coarse, So So, etc. As very few merchants deal both in Kollegal silk and China silk and as a large number of chops and sub-qualities of silk is imported from China, and as fluctuations in the prices of imported silk tend to vary the competition, merchants state that it is difficult to specify the exact qualities of imported silks competing with Kollegal silk. The qualities imported into Conjeevaram and which are noted below may be taken to fall within the range of possible comparison:—

Canton Filature	Kollegal Filature and superior quality of Kollegal country silk.
Tsatles re-reeled	Meidum grade of Kollegal country silk.
Buddha, Gold Moon, Kubin, Poemin, Shentung, Manji (inferior)	Lower variety of Kollegal silk.
Dupion and So So qualities	Coarse variety of Kollegal silk,

5. *Duty on raw silk.*—In considering the question of the duty to be levied on imported silks which enter into competition with Kollegal silks, it is very necessary to take into account the price of the So So quality as otherwise there might be a tendency for the competition to be shifted from the higher to the lower qualities in which case the imports of the So So variety, though at present comparatively small, is likely to increase. I have therefore suggested a specific duty of Rs. 3-12 per lb.

6. *Price of filature reeled silk.*—As regards the price of Rs. 14 per lb., quoted in para. 4 of letter No. 1580-II/30-1, dated the 18th June, 1930, of the local Government addressed to the Government of India, it may be explained that the figures given relate to filature silk. As there are no power filatures run by the Department and the private filature in Kollegal had not been working sufficiently long to be in a position to supply accurate data, the figure of Rs. 14 was taken from a representation of the Mysore Durbar at the time.

7. *Duty on silk cloth.*—At present the duty levied on silk cloths is 50 per cent. of the tariff value, and this affords a certain measure of protection to the hand loom weavers. If my proposal to levy a specific duty of Rs. 3-12 per lb. on raw silk imported is accepted it is very necessary that a corresponding additional duty on silk cloths should be imposed as otherwise the weaver of silk cloth in this country will be subjected to severe competition from imported silk cloth and his competitive power will be impaired. Since white Shanghai raw silk, other kinds, is paying at present a duty of 25 per cent. on a tariff value of Rs. 4-4 per lb. = Re. 1-1, and the extra duty proposed to be levied is (Rs. 3-12 minus Re. 1-1) = Rs. 2-11 per lb., it is proposed that in the case of silk cloths also, there should be a corresponding increase in duty by Rs. 2-11 per lb. over and above the 50 per cent. duty already in force.

Five statements (A, B, C, D, and E) showing the prices of different varieties of imported silk cloths taken from the records of a prominent silk merchant in Madras are enclosed. Now taking Rs. 9-5-6 per lb. which is the cost price (ex-duty) of Shin Paj (heavy quality) cloth imported from Japan (*vide* Statement A), the duty of 50 per cent. paid on a tariff valuation of Rs. 15-4 works out to Rs. 7-10. With the addition of the extra duty of Rs. 2-11 the new price will work out to Rs. 10-5 per lb. (Rs. 7-10 plus Rs. 2-11) which will be more than 100 per cent. of the cost price of Rs. 9-5-6. Similarly in the case of Shin Paj (light quality) (*vide* Statement B) the present duty of Rs. 7-10 per lb. plus the additional duty of Rs. 2-11, *viz.*, Rs. 10-5 per lb., will be more than 100 per cent. of the cost price of Rs. 9-13-6.

In the case of spun crepe also (*vide* Statement C) the present duty works out to Rs. 4-12 and the difference between the proposed specific duty on raw silk, *viz.*, Rs. 3-12 and the present duty of 25 per cent. on landed price of spun crepe yarn at Rs. 4 works out to Rs. 2-12 (Rs. 3-12 minus Re. 1) making a total of Rs. 7-8 (Rs. 4-12 plus Rs. 2-12) as against cost price (ex-duty) of Rs. 6-12-9.

In the case of Fuji silk also (*vide* Statement D) while the present duty works out to Rs. 2-12 the difference between the proposed specific duty on raw silk Rs. 3-12 and the present duty of 25 per cent. on landed price of Fuji silk at Rs. 3-10 (*vide* Statement G) works out to Rs. 2-13-6 making a total of Rs. 5-9-6 as against the cost price ex-duty of Rs. 4-12-5.

In the case of Georgette (*vide* Statement E) the present duty works out to Rs. 7-10 while the difference between the proposed specific duty on raw silk, *i.e.*, Rs. 3-12 and the present duty on raw silk at 25 per cent., *i.e.*, Re. 1-1 works out to Rs. 2-11 making a total of Rs. 10-5. In this case, however, the duty is lower than 100 per cent. in relation to the cost price of Rs. 11-7-8.

It will be apparent from the foregoing that the general duty of 100 per cent. as previously suggested, is necessary, if the local silk weaving

industry is to be given adequate protection against competition from imported cloth.

8. *Duty of spun silk yarn.*—Spun silk is mostly used by the silk weaving concern at Peddapuram and by a few hand loom factories on the West Coast. As spun silk does not require to be subjected to certain processes preliminary to weaving such as cleaning, doubling and twisting and as it does not contain gum to the same extent as raw silk, and as a result does not lose weight in boiling and dyeing, it is used for the manufacture of cheap sarees, shirting and suiting cloths. The difference in spun silk as compared with reeled silk is that it is coarse and less lustrous. At present a duty of 25 per cent. is levied on imported spun silk yarns. As fabrics woven on hand loom from spun silk yarn compete with real silk I consider that a similar specific duty of Rs. 3-12 per lb. may suitably be levied in the case of imported spun silk. Two statements (F and G) showing the cost of production of a saree made on hand looms from real and spun silk are enclosed. It will be observed that while the cost of production of a saree woven on hand looms with Kollegal silk is Rs. 2-5-3 per yard, the cost of cloths made from spun silk with the proposed duty of Rs. 3-12 per lb. works out to Rs. 1-9-10. Although the difference in cost between these two classes of cloths will still be Rs. 11-5 per yard this difference in price will be compensated by the superior quality and lustre of the Kollegal saree made from real silk.

9. *Duty on artificial silk yarn.*—At present a duty of 18½ per cent. is levied on imported artificial silk yarn. As cloths woven on handlooms with artificial silk also compete with real silk cloths I consider that a duty of 200 per cent. may suitably be levied on imported art silk yarn. It may be stated that while the cost of production of a saree woven with Kollegal silk works out to Rs. 2-5-3 (*vide* Statement F) the cost of production of a saree, woven with artificial silk, with the proposed duty of 200 per cent. works out to Rs. 11-5 per yard (*vide* Statement H). Although the difference in cost between the two classes of cloths will still be Rs. 1-9-10 per yard this margin will be compensated by the superior intrinsic quality of real silk cloth and for the fact that it outlasts artificial silk fabrics by about five times on an average.

STATEMENT A.

DETAILS OF FINE VARIETIES OF SILK CLOTH.

Shin Paj—16 *Mommes* quality (*Heavy*)—120 *Mommes*=1 lb.

Tariff Value per lb.—Rs. 15-4.

Length—25 yards.

Width—45 inches.

Weight per piece—3¼ lbs.

Yards per lb. 6¾.

Date of landing—20th December, 1932.

	Rs.	A.	P.
Invoice price 38.45 Yens	33	1	0
Exchange 100 Yens=Rs. 86			
Expenses 6 per cent. (freight, landing, clearing and cartage)	1	15	9
Duty (50 per cent. on tariff value of Rs. 15-4 per lb. on 3¼ lbs.)	28	9	6
Total cost	63	10	3
Cost per piece of 25 yards	63	10	3
Cost per yard including duty	2	8	9
Cost per lb. excluding duty Rs. 35-0-9 on 3¼ lbs.	9	5	6
Wholesale selling price—25 yards piece	72	0	0
Sale price per yard	2	14	1

STATEMENT B.

Shin Paj—10 Mommès quality (Light).

Tariff value per lb.—Rs. 15-4.

Length—25 yards.

Width—45 inches.

Weight per piece—2½ lbs.

Yards per lb.—10 yards.

Date of landing—20th December, 1932.

	Rs.	A.	P.
Invoice price 27 Yens	23	3	6
Exchange 100 Yens=Rs. 86			
Expenses 6 per cent. (freight, landing, clearing and cartage)		1	6 3
Duty (50 per cent. on tariff value of Rs. 15-4) on 2½ lbs.	19	1	0
Total cost	43	10	9
Cost per piece of 25 yards	43	10	9
Cost per yard including duty	1	11	7
Cost per pound excluding duty Rs. 24-9-9 on 2½ lbs.	9	13	6
Wholesale selling price—25 yards' piece	45	0	0
Sale price per yard	1	12	10

STATEMENT C.

Spun Crepe.

Tariff value per lb. Rs. 9-8.

Length—25 yards.

Width—45 inches.

Weight per piece—3 lbs. 6 ozs.

Yards per lb.—7½ yards.

Date of landing—2nd April, 1933.

	Rs.	A.	P.
Invoice price 25.50 Yens	21	10	10
Exchange 100 Yens=Rs. 85			
Expenses 6 per cent. (freight, landing, clearing and cartage)		1	4 4
Duty (50 per cent. on tariff value of Rs. 9-8) on 3 lbs. 6 ozs.	16	0	6
Total cost	38	15	8
Cost per piece of 25 yards	38	15	8
Cost per yard including duty	1	8	11
Cost per lb. excluding duty Rs. 22-15-2 on 3 lbs. 6 ozs.	6	12	9
Wholesale selling price of 25 yards	42	0	0
Sale price per yard	1	10	11

STATEMENT D.

Fuji.

Tariff value per lb. Rs. 5-8.

Length—25 yards.

Width—45 inches.

Weight per piece—3 lbs. 6½ ozs.

Yards per lb.—7⅓ yards.

Date of landing—2nd April, 1933.

	Rs. A. P.
Invoice price 18·05 yens }	15 5 6
Exchange 100 yens=Rs. 85 }	
Expenses 6 per cent. (freight, landing, clearing and cartage)	0 14 9
Duty (50 per cent. on tariff value of Rs. 5-8) on 3 lbs. 6½ ozs.	9 5 11
Total cost	25 10 2
Cost per piece of 25 yards	25 10 2
Cost per yard including duty	1 0 5
Cost per lb. excluding duty Rs. 16-4-3 on 3 lbs. 6½ ozs.	4 12 5
Wholesale selling price of 25 yards	27 0 0
Sale price per yard	1 1 3

STATEMENT E.

Georgette.

Tariff value per lb. Rs. 15-4.

Length—12½ yards.

Width—45 inches.

Weight per piece—13¼ ozs.

Yards per pound—15⅓ yards.

Date of landing—23rd October, 1932.

	Rs. A. P.
Invoice price 9·75 yens }	8 15 6
Exchange 100 yens=Rs. 92 }	
Expenses 6 per cent.	0 8 7
Duty (50 per cent. on tariff value of Rs. 15-4) on 13¼ ozs.	6 5 0
Total cost	15 13 1
Cost per piece of 12½ yards	15 13 1
Cost per yard including duty	1 4 3
Cost per pound excluding duty Rs. 9-8-1 × 16 on 13¼ ozs.	11 7 8
Wholesale selling price of 12½ yards	22 0 0
Sale price per yard	1 12 2

Comparative statement.

Description.	Weight per piece.	Cost per piece ex-duty.	Cost per lb. ex-duty.	Tariff value per lb.	Duty per lb. calculated on 50% of Tariff value.
	Lbs. oz.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Shin Paj (Heavy) . . .	3½ 0	35 0 9	9 5 6	15 4 0	7 10 0
Shin Paj (Light) . . .	2½ 0	24 9 9	9 13 6	15 4 0	7 10 0
Spun Crepe . . .	3½ 0	22 15 2	6 12 9	9 8 0	4 12 0
Fuji . . .	3 0	16 4 3	4 12 5	5 8 0	2 12 0
Georgette . . .	0 6½ 0 3½	9 8 1	11 7 8	15 4 0	7 10 0

STATEMENT F.

COST OF PRODUCTION OF HAND WOVEN SAREE MADE FROM SUPERIOR QUALITY OF KOLLEGAJ SILK.

Description.

Length—9 yards.

Width—45 inches.

Weight per piece—1½ lbs.

Weight per yard—2·67 ozs.

No. of yards per lb.—6 yards.

Particulars.

	Ozs.
Weight of warp and weft required per yard of cloth	2·67
Allow 25 per cent. loss in degumming $\frac{2·67 \times 100}{75}$	
(3·56-2·67)	0·89
Allow 2 per cent. waste in winding, cleaning, etc.	
$\frac{3·56 \times 2}{100}$	0·07
Total	3·63

Cost per yard.

	Rs. A. P.
Cost of 3·63 ozs. of superior quality Kollegal silk at Rs. 5·8 per lb.	1 3 11
Manufacturing charges	1 1 4
Cost per yard	2 5 3

STATEMENT G.

STATEMENT OF COST OF HAND WOVEN SAREE MADE FROM IMPORTED SPUN SILK.

Description.

Length—9 yards.
 Width—45 inches.
 Weight per piece—1½ lbs.
 Weight per yard—2·67 ozs.
 No. of yards per lb.—6 yards.

Particulars.

	Ozs.
Weight of warp and weft required per yard . . .	2·67
Allow 1 per cent. for waste	0·08
Total	<u>2·7</u>

Cost per yard.

	Rs. A. P.
Cost of 2·7 ozs. of spun silk at Rs. 7·6 per lb.	1 3 1
	Rs. A.
Cost of spun silk (ex-duty)	3 10
Proposed duty	3 12
Cost per lb.	<u>7 6</u>
Transport and commission	0 0 6
Manufacturing charges	0 5 5
Cost per yard	<u>1 9 10</u>

STATEMENT H.

COST OF PRODUCTION OF HAND WOVEN SAREE MADE FROM IMPORTED ARTIFICIAL SILK.

Description.

Length—9 yards.
 Width—45 inches.
 Weight per piece—1½ lbs.
 Weight per yard—2·67 ozs.
 No. of yards per lb.—6 yards.

Particulars.

	Ozs.
Weight of warp and weft required per yard . . .	2·67
Allow 2 per cent. waste	0·05
	<u>2·72</u>

		Rs. A. P.
Cost of 2·72 ozs. of art silk at Rs. 2-8-6 per lb.		0 6 11
	Rs. A. P.	
Cost of artificial silk (ex-duty)		
per lb.	0 13 6	
Proposed duty of 200 per cent. .	1 11 0	
	<hr/>	
Cost per lb.	2 8 6	
	<hr/>	
Transport and commission		0 0 3
Manufacturing charges		0 4 3
		<hr/>
Cost per yard		0 11 5
		<hr/>

Government of the Punjab,

Letter No. 3337-I. & L., dated the 6th February, 1933.

Subject:—SERICULTURAL INDUSTRY.

With reference to your letter No. 9, dated the 3rd January, 1933, on the subject noted above, I am directed by the Governor-in-Council to forward for the information of the Tariff Board, copies, with six spare copies, each of the letters (1) No. 343/68-64, dated the 25th January, 1933, from the Director of Agriculture, Punjab, and (2) No. 1185, dated the 26th January, 1933, from the Director of Industries, Punjab, containing replies to the various items of the questionnaire which are of interest to the local Government.

Enclosure No. 1.

No. 1185.

From

The Director of Industries,
Punjab,

To

The Secretary to Government, Punjab,
Finance Department, Lahore.

Dated Lahore, the 26th January, 1933.

Sir,

With reference to Punjab Government endorsement No. 1016-I. & L., dated the 12th January 1933, I have the honour to state that sericulture is the concern of the Agricultural Department in the Punjab. Accordingly the questionnaire primarily concerns that Department and I am submitting replies only to such questions as have some connection with the handloom silk weaving in this province.

Replies to the questionnaire.

(Replies are given only to such questions as have a concern with the Industries Department.)

37. In the Punjab raw silk is used for weaving and embroidery.

38 (i) The Punjab at present consumes the undermentioned quantities of raw silk:—

	Quantity.	Value.
	lbs.	Rs.
Indian	40,400	2,51,100
Foreign	227,700	9,92,200
Total	268,100	12,43,300

(ii) The quantity of raw silk produced in the Punjab may be said to be negligible at present, for in the year 1928 it was approximately 80 maunds and in the year 1932 it came down to 12 maunds.

45. The undermentioned kinds of imported silk compete with the different kinds of Indian silk in the Punjab:—

Raw silk from Bokhara and Chinese origin, both white and yellow, Shanghai, other kinds.

Spun silk.

Cardonett silk of counts between 2/60s and 2/280s.

Raw silk and yarn from Yarkand.

A part of the imported yarn is used for embroidery purposes. The handloom weaver uses the following kinds of imported silk:—

Raw silk from Yarkand, both in warps and hanks.

Spun silk from Japan, Italy, Switzerland, etc.

47. From the manufacturing point of view the Indian silk as available in the Punjab (it comes almost entirely from Kashmere) compares favourably in colour, behaviour, and in winding qualities, with the imported silk, which has, however, the merit which is a great consideration in these days of competition, of being cheaper.

48. Of the exporting countries, Japan is the most important, and it appears that the imports from Japan during the year 1931-32 were about double the imports during 1930-31, *vide* the figures below:—

	Value of imports.
	Rs.
1930-31	64,711
1931-32	1,58,943

In the case of Japan the great fluctuations in currency have helped it in exporting larger quantities to India. The normal exchange value of the Japanese currency stood somewhere about 2-10s to a yen, while the present value stands somewhere at 1-2s.

49. Silk-waste is not imported into the Punjab.

50. In the Punjab no attempt has been made to instal a spinning plant for the manufacture of spun silk out of silk-waste, possibly because this province does not import silk waste and also because no waste is locally available.

56. The Punjab is not an important province from the point of view of sericultural industry. Before protection is granted, the matters dealt with in my letter No. 320, dated the 10th January, 1933, to the address of the Secretary to Government, Punjab, Finance Department, a copy of which has, I believe, been supplied to the Tariff Board, should be given consideration. In any proposals that may be considered in this connection it should be borne in mind that unless raw silk and silk yarn are available at low prices the silk weaving industry will be very greatly affected, for without cheap yarn the silk weaver will not be able to compete with the cheap

imported stuff received especially from China and Japan. As it is, the competition from those countries is killing the silk weaving industry of this province. The best way to help the sericultural industry and the silk weaving industry would be to impose additional heavy duty both on imported silk manufactures, textiles, etc., and on imported yarn, sea borne as well as land borne.

59. In the Punjab *daryai* is one of the chief varieties of silk piecegoods so far manufactured. In *daryai* the cost of raw silk represents 20/32 of the total cost. Now raw silk is twisted in this province and hence it is not possible to give the comparative costs.

Enclosure No. 2.

No. 343/68—64.

From

H. R. STEWART, Esq., I. A. S.,
Director of Agriculture, Punjab,

To

The Secretary to Government, Punjab,
Finance Department, Lahore.

Dated Lahore, the 25th January, 1933.

Subject:—ENQUIRY INTO THE SERICULTURAL INDUSTRY BY THE TARIFF BOARD.

Sir,

With reference to your endorsement No. 1016-I. & L., dated the 12th January, 1933, forwarding a copy of the questionnaire relating to the enquiry cited above as subject, I have the honour to forward herewith my replies to the various items of the questionnaire, with six spare copies.

1. The history of sericulture in the Punjab may be briefly summarized in the words of Mr. M. A. Husain, in his "Preliminary Report on the Extension of Sericulture in the Punjab" as follows:—

"The earliest attempt of our times was made in 1836 at Ambala, but as would be expected from such attempts, isolated unorganised and unguided by any definite policy as they were, nowhere was the work continued. It was in the seventies that silk-worm rearing was attempted in the Punjab as a business proposition. The work had been going on in Gurdaspur and Kangra for some time, and in 1873 there were 80 families of rearer in Gurdaspur District alone. Mr. Halsey, an enthusiastic and enterprising gentleman, gave great impetus to this industry. The work progressed for a number of years, but it was found that, without exception, all the rearers endeavoured to rear a much larger number of worms than they could either house or feed, and also paid no heed to cleanliness. The inevitable result was a poor crop. Moreover, it was from eggs laid by the moths reared under extremely unhygienic conditions that the next crop was raised. Thus deterioration and disease set in.

By this time the Government had begun to take interest in this undertaking, and, with a view to stop deterioration and improve the quality of the silk, sanctioned a grant of Rs. 1,000 to be given in prizes for the best cocoons of local production. The first exhibition of silk cocoons was held in 1876 with 98 exhibitors, and annual exhibitions followed till 1890. In the beginning the quality of the cocoons showed a great improvement and the number of the exhibitors also increased. In 1882, the year when sericulture was at its highest in the Punjab, there were some 720 exhibitors and a sum of Rs. 1,659 was given away as prizes.

The next twenty years were the years of decline. In 1879 the soul of this industry, Mr. Halsey died. By 1880 the disease had started both in the indigenous and the foreign seed and within a few years the output of silk was considerably reduced. At this critical time Mr. Halsey's filature was

bought by Messrs. Lister & Co., who suffered heavy losses. By 1886 the supply of cocoons had diminished so much that Listers removed their filatures from Sujampur to Dehra Dun. In 1890 there were only 169 exhibitors in the exhibition. It was during this year that Listers made their own rearing huts, but achieved no success, and left the province after heavy losses.

The industry lingered on for some time, and with the close of the nineteenth century it died. By 1899 it was non-existent in Kangra and almost non-existent in Gurdaspur. Thus ended the short but glorious career of sericulture in the Punjab.

For about 10 years nothing was attempted. In 1907 Sir Thomas Wardle addressed the India Office and urged the revival of sericulture in the Punjab; and it was at the end of the first decade of the twentieth century that the problem was entrusted to the Agricultural Department. So with 1909 begins the era of the revival of sericulture in this province. During this year experiments in rearing silk-worms were started at Gurdaspur (23 ounces), Changa Manga (2 ounces) and Lyallpur (1 ounce). The seed was obtained from France through the Director of Sericulture, Kashmir. The experiments at all these places once more proved the suitability of this province for sericulture.

In 1910, Sheikh Ghulam Sadiq, an enterprising Kashmiri merchant of Amritsar, interested himself in this work, and within 6 years increased the quantity of silk-seed distributed by him from 199 ounces in 1910 to 400 ounces in 1916, and maintained it at this figure till 1921. His death (1921) has removed a very enthusiastic sericulturist from amongst us and we very much regret this loss.

It was only in 1913 that the Entomological Section started the work with 51 ounces, and by 1920 had pushed it to 600 ounces. With appointment of the Entomologist, the work expanded further and 1,750 ounces were distributed in 1921.

Ever since the revival in 1909, fresh seed has been imported from France, 'hibernated' in the hills and distributed to the rearers in the beginning of February.

It is evident from the above that during the last 10 years there has been a steady progress, which has been very rapid during 1920 and 1921, and the serious failures of the past have not repeated themselves. Between 1921-1929 the sericulture industry was in a most prosperous condition in this province and the quantity of silk-seed reared reached the high figure of 2,825 ounces in 1922. During the last three years or so, however, this industry has, unfortunately, suffered a very serious decline and at the moment it stands exactly where it stood some sixteen years back.

In 1932 some 180 ounces of silk-seed were distributed among 147 silk-worm rearers in 90 villages in 18 different districts of the province, in addition to 40 school teachers who also reared silk-worms on a small scale. All of these rearers are only partly dependent upon this industry for their livelihood. Reeling is done by the rearers in very few cases, and their number does not exceed half a dozen.

2. There is a special staff sanctioned by the Agricultural Department for the supervision of sericultural operations in this province. To begin with, this staff prepares a list of intending silk-worm rearers in various localities, and the annual supply of silk-seed is obtained from France according to the estimate of seed requirements thus formed. After the seed has been properly hibernated at Dalhousie, it is distributed among silk-worm rearers by the Sericultural Staff in the month of February every year. In previous years, silk-seed used to be issued to rearers on credit, and its price was recovered subsequently at the time of Silk Cocoon Exhibition held by the Department, at Gurdaspur, where the majority of rearers brought their produce. Since the system of selling silk-seed on credit resulted in the accumulation of heavy arrears, the seed is now sold on cash payment. The produce received at the Exhibition is offered for sale, by open auction, to

the buyers who are present at the auction. In case their offer was considered reasonable, the cocoon crop was sold to them, otherwise the Department used to purchase the entire crop, and either sold it piece-meal from time to time subsequently, or reeled it and sold raw silk for which there was always a more or less ready market. Some of the silk-worm rearers instead of bringing their produce to the Exhibition at Gurdaspur arranged to sell it directly to certain buyers in their own villages. During the last two years or so, however, the Department of Agriculture has not purchased any cocoons, and the entire crop is purchased by certain dealers in silk from Amritsar.

Year.	Weight of cocoons raised.	Value of cocoons.	Quantity of silk yarn produced.	Value of silk yarn.
1	2	3	4	5
	Mds.	Rs.	Mds.	Rs.
1928	285	40,000	80	60,800
1929	246	29,000	65	48,400
1930	200	22,000	50	30,000
1931	60	5,000	20	19,400
1932	50	4,000	12	5,280

There was no material variation between the figures quoted above and our estimates of the maximum production.

4. The content of silk from the cocoons produced in this province varies from 27 to 30 per cent. by weight according to the quality of the cocoons reeled. As regards the comparative yield from Chinese and Japanese cocoons, and the fact that some filatures in India have closed down for an adequate supply of cocoons, no information is available in my office records.

5. The silk-worms reared in the Punjab are the univoltine, mulberry silk-worms, *Bombaymori*. The silk-seed is distributed early in February, every year, and is hatched by the rearers either by means of the heat of the body, or the fire, and the worms are reared on mats spread on the ground, or on *charpaies*, inside the room. In a very few cases wooden racks are also used for the purpose. Mulberry leaves are supplied to the worms at least twice a day. After the cocoons have been formed they are spread out in the sun to kill the chrysalis inside to prevent the latter from developing into moths. The cocoon crop is, as a rule, ready for sale by the middle of April after it has been fully dried in the sun. The duration of the various stages is as follows:—

Egg—

Pre-hibernation period—6 months.

Hibernation period—5 months.

Incubation—10-12 days.

1st instar—6 days.

2nd instar—5 days.

3rd instar—7 days.

4th instar—6 days.

5th instar—9 days.

Cocoon spinning—3-5 days.

Transference of caterpillars into chrysalis—2-3 days.

Moths emerge after—2-3 weeks.

Copulation—1-6 hours.

Egg-laying—24 hours.

6. (a) No information can be given about this question, as no rearing house was ever constructed by us and the people as a rule rear the worms in their homes.

(b) No definite data is available regarding this question.

7. I am not in a position to supply any information on this question.

8. The worms are reared in this province from silk-seed imported from France. To the best of my knowledge, the production of seed does not exist as a separate organisation in this province. The Department of Agriculture, however, in past year made a few attempts at producing silk-seed from the cocoons raised under their supervision, and the seed thus produced gave fairly satisfactory results. The price of silk-seed obtained from France varies from Rs. 2-8 to Rs. 3 per ounce, according to the rates of exchange prevailing at the time.

9. The worms reared in this province are univoltine. The approximate number of worms produced from an ounce of seed is 25,000. The quantity of silk-seed hatched in a year during the last five years is as follows:—

	Ozs.
1928	1,853
1929	1,476
1930	1,220
1931	420
1932	145

10. The worms are fed on mulberry leaves. The majority of rearers obtain their supply of mulberry leaf from the trees growing along with the banks of certain canals which run through the localities where this industry is being carried out. In some cases leaves are obtained from mulberry plantations belonging to the Forest Department, while in others from the trees growing on the roads belonging to certain District Boards. In a few cases, the rearers have mulberry trees growing in their own land and their leaves are used for feeding the worms. The silk-worm rearers who collect the leaves from mulberry trees growing along the canal banks or on District Board roads have to pay at the rate of Re. 1 per ounce of silk-seed reared. The Forest Department on the other hand, as a rule, permits free collection of leaves from their plantations. Definite figures of the cost of cultivation of mulberry trees per acre of land and other particulars required in connection with the yield of leaf per tree, the average life of the tree, etc., etc., are not available in my office records. The quantity of leaves required to feed the worms from an ounce of seed, per day, is estimated as follows:—

In first stage—5 seers.

In second stage—15 seers.

In third stage—45 seers,

In fourth stage—135 seers.

In fifth stage—about 25 maunds.

The mulberry plantations which the Department of Agriculture was maintaining in Gurdaspur District till about two years ago were propagated either from seedlings grown in nurseries or from cuttings. About 2,000 mulberry plants can be grown in an acre of land.

13. Although no definite figures are obtainable under this head, yet in my opinion, about 15 per cent. of the worms die before reaching the cocoon

forming stage, partly on account of rearing them under unhygienic conditions, partly due to insufficient supply of clean food, and partly due to certain diseases.

14. The only two diseases from which mulberry worms are known to suffer in this province are Grasserie and Flatcherie. Whenever the outbreak of any of these diseases is reported from a silk-worm rearing locality, a member of the Sericultural Staff personally visits that locality and the diseased worms are at once segregated from the rest and destroyed under his personal supervision, and the beds of worms are disinfected. Feeding the worms on dusty, dewy or fermented leaves, lack of fresh air and overcrowding of worms, exposure of worms to excessive heat, sudden change of diet from tender to tough leaves are supposed to be some of the main causes which produce these diseases in the worms.

15. Climate is, in my opinion, the governing factor in the development of sericulture, and the localities where silk-worm rearing is being carried out in this province are suitable for this industry both as regards temperature and humidity.

16. The average yield of cocoons per ounce of seed is 7 to 10 seers.

17. The expenditure incurred on the production of cocoons consists of the prices of silk-seed which amounts to about Rs. 2.8 per ounce, and the price of mulberry leaves which is Re. 1 per ounce of seed reared. Apart from these two items, a silk-worm rearer has not to incur any expenditure by way of cost of labour or cost of appliances. He himself collects the leaves for feeding the worms, and in very rare cases are any appliances used in rearing them.

18. Practically, the entire crop of cocoons produced in this province is reeled and none is kept for the production of seed. The average value of the former during the last five years is given below:—

		Quantity.	Value.
		Mds.	Rs.
1928	. . . . .	285	40,000
1929	. . . . .	246	29,000
1930	. . . . .	200	22,000
1931	. . . . .	60	5,000
1932	. . . . .	50	4,000

19. The rearer of worms in this province sells his produce as cocoons and does not reel it himself. He sells his crop immediately after it is ready, and does not keep it till prices suit him. The average prices per one maund of dry cocoons obtained in each of the last 5 years are as under:—

	Rs.
1928	130
1929	125
1930	110
1931	85
1932	80

20. The entire production of raw silk is reeled by hand on a single charka. To the best of my knowledge, power driven machinery is not in use in this province.

21. (1) & (2) The quantity of raw silk reeled and the waste produced, with the average price obtainable for each are given in the following statement. Since the Department of Agriculture is not doing any silk-reeling

for the last three years or so, the information cannot be vouch-safed as very accurate:—

Year.	Quantity of raw silk produced.	Value.	Quantity of waste produced.	Value.
1	2	3	4	5
	Mds. Srs.	Rs.	Mds. Srs.	Rs.
1928	18 27	12,700	3 0	180
1929	18 26	12,682	5 20	330
1930	2 24	1,560	0 18	25
1931 . . . . .	..	..	..	..
1932 . . . . .	..	..	..	..

The yield of silk varies from 27 to 30 per cent. by weight of the cocoons reeled. The average proportion of waste to a pound of raw silk will be approximately 6 to 1. The answer relates to silk reeled by hand.

22. The initial cost of the equipment for hand reeling would, in my opinion, amount to about Rs. 60 per basin. About 2½ seers of cocoons yielding about 1/3rd the quantity of raw silk by weight could be reeled in a day of 8 working hours. Such an equipment with occasional minor repairs should give about five years' good service.

23. The total expenditure upon reeling one pound of raw silk by charkha as calculated from the working of a reeling factory at Amritsar would be as follows:—

	Rs. A.
Average cost of cocoons	3 0
Cost of labour	0 12
Cost of light and fuel	0 3
Cost of water and soap	0 2
Cost of supervision and management	Nil. The owner of the silk factory supervises the reeling operations personally
Cost of repairs and maintenance	0 1
Selling expenses	Nil
Other expenses	0 2
Total	4 4

24. I am not in a position to give any opinion regarding this question.

25. The maximum capacity of the filature for which costs are given above would be to reel 2½ seers of cocoons per day. These would yield about 10-12 chataks of silk and 2 chataks of silk-waste.

26. The approximate estimate of the capital required to establish a filature of the kind in existence at Amritsar would be about Rs. 60 per basin.

27. I have no information.

28. The total number of people, including school teachers, engaged in silk-worm rearing in this province was 2,342 in 1926-27 and 147 in 1932.

29. The Department of Agriculture has not been maintaining any filature during the last three years or so. An adequate supply of skilled labour is available. A period of 3 months should be sufficient to train a lay man to acquire the minimum skill necessary.

30. (i) The rate of wages paid to a reeler working in a filature at Amritsar is about As. 12 per day.

(ii) No opinion can be given on this point.

(iii) No information is available on this point, but as far as I know, there are no proper facilities available for technical education for reelers, rearers or other skilled labour in this province.

31. Since the filature at Sujampur was closed down about three years ago, no information under this head can be supplied.

32. I am not in a position to supply any figures relating to this question.

33-38. These questions do not relate to this Department.

39. To the best of my knowledge, the entire quantity of raw silk and waste produced by the Department of Agriculture in their reeling factory at Sujampur during the last 5 years of the working of the factory were used up locally at Amritsar, Multan and Peshawar.

I am not in a position to supply information regarding the remaining questions.

Government of the Central Provinces.

Letter No. 384/289-XIII, dated the 17th February, 1933.

Subject:—PROTECTION OF SERICULTURE INDUSTRY.

With reference to your letter No. 9, dated the 3rd January, 1933, on the subject noted above, I am directed by the Governor-in-Council to forward the replies to the questionnaire so far as this province is concerned.

Enclosure.

Replies to questionnaire issued by the Tariff Board in connection with its enquiry into the sericultural industry.

Reference:—Letter No. 9, dated Poona, the 3rd January, 1933, from the Secretary, Tariff Board, to the Secretary to the Government of the Central Provinces.

Tasar-growing is the only form of sericulture existing in this province. The replies to the questionnaire therefore refer entirely to tasar silk industry unless otherwise stated.

1. Tasar rearing appears to be carried on for centuries in this province. The industry was formerly conducted on a large scale. At present the industry exists in the jungle tracts of the districts of Bhandara, Chanda, Balaghat, Bilaspur and Chhindwara.

(a) There are no people entirely engaged in tasar rearing.

(b) It is only a part-time occupation and in no case is it the principal occupation of the rearers.

Reelers are the womenfolk of weavers' families. They are about 2,000 in number. Others partly dependent upon tasar rearing are about 5,000 persons.

2. Paragraph 3 of my note on sericulture.

3. A kahan—20×80 tasar cocoons (this varies).

Kahans of cocoons producing 14 chatacks to 1 seer of yarn per kahan.

1923 . . .	110,000	1928 . . .	40,000
1924 . . .	70,000	1929 . . .	25,000
1925 . . .	50,000	1930 . . .	25,000
1926 . . .	150,000	1931 . . .	25,000
1927 . . .	30,000	1932 . . .	125,000

Price of cocoons per kahan.

	Rs.		Rs.
1923	10	1928	8
1924	10	1929	7
1925	10	1930	7
1926	10	1931	6
1927	8	1932	5

During the decade preceding 1924 the production of cocoons touched the maximum limit of two lakhs kahans. All were consumed locally. It is difficult to specify detailed causes of the gradual fall, but these must be the same as have led to the deterioration of most cottage industries.

4. The silk content in local cocoons is according to a reeling test conducted by the Weaving Superintendent of the Industries Department at Sironcha on the 21st January, 1933, was 13/16 oz. for 30 cocoons fresh reeled tasar thread. This works to about 107½ tolas per kahan, i.e., 27½ tolas above one seer. But as the presence of moisture in fresh reeled thread is about 25 to 30 tolas per kahan the silk content per kahan is about one seer coming down to 14 chatacks in inferior cocoons. Silk content per one cocoon is 1/20 of a tola approximately. For want of cocoons many reelers and weavers have taken to cotton weaving and other professions (about 1,000 families).

5. Paragraph 4 of my note on sericulture in the Central Provinces up to "at the rate of 100 cocoons or a few more per rupee" on page 5.

6-9. Do not refer to tasar rearing.

10. *Cost of food plants.*—Asan saj, yen or Hatna trees (*Terminalia Tomentosa*) is the tree used for food of tasar worms. Rent paid for rearing worms in one particular portion of a malguzar's jungle 10 years back was Rs. 5 per family of rearers while it gradually rose to Rs. 10 to Rs. 12 in 1932.

11-19. Do not refer to tasar rearing.

20. All the tasar silk produced is reeled by hand by means of a reel which is in the form of a flat piece of plank with a handle shaped thus



The reeler keeps in a shallow plate 8 boiled cocoons and removes the top fluff with the finger and as soon as a continuous thread comes out uniformly she leaves it and takes out thread from the other 7 cocoons. These 8 threads she twists on her thigh and wraps round the reel replacing finished cocoons by fresh ones. A reeler finishes nearly 100 cocoons per day of six to eight hours.

21. Tasar cocoons are reeled by hand as per process above described. 800 cocoons produce one lb. of raw silk and an equal quantity of waste. Prices for the last ten years for raw silk and waste are as follows:—

Year.	Raw silk tasar.		Waste.
	Per lb.		Per lb.
	Rs.	A.	A. P.
1923	20	0	4 0
1924	20	0	4 0
1925	20	0	4 0
1926	14	0	4 0
1927	14	0	4 0
1928	14	0	4 0
1929	16	0	3 0
1930	8	0	2 0
1931	5	8	1 6
1932	8	0	2 0
At present on the 6th February, 1933 .			6 0 1 6

22. Initial cost of equipment commonly used for hand reeling is As. 4. It lasts usually about five years. It gives an outturn of about 5 tolas per day of raw silk and an equal quantity of waste.

23-38. Do not refer to tasar.

39. Tasar produced is already given in answer to question No. 3. This is not exported outside the Central Provinces. The marketing method of tasar cocoons is through dealers and dalals or brokers who advance money to rearers and visit them in their houses after January crop of cocoons is gathered. They purchase cocoons at 25 to 50 'pans' (i.e., a unit of 80 cocoons each pan) and sell the same at 20 pans a kahan to weavers and other merchants in towns. Professional reelers either purchase cocoons directly from rearers or from brokers and sell reeled thread in the form of a warp of 6,000 threads for Rs. 11 at the present moment. It was Rs. 14 in the first week of January.

40-60. Do not directly concern this province and its sericultural industry and the general remarks of the Director of Industries' memorandum No. 2710, dated the 16th January, 1933, cover all the relevant points raised in this questionnaire.

Government of Bombay.

Letter No. 9483-D., dated the 20th February, 1933.

Subject:—ENQUIRY INTO THE SERICULTURAL INDUSTRY.

I am directed by the Government of Bombay (Transferred Departments) to refer to your letter * * * No. 9, dated the 3rd January, 1933, * * * on the subject of the enquiry by the Tariff Board into the sericultural industry and to forward herewith for the information of the Board copies of the letters from the Director of Industries, Bombay Presidency, Nos. I. A. 66-903, I. A. 66-904 and I. A. 66-905, dated the 16th February, 1933, together with four copies of each of their accompaniments supplying information with reference to those questions which affect the handloom weaving industry in the Bombay Presidency.

2. The Government of Bombay prefer to defer their opinion on general questions until the Report of the Board is before them. They will be prepared, however, to formulate and communicate to the Board their views in respect of any particular point or points which may arise in the course of the enquiry and on which the Board may specially desire to have the views of the local Government to assist them in their investigation.

Enclosure.

No. I. A. 66-904.
Office of the Director of Industries,
Old Custom House,
Bombay, 16th February, 1933.

From

P. B. Advani, Esq., M.Sc.Tech., M.I.E., J.P.,
Director of Industries, Bombay.

To

The Secretary to Government,
General Department, Bombay.

Subject :—SERICULTURE INDUSTRY—ENQUIRY INTO—BY TARIFF BOARD.

Reference :—General Department Memorandum No. 9483-D., dated the 7th January, 1933.

Sir,

In continuation of this office No. I. A. 66-903, dated the 16th February, 1933, I have the honour to forward four copies of my remarks on Questions Nos. 37, 42, 45, 47, 51 and 58 of the Questionnaire issued by the Tariff Board under their letter No. 9 of 3rd January, 1933, to Government in the General Department. Other questions do not concern this Department as there is no sericulture industry in the Bombay Presidency.

Answers to some of the questions contained in the Questionnaire issued by the Tariff Board under cover of their letter No. 9, dated the 3rd January, 1933, addressed to the Secretary to the Government of Bombay, General Department.

37. In hand weaving, raw silk is used in,

(1) Kinkhawb of gold and silk threads and of gold and silver threads.

(2) Silk sarees,

(a) with gold and silver threads.

(b) with ornamental borders,

(c) with ornamental ground and borders,

(d) with solid borders,

(e) with solid headings.

(3) Khans,

(a) with gold and silver thread borders and ground,

(b) with gold and silver thread borders,

(c) with silk borders and silk ground.

(4) Shirtings,

(a) with pure warp and woof,

(b) with mercerised warp and woof silk,

(c) with silk warp and woof artificial silk.

(5) Coatings similar as shirtings above.

(6) Head dresses,

(a) with gold and silver thread borders and ground,

(b) with gold and silver thread borders and Palav,

(c) with warp and woof silk pure,

(d) with warp silk and woof artificial.

(7) Palavs, with gold and silver threads simple and with artistic designs.

- (8) Borders and laces, with gold and silver and gold threads simple and artistic designs.

The following are the other industries in which the silk is used:—

- (1) In the preparation of gold and silver threads,
- (2) In the preparation of scarfs and kamarbands,
- (3) In the preparation of twisted silk for knitting and embroidery.

With cotton, it is used in preparation of sarees in borders and headings.

42. The present method of sorting and grading the Indian silk is in accordance with the fineness, evenness and lustre possessed by the fibre. The sorting is rough and ready, and in the weaving centres the silk is required to be re-reeled and spun to the qualities required by a separate class of persons styled as Patwegars or Khatries. The several qualities produced at each silk producing centre are not known to the weavers. The silk is only known by the province from which it has been imported. The Bengal silk is known as 'Jangipur' silk and that from Mysore is 'Mysore' or 'Bangalore' silk. The hand weavers are under the impression that silk which they call as "Calcutta" is from Bengal, but it is not so. It is 'Kath' silk imported from China. Kashmir silk is not known to the handloom weavers in many centres. As the weavers are dependent on the re-reelers and spinners, it is the latter who can introduce Indian silk yarn similar in quality to the imported silk. The weavers of Poona, Nasik and Yeola say that the China silk renders a good lustre after it is dyed and woven. Besides China silk is finely reeled and in the re-reeling operation there is little waste. The weavers in the Southern Districts hold diametrically opposite opinion about the China silk. Besides, they say that weight for weight in China silk the quantity available is considerably smaller in comparison with that of the Bangalore silk. This might perhaps be due to the hygroscopic nature of the silk. If the producing centres would take to the production of definite qualities as are required by definite centres and as would not make re-reeling and spinning operations at the weaving centres necessary, it is likely that the Indian silk would stand a better chance of sale than at present.

45. The following are the imported varieties of silk required by the handloom weavers many of which compete with the Indian silk in the Bombay Presidency:—

IMPORTED FOREIGN SILK.		INDIAN.	
China.	Indian name.	Bangalore.	Bengal.
Kath	Calcutta	Kempnalli .	Bhangar-Gundi.
Siam	Sivan	Silk-gatta.	
Steam	Esteam	Jod-kori.	
Laying	Lankin	Itlapur.	
Manchow	Mayya	Nandi.	
Panjam	Panjam.		
Can-pass	(Campass.		
	(Kinpass.		

The numbers required are—20/22, 13/15, 14/16 which compete with Indian product.

Imported silk yarn of 230/2, 210/2, 160/2, 140/2, 120/2, 60/2, 20/22, 14/16, 13/15 is required.

47. The quality of imported raw silk compares well with Indian silk. Imported silk is, however, found cheaper by Re. 1 to Rs. 2 per lb.

51. As far as the internal trade of Indian silk yarn is concerned, if the producing centres of silk had had made an intensive propaganda for the publicity of their produce in silk weaving centres before the movement of Swadeshi, their industry might not perhaps have been so seriously affected. It was a general impression among the handloom weavers that Indian silk matching to that of China in every respect was not available, and therefore, though there was a demand in the beginning of the movement for the Indian silk bordered sarees, it could not be met by the handloom weavers. Besides, the unit of weight observed at each producing centre and weaving centre of silk is not uniform. The Bengal silk quotations are per seer of 80 tolas while that of Bangalore are per seer of 26½ tolas. The unit of weight for selling rate is a seer of 76 tolas at Poona of 25 tolas at Gadag and 24 tolas at Hubli. In order that uniform system of unit of weight for the rates of various kinds of silk should come into force, it may be made obligatory on the part of the producing centres of silk,

- (1) that the raw silk is re-reeled and so spun and twisted as would meet the demands of the hand weavers,
- (2) that each hank of silk so spun and twisted should be in a definite form and weight,
- (3) that the minimum size of the packet of the hanks so made should be definitely made, and
- (4) that silk should only be sold in the form so fixed.

In Manchester, the counts of silk express the weight in drams per hank of 1,000 yards, while in some places the counts of silk are expressed in deniers. The weight of a denier is 0.0531 grams and the standard of length of fibre taken is 476 metres. Thus silk of 10 deniers would weigh 0.531 grams for a length of 476 metres. Similarly, the Indian silk may have its counts expressed in Tolas. For this purpose, the producing centres would be required to maintain "conditioning" department to arrive at the net weight of silk.

If this is made obligatory on the part of the Indian silk producers, it will have to be equally obligatory for the imported silk to pass the test of "conditioning" at the Ports of import in India and before it is allowed to go in the interior of the country.

The producing centres of silk will be well advised to open Depôts in the weaving centres for the sale of different kinds of Indian silks or to arrange to render wide publicity to their produce through the Department of Industries and the Co-operative Department.

58. Silk cloth produced in India will be costlier and there is likely to be less demand for hand made silk cloth and weavers are likely to get less wages. If duty is increased on raw silk and yarn, duty on imported silk cloths must also be suitably raised as otherwise both the textile industry and hand weavers will suffer considerably.

Government of the United Provinces.

Letter No. 129-I./XVIII-478, dated the 21st February, 1933.

In reply to your letter No. 9, dated January 3, 1933, about the silk industry, I am directed to say that this Government have nothing to add to their letter No. 60-I of February 1, 1933, save to point out, in answer to question No. 15, that an officer (M. Md. Kusanna) was placed on special duty in the year 1919-20 to investigate the possibility of sericulture in this province. He recommended the districts of Dehra Dun, Saharanpur, Moradabad, and Bijnor as being the most suitable for sericulture as he found that the climatic conditions in these districts approximate to those mentioned in question No. 15.

2. No data are available to say definitely whether climate is the most important factor in the development of sericulture or whether the governing features from the climate point of view are temperature and humidity.

Government of Assam.

Letter No. 397-E., dated the 21st February, 1933.

I am directed to forward a copy of answers (with six spare copies) furnished by the Superintendent of Sericulture, Assam, to the questionnaire received with your letter No. 9, dated the 3rd January, 1933, and to say that the local Government have no further remarks to make, beyond what was stated in their letter of 8th February, 1933, No. 313-E.

Enclosure.

ANSWER TO TARIFF BOARD'S QUESTIONNAIRE (SECOND SERIES).

1. The province of Assam is mainly concerned with muga and eri and to a small extent with pat (mulberry silk). The first two species of silk-worms are known to and reared by all classes of people specially of the Assam Valley. Some of the hill tribes of the province also rear muga and eri silk-worms. Mulberry silk-worms are reared by the Katoni or Jugi or Nath class only. Assam Valley may be called the original home of muga and eri, while pat may have found its way into the valley along with the Katonis or it may be that the ancient rulers of Assam introduced the species.

The industry is carried on largely in the Assam Valley and to a small extent in the Surma Valley. It is a subsidiary industry.

2. The Marwaris are the main dealers and exercise some influence over the industry in respect of finance and marketing. It is not organised.

3. As the industry is not organised, figures for cocoons and raw silk and their money value are not available.

4. *Vide* paragraph 2, answer 8 to first series of questionnaire. Regarding mulberry silk, a white variety of Japanese bivoltine tried in the Government silk farms and introduced in the province, has yielded about 3 times more silk than the indigenous univoltine and multivoltine varieties. A yellow French univoltine variety has yielded 4 times more silk.

There is no filature in the province and the information on inadequate supply of mulberry cocoons is wanting.

5. Muga, eri and pat silk-worms. For muga and eri, *vide* answer 4 to first series of questionnaire.

Pat seed cocoons are kept spread over a round or rectangular bamboo tray. When the moths emerge and mate, they are removed to a piece of old cloth spread over a tray for oviposition. As the eggs hatch, the tiny worms are removed to tray or trays with the help of tender and entire mulberry leaves spread over the layings. The worms thus collected are served 3 or 4 times a day with tender leaves till they pass the 1st moult. Delitage is made by spreading leaves over the worms and transferring them to another tray. The big worms left on the litter are often transferred with hand. When the worms mature after the 4th moult, they are picked with hand and put in chandrakis or spinning trays. On the 4th or 5th day, the cocoons are taken out of the spinning trays.

The isolation of moths for oviposition with a view to selection and elimination under microscope, the disinfection of eggs appliances and rearing house delitage with threadnuts, regular feeding and spacing, chopped leaves to tender worms and entire leaves to developed worms and visual selection

of seed cocoons are done in the Government farms only. They are not practised by the village rearers.

6. (a) The Government farms have rearing houses and seed cutting houses. The roofs of the houses are of thatching grass in the plains and of corrugated iron sheets in the Khasi hills. The walls are made of reeds mud-plastered and white-washed. The houses have ceilings. The walls have wooden windows with fixed frame of fine meshed wire-net for light ventilation and protection against flies. The rearing house has two rooms, one for storage of leaves and other for raising worms. Each room has fly-proof wire-net door. The floor is katcha (of earth) and the plinth is of brick or stone. The rearing room finds one or two thermometers on its walls. There are stands and trays of bamboos; also thread-nets.

The seed-cutting house is provided with wooden doors and ventilators. For disinfection of rearing appliances, there is a basin by its side. All cocoons are stored in the seed-cutting house for emergence of moths and laying of eggs.

The cost of a rearing house, 28 ft. x 14 ft. x 10 ft. is about Rs. 400 (thatched roof) and Rs. 1,000 (corrugated iron roof). The thatched roof requires renewal almost every three years.

The village rearers have no separate rearing house. They have a portion of their dwelling house for rearing purpose. The sericultural department has been introducing separate rearing house of thatched roof, mud-plastered and white-washed reed-walls and katcha plinth furnished with fly-proof wire-netted doors and windows. The cost of such a house about 16 ft. x 10 ft. with bamboo posts, is about Rs. 45.

In view of the economic conditions of the industry, any better method of construction and equipment may be prohibitive.

(b)

Race.	Number of days.	Number of cocoons to a lb.	Length of filament-Denier.
Muga	24 to 45	600 (dried)	Not available.
Eri	24 to 45	1,000 (empty)	
Pat (indigenous) . . .	24 to 45	1,300 (green)	

7. The method of rearing mulberry silk-worms in the Government farms does not differ from that followed in Government and well equipped private institutions in France, except in the appliances for cocooning. They place twigged shrubs upright on the trays and we pick up mature worms and put them on spinning trays.

8. There is no separate organisation of selected seed production. Government farms eliminate diseased layings of muga, eri and pat with the help of microscope. Government import seeds occasionally from France and Japan.

9. Muga and eri are multivoltine. There is an indigenous univoltine and a multivoltine pat silk-worms. *Vide* answer 5 to first series of questionnaire.

10 & 11. *Vide* paragraphs 1 and 3 to answer 4 and paragraph 7 (b) in the first series of questionnaire.

12. The provincial sericulture department is trying a combined system of bush and tree mulberry to raise more than three broods a year.

13. The methods followed and the care taken in the Government farms lead to complete success in case of eri and pat silk-worms. With the village rearers, the mortality of worms is very high due to unsuitable leaves served, overcrowding, insufficient feeding and want of timely delitage. Bad weather conditions, continuous rains or long drought and use of leave in very old trees, adversely affect muga crops which have to be reared outside.

14. Flacherie, Pebrine, Muscardine and Grassvice are the diseases. There is also fly pest which damages to some extent. Against Flacherie and Pebrine elimination with microscope after Pasteur is done and proper methods of rearing are followed. Against flies, wire-netted doors and windows are provided in the rearing house. The main causes of flacherie are unsuitable leaves, wet and dirty leaves, overcrowding of worms in trays, quick variations of temperature in the rearing room, want of cleanliness in trays and bad ventilation, etc. Disinfectants, such as copper sulphate, formaline and sulphur are used as preventive measures against the diseases.

15. I do agree that climate plays the most important rôle in the development of sericulture and I venture to state that the conditions in Assam are very favourable for sericulture.

16. The average yield per 100 layings is 5,000 cocoons for muga, 12,000 for eri and 16,000 for pat.

17. No statistics on the points are available.

18. *Vide* last paragraph to answer 6, answer 7 (a) and 1st paragraph of answer 8 of the first series of questionnaire.

19. *Vide* answer 6, 1st paragraph, and answer 8. Muga and eri cocoons are sometimes kept for a few weeks with the hope of better price.

20-22. All yarns (yarn is used throughout to mean raw silk) of muga and pat are produced with "Hir or Bhanguri" and of eri with "Taku". The appliances are worked with hand.

A Hir consists of an inch thick wooden rod about 20 inches long to which is fitted a wooden disc cut into four segments, each 9 inches long. The two ends of the rod are supported by two notched pegs driven into ground. One man feeds the Hir with filament and the another gives twist to the filament and motion to the rod which winds the yarn the disc functioning as the fly-wheel. The yarn is re-wound into a Natak and dried. One-fourth of a seer of yarn can be reeled in a day of 8 hours.

Taku consists of a polished piece of split bamboo, about the length and thickness of a pen holder to which is fixed a circular piece of thin but heavy wood almost double the diameter of a rupee. The upper end of the "taku" is shaped into a hook. The yarn is pulled out from the boiled eri cocoons, twisted with hand and fastened just above the circular piece of wood. It is spiralled on to the hook which it encircles. The worker pulls out more filaments gives a rotating motion to the Taku which twists the yarn, disjoins the yarn from the hook and winds as before just above the wooden piece. Eri yarn are not spun for long hours and no definite figures of yield per day can be given. About 12 to 15 yards of yarn are spun in an hour. The appliances last for several years when used carefully. Improved reeling appliances costing about Rs. 15 each are being introduced in a few demonstration centres. The appliances described above are made by the villagers themselves at a very small cost.

Figures for the last five years are not available.

23. *Vide* (d) in answer 7 to the first series of questionnaire. Statistics are not available.

24 & 25. There are no filatures in Assam.

26. It is difficult to venture an opinion without a filature here.

27. I practised reeling in a small filature in Languedoc, in France in 1907. I had no opportunity to be in touch with any Indian filature. The

size of a filature giving big or small profit, depends on the supply of cocoons and the ability to lay out capital.

28. In Assam, the rearers are often the reelers and spinners as well as weavers. Figures are not available.

30. (iii) (a), (b), (c) The Government of Assam have organised demonstrations in a small scale in a few selected villages to teach people improved methods of rearing, reeling and general efficiency in the industry.

37. Muga yarn is used in embroidery work and borders of sarees. The general use of eri is in the form of chaddars (wrappers) and of muga and pat in sarees, coats and blouses, etc.

38. Not known.

39. *Vide* answers 10 and 11 to the first series of questionnaire.

42. Not well known. A conditioning house, after the western method may be useful.

45. Raw silk from Japan and China, spun and twisted silks from Italy are generally found to be used by the handloom weavers.

46. *Vide* paragraph 1, answer 4 (a) to the first series of questionnaire.

47. No comparative studies have been made. The users of imported silks find it less tenacious than the indigenous silk. The imported silks have greater lustre.

48. The exchange seems to be responsible to some extent for the influx of foreign silk.

50. No definite information is available.

51 & 52. To artificial silk, import of cheap multivoltine silk and spun silk, defective reeling in India, difficulty of introducing new varieties of silk-worms and improved methods of rearing among the uneducated mass of rearers, crop failures, competition from without and insufficient supply of disease-free and robust seeds.

53. The temporary or the permanent character of the decline seems to depend on the industry being made profitable or otherwise.

54. Artificial silk appears to have replaced to a great extent the utilisation of waste silks and cocoons and low grade of raw silk.

55. The present method of levying *ad valorem* duties on raw silk does not appear to be satisfactory, as compared to the rates on silk fabrics to protect the silk industry. The remedy apparently lies in enhancing the existing tariff rates on raw silks and yarns.

56. (A) & (B) Yes.

(C) It is hoped that the impetus received from such protection sufficient to stabilise the industry will enable it to face world competition in the future.

57. (a) & (b) Substantial enhancement of the present. Tariff rates on raw silk and yarns will, it is expected, improve the condition of the industry.

(c) The enhanced rate may remain in force for not less than 10 years and the position can be reconsidered after that period.

58. (a) A rise in price of silk yarn will induce growers to produce more cocoons, enable them to go in for costlier and better methods and appliances.

(b) The handloom industry is expected to thrive.

The manufacturers of chemicals, dyes, appliances and accessories for handloom and sericulture are expected to profit by the development of silk industry.

60. To reduce the cost of production, it seems necessary to introduce strains of silk-worms giving more silk content, to improve reeling cultivation of food-plants, and rearing methods and to supply sufficient quantity of disease-free and robust seeds. It is difficult to give the figures required.

Government of Bengal.

Letter No. 1311, dated the 10th March, 1933.

I am directed to refer to your letter No. 9, dated the 3rd January, 1933, forwarding a copy of the questionnaire issued by the Tariff Board in connection with its enquiry into the Sericultural industry.

2. In reply, I am to say that some parts of the questionnaire were already dealt with in my letters No. 393, dated the 31st January, 1933, and No. 1069, dated the 28th February, 1933. I am now to enclose herewith replies as far as possible to some other questions which are of interest to the Government of Bengal in the Ministry of Agriculture.

Enclosure.

4. (a) Japanese (white) univoltines reared in Bengal gave 2·8 grains and Chinese (yellow) 2·3 grains of silky substance per cocoon.

The Barapolu (Bengal Univoltine) gives 2 grains of silky substance per cocoon. The Nistaris and Chotopolus give 1·25 to 1·75 grains of silky substance per cocoon in different crops and in different tracts. French univoltines reared in Bengal gave about 4 grains of silky substance per cocoon.

In the exotic varieties reared here, the death rate in the larval stage is rather high.

(b) Want of an adequate supply of cocoons is attributed as one of the causes for closing of some filatures in Bengal.

6. (a) The rearing houses in Government nurseries are made of mud-wall and thatched roof with wire-netted doors, windows and ventilators. The cost of these buildings vary from Rs. 400 to Rs. 2,000 according to size and equipment. Provision of removable light ceilings (e.g., Celotex Boards) will improve conditions.

7. There is not much difference in rearing methods excepting in details. For instance, in this country leaves are not usually plucked excepting for feeding during the 1st age whilst in other periods stems with leaves are spread on the rearing trays. Instead of distributing leaves 5 or 6 times in a day, the rearers usually give three feeds in 24 hours.

12. Extension of tree mulberry to replace bush mulberry is being popularised both in view of lesser cost of cultivation and also better quality of leaves.

13. The estimation of average percentage is not possible.

15. For development of sericulture in any locality, climate is no doubt an important factor governed largely by temperature and humidity. But too much stress should not be laid on 75° to 80° F. temperature and 50 to 70 per cent. humidity. In practice, such conditions are not available and the silk-worms thrive quite well during October to April in the silk districts in Bengal with the room temperature varying from 100 F. (Maximum) to 54 F. (Minimum) with humidity ranging from 44 per cent. (Minimum) to 100 per cent. The worst months at Berhampore (Murshidabad) in 1932 were July and September. The monthly variation of temperature and humidity noted at Berhampore Nursery (Murshidabad) Amriti Nursery (Malda), and Tollygunge Nursery (Calcutta), are enclosed herewith for consideration.

20. Practically all the silk is reeled in Bengal by hand on charka called—“Ghai”, except an Italian basin running at the Government Silk Weaving Institute, Berhampore, and two Mysore units each of 5 domestic basins at the Government Silk Weaving Institute and the Piasbari Sericultural Nursery.

The following table gives the details of the processes and machinery:—

	(1) Hand reeling on single charka.	(2) Reeling on Italian basin.	(3) Reeling on Mysore basin.	REMARKS.
(a) Cocoon Cook- ing basin and working basin.	Both are com- bined.	The two opera- tions are separate.	Same as (2) .	More efficient heating and con- trol of tempera- ture obtained in (2) and (3).
(b) Intake of Co- coon filaments.	Through fixed eyes.	Through re- volving discs, called Jet Beams.	Same as in (2)	Impurities and loose ends separated.
(c) Drive of wind- ing wheel.	Hand driven .	Power driven .	Hand driven 5 at a time by one per- son.	With hand drive, but there is a tendency to reel too fast.
(d) Quality of silk	Dirty .	Clean and even	Clean and even	Practically no change of water in (1).
(e) Uniformity .	Absent as supervision is impossible.	Uniform under supervision.	Uniform under supervision.	
(f) Number of intake heads.	Two only .	4	6	

In some places steam is used from a boiler more efficiently with the single charka.

23. (b) The total cost for all the items (i) to (ix) mentioned is about:—

As. 12 per lb. for process (2) or 3 } as detailed under answer to
Re. 1 per lb. for process (1) } Questionnaire No. 20.

When steam from a boiler is used with the single charka method the cost comes to Re. 1-10 per lb.

26. About 10 to 12 reelers working on as many basins under one Supervisor. No estimate can be given.

30. (i) As. 6 to As. 8 per day in all three cases.

(ii) The industry is hampered more for want of proper machinery, organisation and supervision than from inefficiency of Indian labour.

(iii) (a) Facilities are now open for training in up-to-date reeling plants at the Government Silk Weaving Institute, Berhampore and at Piasbari, although boys learn the indigenous method as a hereditary occupation of many village reelers.

(b) Rearers are also trained at Piasbari Nursery.

32. For a reeling plant—

(i) Rs. 600 } for a reeling plant employing 10 to 12 Reelers on one
(ii) Rs. 1,000 } 5-basin Mysore pattern.

37. Raw silk is used mostly in the untwisted (or twisted only once or twice per inch) state for weaving silk cloth.

39. The usual method of marketing is through Marwari merchants, who advance money, whenever there is a demand. Sometimes some enterprising local merchant takes the silk for sale in different centres in India.

41. Prices paid by a firm at Calcutta for the last 5 years are as follows:—

1927—at Rs. 14-12 per lb.

1928—at Rs. 13-7 per lb.

1929—at Rs. 12-8 per lb.

1930—at Rs. 11-10 per lb.

1931—at Rs. 8-8 per lb.

No information regarding prices in distant markets is available.

42. The sorting and grading of silk (conditioning) is not done in Bengal.

50. No attempt has been made in Bengal.

51. So far as reeling is concerned, the decline is due to want of proper reeling plants, lack of supervision and dearth of enterprising organisation for marketing.

53. So far as reeling is concerned, the decline will be of a permanent nature unless proper attention is paid to points mentioned under Questionnaire No. 51.

Statement showing the monthly variation of temperature and humidity at Berhampore, Amriti and Tollygunge Nurseries (vide reply to question No. 15).

Name of Month.	Maximum Temperature.	Minimum temperature.	Maximum humidity.	Minimum humidity.	Rain-fall in each month.	Number of rainy days in each month.
Recorded in Rearing Room at Berhampore Central Nursery (Murshidabad).						
1932.						
January	74	61	90	70	nil	nil
February	74	64	90	64	0·81	2
March	84	71	80	60	nil	nil
April	90	71	90	51	nil	nil
May	92	76	96	56	2·12	6
June	92	80	96	80	6·46	11
July	88	80	100	87	15·23	17
August	91	80	96	66	4·38	19
September	88	81	96	72	9·17	14
October	92	68	95	36	1·20	2
November	83	58	95	46	5·46	3
December	75	54	80	44	nil	nil

Statement showing the monthly variation of temperature and humidity at Berhampore, Amriti and Tollygunge Nurseries (vide reply to question No. 15)—contd.

Name of Month.	Maximum Temperature.	Minimum temperature.	Maximum humidity.	Minimum humidity.	Rain fall in each month.	Number of rainy days in each month.
Recorded in Meteorological laboratory at Berhampore (Murshidabad) (Atmospheric temperature).						
1932.						
January	86	50	91	67	<i>nil</i>	<i>nil</i>
February	91	48	97	49	0·95	5
March	103	59	86	32	0·07	2
April	109	66	85	34	0·79	3
May	111	70	97	53	6·98	6
June	104	75	95	67	4·72	11
July	95	75	98	79	9·60	24
August	97	75	98	76	18·87	23
September	97	77	96	76	5·66	12
October	99	63	98	61	0·99	4
November	90	53	100	67	2·92	7
December	86	47	97	76	<i>nil</i>	<i>nil</i>
Recorded in Rearing Room at Amriti Sericultural Nursery (Malda).						
1932.						
January	76	58	100	65	<i>nil</i>	<i>nil</i>
February	80	60	100	50	0·17	2
March	100	66	90	40	<i>nil</i>	<i>nil</i>
April	105	75	95	20	1·20	2
May	103	78	100	20	4·17	4
June	96	78	100	75	6·28	9
July	91	81	100	60	7·16	15
August	92	81	100	65	6·73	16
September	92	82	100	65	8·55	18
October	91	75	100	70	8·40	4
November	83	72	100	65	3·46	4
December	76	63	95	60	<i>nil</i>	<i>nil</i>
Recorded in Rearing Room at Tollygunge Sericultural Nursery (Calcutta).						
1932.						
January	86·3	51·4	97	31	<i>nil</i>	<i>nil</i>
February	91·0	53·1	98	17	0·25	1
March	100·4	63·1	97	22	0·69	1
April	105·3	71·5	97	16	1·07	4
May	103·0	69·9	97	33	11·74	7
June	97·8	75·0	97	61	7·44	11
July	93·0	75·1	99	72	9·88	19
August	92·9	77·1	100	73	8·83	18
September	92·9	75·5	98	67	10·33	18
October	94·1	68·1	98	44	3·79	7
November	87·2	58·4	98	37	8·88	6
December	82·8	55·3	98	38	<i>nil</i>	<i>nil</i>

Government of Bombay.

(1) *Letter No. 9483-D., dated the 20th February, 1933.*

Subject:—ENQUIRY INTO THE SERICULTURAL INDUSTRY.

I am directed by the Government of Bombay (Transferred Departments) to refer to your letter * * * * * No. 51, dated the 20th January, 1933, on the subject of the enquiry by the Tariff Board into the sericultural industry and to forward herewith for the information of the Board copies of the letters from the Director of Industries, Nos. I. A. 66-903, I. A. 66-904 and I. A. 66-905, dated the 16th February, 1933, from the Director of Industries, Bombay Presidency, together with four copies of each of their accompaniments supplying information with reference to those questions which affect the handloom weaving industry in the Bombay Presidency.

2. The Government of Bombay prefer to defer their opinion on general questions until the Report of the Board is before them. They will be prepared, however, to formulate and communicate to the Board their views in respect of any particular point or points which may arise in the course of the enquiry and on which the Board may specially desire to have the views of the local Government to assist them in their investigation.

Enclosure.

No. I. A. 66-905
Office of the Director of Industries,
Old Custom House,
Bombay, 16th February, 1933.

From

P. B. Advani, Esq., M.Sc.Tech., M.I.E., J.P.,
Director of Industries, Bombay,

To

The Secretary to Government,
General Department, Bombay.

Subject:—SERICULTURE INDUSTRY—ENQUIRY INTO—BY TARIFF BOARD.

Reference:—General Department Memorandum No. 9483-D., dated the 23rd January, 1933.

Sir,

In continuation of this office Nos. I. A. 66-903 and I. A. 66-904, dated the 16th February, 1933 respectively, I have the honour to forward herewith four copies of my replies to the Questionnaire issued by the Tariff Board with their letter No. 51, dated the 20th January, 1933, addressed to Government in the General Department. In this connection it may please be noted that only one copy contains samples of cloth and three copies are without them—*vide* pages 6 to 9. It is suggested that all the four copies, if necessary may be furnished to the Tariff Board as this office copy can be made available to Government if and when required.

1. (i) 10,000.
- (ii) 45,000.
- (iii) 32,450.

2. Raw materials like silk yarn, raw silk, etc., are obtained from the following places through merchants:—

Raw silk.—Kashmere, Bengal, Mysore, China and Japan.

Silk yarn.—Spun silk yarn from China and Japan.

Artificial silk yarn.—England, France, Italy, Germany and Japan.

Gold thread.—France, Germany, Surat, Benares, Yeola, Ahmedabad and Poona.

Both Indian and imported raw materials are used and their prices are as follows:—

Raw silk—

Bengal—Rs. 5-8 per lb.

Kashmere—Rs. 6 per lb.

Mysore—Rs. 6 per lb.

China—4-8 per lb.

Japan—Rs. 4-12 per lb.

Spun silk foreign—

230/2—Rs. 5-8 per lb.

210/2—Rs. 5-4 per lb.

160/2—Rs. 4-4 per lb.

140/2—Rs. 3-14 per lb.

60/2—Rs. 3-8 per lb.

Rates of artificial silk yarn—

Deniers 150—Re. 1-1 per lb.

Deniers 160—Re. 1 per lb.

Deniers 180—Re. 1 per lb.

Deniers 200—As. 15-9 per lb.

Deniers 250—As. 15-6 per lb.

Deniers 300—As. 14-6 per lb.

Deniers 450—As. 14 per lb.

The price of gold thread varies from As. 14 to Rs. 1-8 per tola according to quality.

3. (i) Twisting and winding are done by a separate agency.

(ii) Boiling off is done by the weaver himself.

(iii) Dyeing is done by the weaver himself.

(iv) Doubling is done by a separate agency and preparing the warp is done by the weaver himself.

The following are the rates in one centre per lb. of silk yarn:—

Boiling of silk—As. 2.

Winding of silk—As. 8.

Twisting of silk—As. 8 to As. 12.

Doubling of silk—As. 8 to As. 12.

Preparing.

Warp of silk—As. 12.

Dyeing of silk—As. 12 to Re. 1.

4. *In Poona*.—For warp, China—Kine Sivan & Manchuo and Jangipur doubled silk and waste silk yarn of different counts, and for woof, China, Calcutta, waste silk yarn, and art silk are used. Art silk is also used as warp together with waste silk or mercerised cotton for producing artistic effects.

Northern Division.—Silk merchants of Surat and Ahmedabad who are Bombay importers' agents supply silk to weavers. In centres like Chikhli, Broach, Bulsar, Dholka, silk is sold to weavers through retailers. There are no brokers.

13. The quality of Indian silk compares well with that of imported silk. Indian silk is costlier by Re. 1 to Rs. 2 per lb. Therefore imported silk is preferred owing to cheap prices.

The merchants say that imported silk is re-reeled and the thread is even; while the Indian silk is only once reeled on a charka and thus there are breakages of thread while doubling silk yarn.

Indian silk is superior in lustre and evenness of the diameter of the thread, while the strength of the thread of Indian silk is less than that of the China silk.

14. In the various divisions the system is as under:—

Central Division.—The system of supplying silk to weavers and taking back the cloth from them which was in vogue for some years has been discontinued owing to slack season or trade depression.

Sind and Southern Division.—Silk is supplied to the weavers and cloth is taken back from them. No special conditions are imposed. Weavers receive fixed wages.

Northern Division.—The system of supplying silk to weavers and taking back the cloth from them is confined to Surat, Ahmedabad and Dholka, where the weavers are paid on daily wages. At other centres this system is discontinued owing to trade depression.

In some centres there are two systems in vogue for supplying the raw materials to weavers, one is of contract and the other is conditional. In the contract system, the period is of three months, within which the rates at which the raw materials to be given to the weaver and the rates at which the finished articles of definite specification are to be received from the weaver are fixed. In the conditional system, the weaver is bound to purchase raw materials from the purchaser of the finished goods and is bound to present first the finished article to the merchant from whom raw materials have been purchased and if the price offered by him be not acceptable to the weaver, the weaver is at liberty to sell his produce wherever he will get more price but is bound to credit some of the amount to his loan account as soon as the goods are sold.

15. The introduction of artificial silk has affected the market for real silk very considerably, perhaps by as much as 50 per cent.

In Guledgud and Hubli Khans, in which three-fourths of real silk was being used. Instead of that, the art silk is being used now.

In producing artistic designs in borders of sarees in the body and Palvas of the same, art silk is being used instead of real silk.

In order to increase the lustre of cloth, real silk was used as weft, now the art silk has occupied its place.

16. The details required are given below:—

(1) *Paithani (Poona)*—

	Rs. A.
1. Raw material—silk and gold thread . . .	30 8
2. Twisting and winding charges . . .	4 8
3. Boiling and dyeing charges . . .	2 8
4. Weaving charges . . .	8 6
5. Cost of labour (warping, gaiting, pirn winding) . . .	3 0
6. Other charges . . .	1 0
Total . . .	<u>49 8</u>

SAMPLE.

	Rs. A.
(2) <i>Pitambar (Yeola)</i> —	
1. Raw material—silk	6 0
2. Twisting and winding charges	1 0
3. Dyeing charges	1 0
4. Weaving charges	2 0
5. Cost of labour	2 8
6. Other charges	0 8
Total	13 0

SAMPLE.

(3) <i>Kad (Poona)</i> —	
1. Raw material	10 8
2. Twisting and winding charges	1 0
3. Dyeing charges	0 12
4. Weaving charges	1 8
5. Cost of labour	2 8
6. Other charges	0 4
Total	16 8

SAMPLE.

(4) <i>Plain silk pheta (Yeola)</i> —	
1. Raw material	4 8
2. Twisting and winding charges	1 8
3. Dyeing charges	0 8
4. Weaving charges	1 8
5. Cost of labour	2 0
6. Other charges	0 2
Total	10 2

SAMPLE.

(5) <i>Silk Khan (Poona)</i> —	
1. Raw material	5 0
2. Twisting and winding charges	2 4
3. Dyeing charges	1 0
4. Weaving charges	4 0
5. Cost of labour	2 4
6. Other charges	0 4
Total	14 12

SAMPLE.

	Rs. A.
(6) <i>Kinkhab</i> , 5 yds. × 27" (<i>Surat</i>)—	
1. Raw material	75 0
2. Twisting and winding charges	8 0
3. Dyeing charges	2 0
4. Weaving wages	30 0
5. Cost of labour	10 0
6. Other charges	5 0
Total	130 0

SAMPLE.

(7) <i>Silk sari</i> , 5 yds. × 50" (<i>Surat</i>)—	
1. Raw material	18 0
2. Twisting and winding charges	2 0
3. Dyeing charges	1 0
4. Weaving charges	5 0
5. Cost of labour	2 8
6. Other charges	1 8
Total	30 0

SAMPLE.

(8) <i>Silk Khan</i> , 5 yds. × 36" (<i>Ahmedabad</i>)—	
1. Raw material	10 0
2. Twisting and winding charges	1 8
3. Dyeing charges	1 0
4. Weaving charges	4 0
5. Cost of labour	1 8
6. Other charges	1 0
Total	19 0

SAMPLE.

(9) <i>Silk coating</i> , 20 yds. × 28" (<i>Surat</i>)—	
1. Raw material	20 0
2. Twisting and winding charges	2 0
3. Dyeing charges . . . . .	...
4. Weaving charges	5 0
5. Cost of labour	2 0
6. Other charges	1 0
Total	30 0

SAMPLE.

	Rs. A.
(10) <i>Silk shirting, 20 yds. × 28" (Surat)</i> —	
1. Raw material	12 0
2. Twisting and winding charges	1 8
3. Dyeing charges	1 0
4. Weaving charges	5 0
5. Cost of labour	2 0
6. Other charges	1 0
Total	<u>22 8</u>

SAMPLE.

(11) <i>Muga sari, 9 yds. × 50" (Surat)</i> —	
1. Raw material	8 0
2. Twisting and winding charges	1 0
3. Dyeing charges	1 0
4. Weaving charges	2 0
5. Cost of labour	1 8
6. Other charges	0 8
Total	<u>14 0</u>

SAMPLE.

(12) <i>Silk lungi (Surat)</i> —	
1. Raw material	1 8
2. Twisting and winding charges	0 6
3. Dyeing charges	0 6
4. Weaving charges	1 0
5. Cost of labour	0 10
6. Other charges	0 2
Total	<u>4 0</u>

The weavers are paid on daily wages. Some weavers are paid on piece-work for cloth like Paithani, Shalu, Shela, Pitambar, etc.

Daily wages vary from Re. 1 to Rs. 2 according to the kind of cloth woven. Piece-work wages are shown under weaving charges above.

17. The policy as adopted in the hand weavers' co-operative societies in this Presidency is of four stages, which are as shown below:—

- I. In the first instance, an ordinary cash society is started. With the advance obtained from such society, the weaver member is at liberty to buy his yarn from any shop that suits him.
- II. As soon as a little experience is gained, the direct wholesale purchase of yarn is undertaken by the society. The yarn is sold at cash or credit of three months to members.
- III. When it is found that the society has got sufficient funds, manufactured cloth of members is accepted in the off season, when Sawkars buy it at a low price from weavers, and loans in the form of yarn and cash enough to keep the weavers employed

are advanced to members on the security of the cloth in the possession of the society.

IV. The last stage is the opening of regular shop in Bazar at which the members' cloth is sold to the public.

At the end of March, 1931, there were 52 weavers' co-operative societies, with a total membership of 2,285 and working capital of Rs. 2,67,708. The total sales of raw materials have been to the extent of Rs. 1,99,940, with a total profit of Rs. 3,486. Advances are given against finished produce and during the year 1930-31, nine societies had advanced against goods to the extent of about Rs. 60,000. Twenty-five societies had done the business of purchasing and selling the yarn.

18. Goods produced in different divisions are sold as under:—

Central Division.—The goods prepared by the weavers are locally sold. These are purchased by merchants and sent to different towns in India. The articles are also sent to Goa, Siam, Singapore, Africa, Burma, Ceylon, Afghanistan, and Europe, i.e., England, Germany, etc., and America. The weaver has not to undergo or incur freight charges, etc., in sending his goods.

Sind.—The finished material is sold locally but is also sent to Sukkur, Shikarpur and Quetta side. The weaver has not to incur any charges of transportation, etc. He gets yarn from the merchants and receives his wages. He does not bother himself about anything else.

Southern Division.—Some of the manufactured goods are consumed locally. Some are sent to outside markets such as Nasik, Khandesh, Nagpur, Aurangabad, etc. The charges of freight, etc., are borne by the weavers if the goods are sent on their own responsibility for sale but if they are ordered the buyer usually pays the transit charges.

Northern Division.—The goods prepared by the weavers are sold by merchants to different merchants in important centres in India. The articles are also sent to Goa, Siam, Singapore, Africa, Burma, Ceylon, Afghanistan, Baluchistan, Bhutan, England, Germany, America, etc. The weaver has not to incur any expenses as regards freight, etc., in sending his goods.

19. The demand for natural silk is decreasing owing to good demand for artificial silk.

20. The present sources of supply of raw silk are from Kashmere, Bengal, Mysore, China, Japan and Italy.

As regards approximate amount of raw silk consumed in various centres, exact information is not available. But for approximate figures in the Bombay Presidency reference is invited to Statement I sent under cover of this office letter addressed to the Secretary to Government, General Department, Bombay, in reply to Tariff Board letter No. 557, dated the 5th December, 1932.

(2) Letter No. I. A. 66-1472, dated the 13th March, 1933, from the Director of Industries, Bombay.

Subject:—SERICULTURE INDUSTRY—ENQUIRY INTO—.

In reference to some points raised by the Board in the course of my evidence before them on 6th instant on the subject cited above, I have the honour to state as under:—

2. A sample piece of Kinkhab made at Surat from Artificial silk is sent herewith for the inspection of the Board as desired.

3. A copy of the Bombay Weights and Measures Act, 1932 (Bombay Act No. XV of 1932), is forwarded herewith on loan for the perusal of the Board as required which may please be returned when done with.

4. During the course of my evidence, with reference to the statement of cloth (Statement III), a point was raised regarding the cloths produced at Surat and Ahmedabad in 1932-33, as to how the same price was shown in the column of silk used for certain cloths when the quantity of silk used differed substantially. The reason for the apparent difference is due to the fact that the silk used in various cloths is not of a uniform grade throughout though the denier be the same. It generally depends on the type of cloth for which the particular silk is used; for example Silk Khan shown under the Surat centre in the statement requires three to four-fold twisted silk yarn as warp weighing 12 ozs. costing Rs. 10 which of course includes cost of labour. While in the same centre cloth like Silk Satin is manufactured from single or at the most two-fold twisted silk yarn as warp weighing 1 lb. 8 ozs. costing Rs. 10 in this case also, including cost of labour, etc. Similarly in the case of Ahmedabad in the same statement, for example, the weight of silk yarn used for coating cloth is given to be 5 lbs. costing Rs. 25 inclusive of cost of labour, etc., whereas the silk Pitamber (Dhoti worn on religious occasions) in the same centre produced from 1 lb. of the same kind of silk is shown to cost Rs. 20. The difference in this case is due to the silk in the coating cloth being grey and cost of labour being low and in the latter case, *viz.*, of Pitamber the silk is dyed and the cost of labour is high. Hence the prices shown for silk including cost of labour, etc., are likely to show such marked difference.

5. The method employed in the counting of cotton yarn, spun silk, artificial silk and raw silk is given below:—

I. *Cotton and spun silk.*—A “Hank” in cotton trade means a definite length of 840 yards.

Now as many Hanks or (such 840 yards) there are in 1 lb. denotes the count of the cotton yarn. Thus No. 10s cotton yarn means this particular cotton yarn will have a length of $(840 \times 10) = 8,400$ yards in 1 lb.

Therefore finer the counts of cotton yarn greater will be the length (yards) in 1 lb.

II. *Artificial silk.*—A “Hank” in Artificial silk trade means a definite length of 520 yards.

The system of numbering is such that the weight in deniers (an Italian weight) of this length of yarn (*i.e.*, 520 yards) constitutes the count of Artificial silk.

The English weight of an Italian denier = .001,875 oz.

or $533\frac{1}{4}$ deniers = 1 oz.

or $8533\frac{1}{4}$ deniers = 1 lb.

Therefore coarser the yarn, higher or greater will be the count number.

III. *Raw silk.*—For raw silk different systems are in use:—

(a) *Denier system* (same as for Artificial silk).—A Hank = 520 yards.

The weight in deniers (an Italian weight of this length, *i.e.*, 520 yards) constitutes the count.

(b) *Dram system.*—The Hank is 1,000 yards. The number of drams that such a Hank weighs is the count of the yarn.

(c) *Unce system.*—The “Hank” is 1,000 yards. The number of Hanks weighing 1 oz. is the count. Thus if 30 Hanks (*i.e.*, $30 \times 1,000 = 30,000$ yards weigh 1 oz. the count is 30s. Sometimes two-fold yarns are used, in which case the length of the silk is only half of that stated for the denier. For instance

$$170/2 \text{ is only } \frac{26,262}{2} = 13,131 \text{ yards per lb.}$$

6. Information on the remaining points will be sent in due course.

(3) Letter No. I. A. 66/2774, dated the 4th May, 1933, from the Director of Industries, Bombay.

Subject:—SERICULTURE INDUSTRY—ENQUIRY INTO—.

In the course of my oral evidence in connection with the subject cited above some fresh points were raised by the Board. Information on some of these was supplied by me in my letter No. I. A. 66/1479, dated the 13th March, 1933. I give below further information on the remaining points.

As regards the question as to the approximate value of goods produced at the various centres mentioned in Statement III to my reply to the questionnaire No. 1 necessary information is furnished as under:—

Centre.	Approx. value of Silk goods per year.	Approx. value of mixed silk goods per year.
	Rs.	Rs.
Bombay	6,000	9,000
Nasik	5,000	20,000
Yeola	15,00,000	10,00,000
Poona	6,00,000	4,00,000
Ilkal	1,20,000	10,80,000
Hubli	1,20,000	11,40,000
Dharwar	Nil	96,000
Belgaum	40,000	3,60,000
Surat	20,00,000	10,00,000
Ahmedabad	3,00,000	1,00,000

The Board also desired to know the general opinion regarding the Kashmere, Mysore and Bengal Silk from the view point of quality and price. In this connection I may state that generally these three types of silk are given preference in the following order, viz., Kashmere, Mysore and Bangalore. The Kashmere silk tops in the point of superiority. It is available in two varieties, viz., white and yellow and possesses evenness, smooth feel and accurate length. Gold thread manufacturers of Surat use this silk largely for their work. The approximate prices are as shown below:—

Lotus Brand Rs. 7-4 per lb.

Iris Brand Rs. 6-14 per lb.

Tulip Brand Rs. 6-14 per lb.

Saffron Brand Rs. 6-8 per lb.

Mysore silk comes next in the order of preference. Generally it is of light greenish white. It is not as smooth and strong enough as the Kashmere silk. Rates per lb. of this silk are Rs. 7-12 to Rs. 8 for finer quality and Rs. 6-8 for medium quality.

Bengal silk comes last in the order of preference. It is obtained from Malda and Jangipore. It is available thrice in a year according to the cocoon crop seasons. The December production is reported to be good especially for dyeing purposes. The production of April season is of still better and finer quality; that of the monsoon season is of an inferior grade and consequently less in price by As. 8 to As. 10 per lb. than the former two types. The distinguishing feature of this silk, however, is its bright

yellow colour and soft and spunny nature. The price per lb. is Rs. 6-4 for finer quality, Rs. 6 for medium and Rs. 5 to Rs. 5-8 for the inferior quality.

As regards the corresponding customs trade names for the Kath and other silks mentioned by me in my reply to question No. 42 of your questionnaire No. 2, I give the same below:—

Name of the raw China silk in vogue.	Customs Trade Name.
Kath	{ Yellow other kinds. White other kinds.
Siam	Siam.
Steam	White other kinds (from Canton).
Laying	Laying-white Shanghai.
Manchow	Yellow other kinds.
Panjam	{
Can-pas	} 1st Chop, Can-pass, So So.

The merchants dealing in Bhangargundi and other types of Bengal silk are as under:—

Channappa Parshuramappa Edke, Bagalkot, District Bijapur.

Gangadharappa Bhimappa Divte, Hubli, District Dharwar.

Ganosa Nagosa Shalgar, Shahpur, District Belgaum.

Narayanaha Khoday, Gadag, District Dharwar.

As regards growing of the Mulberry tree in the Presidency I have to inform you as under:—

Within the forests of this Presidency including Sind the Mulberry does not occur naturally. Experiments were started 2 years ago and are in progress, to introduce the tree in Hyderabad, Sind. The results obtained so far are satisfactory, but not such as to justify the expression of a definite opinion that successful plantations can be formed.

Outside forest limits it is not known whether any plantations exist, but in several public gardens and a few private gardens one or other of the species is found, grown either for its fruit or to feed the silk worm.

Six species of Mulberry, possibly not all distinct, are cultivated in India: three of these *Morus alba*, *Morus serrata* and *Morus laevigata* are indigenous.

Uses.

M. alba wood.—Manufacture of sporting requisites such as hockey sticks, cricket stumps, tennis and badmington rackets, racket presses, cheap cricket bats. It is also used for house building furniture and turnery. The Dhariwal Mills use it for picking arms and also for bobbins. It is used for spokes, poles, shafts and bent parts of carriages and carts.

Leaves.—Feeding silk-worms, especially in Kashmir.

Chief source of supply is Changa Manga, Punjab.

M. serrata.—Wood is used for furniture and carving (Simla) cabinet work, toys and sporting requisites.

M. laevigata.—The wood is used in Burma for furniture, planking, oars, cart-shafts, yokes and turnery. In Darjeeling for house building and in Assam for oars, stocks, spokes, poles and shafts of carriages and carts, as also for furniture. It is used by the Assam Bengal Railway in carriage and wagon construction.

Leaves.—Feeding silk-worms in Bengal.

Government of the United Provinces.

(F) Letter No. 128-I/XVIII-478, dated the 21st February, 1933.

With reference to your letter No. 51, dated January 20, 1933, I am directed to enclose six copies of replies to the questionnaire about the handloom silk weaving industry in the province.

Enclosure.

REPLIES TO THE TARIFF BOARD'S QUESTIONNAIRE FOR THE HANDLOOM INDUSTRY.

1. (i) About 10,000 looms are engaged in weaving pure silk.
- (ii) About 2,500 looms are engaged in weaving mixed silk and cotton goods.

(iii) About 75,000 looms are engaged in weaving cotton goods only.

No census of looms has been taken. These figures should, therefore, be taken as rough estimates.

2. Weavers' raw materials consist of—

- (i) Mulberry silk;
- (ii) spun silk;
- (iii) noil;
- (iv) artificial silk;
- (v) mercerised cotton yarn;
- (vi) gold and silver thread.

(i) Mulberry silk is imported from Bengal, Kashmere, Bangalore, China and Japan. At present Japanese silk, specially organzine, being more suitable for weaving, is naturally preferred owing to its low prices. Kashmere silk comes next to Japan silk both in price and quality and is used in fairly large quantities. The present market rates are:—

Japanese Organzine—Rs. 20 per seer.

Japanese Raw—Rs. 2-12 to Rs. 7-4 per lb.

Kashmere Organzine—Rs. 24 per lb.

Kashmere Raw—Rs. 7 per lb.

(ii) Spun silk is almost all foreign—chiefly Italian and Japanese. It is used to a very large extent, in the manufacture of “Kashi silk” and “Shahjehanpur silk” suitings, shirtings, sarees, chadars, etc. The current market rates at Benares are reported to be as follows:—

60/2 Cordonate silk—Re. 1-10 to Rs. 7 per bundle of 2 lbs.

140/2 Spun silk, grey—Rs. 44-8 to Rs. 45-8 per bundle of 11 lbs.

160/2 Spun silk, grey—Rs. 48 per bundle of 11 lbs.

210/10 Spun silk, grey Rs. 57-12 per bundle of 11 lbs.

40/2 Waste silk—Rs. 13-4 per bundle of 11 lbs.

120/2 Tussa silk—Rs. 31 per bundle of 11 lbs.

140/2 Tussa silk—Rs. 31-8 per bundle of 11 lbs.

(iii) Artificial silk is all imported, mostly from Japan. It is being used in large quantities at some of the weaving centres for the manufacture of sarees and cloth for curtains, cushion-covers, etc. Prices vary from Re. 1 to Re. 1-4 per lb.

British artificial silk is also used at Benares for boties, i.e., for flowers woven on the “ground” of sarees. British artificial silk is selling at Re. 1-12 per lb.

(iv) Gold thread used is practically all manufactured at Benares. Prices vary from As. 14 to Re. 1-2 per tola, according to quality.

3. (i) Twisting has now been practically abandoned as cheap Japanese organzine is available. Winding of weft is done by the families of weavers.

(ii) Boiling is generally done by a special class of men who boil silk hanks in an alkaline solution. The charge is As. 8 per seer. Some weavers do the boiling themselves.

(iii) Generally speaking, the dyeing is done by the weavers and their families.

(iv) Ready-made warps are generally obtainable from the yarn dealers. For superior cloth, dealers import or stock ready-made warps from Japan; for ordinary cloth they prepare their own warp as well. In some cases, however, the weavers also prepare their own warps with the assistance of their families. Practically no doubling is now done.

4. In the case of filature silk, average quality saree warp is generally of organzine and the weft of ordinary filature silk. For superior classes of goods both warp and weft are of organzine and for inferior goods raw silk is used both for warp and weft. Artificial and spun silk fabrics generally have the same material for both warp and weft.

5. Gulbadan, Daryai, Phulkari and Loongies are not woven in the United Provinces, the other varieties mentioned in the questionnaire are, besides these, may be mentioned Benarsi Pot, Lahanghas, ladies' suits and scarves. There is little foreign competition as regards Benares sarees, scarves and gotas. But in the other varieties including brocades the competition is keen.

6, 7 & 8. The statement appended gives the desired information.

9. About Rs. 1,25,00,000 is the approximate value of the production of silk goods of all sorts. This is a rough estimate based on enquiries at Benares. Accurate statistics are, however, not available.

10. Spun silk is generally used for article of every day use, e.g., suitings, coatings, shirtings, cheap sarees, dupattas, dhoties, handkerchiefs. It is also used for the "ground" warp and weft in Kamkhab. It is seldom used for the manufacture of the art fabrics of Benares.

11. Ordinarily yarn is sold for cash. In the case of sales on credit about Re. 1 to 1-8 per seer is charged extra. A running account is kept in the name of the Karkhanedar or workman. The time allowed varies from fifteen days to three months according to the buyer's standing. Accounts are ordinarily expected to be cleared on Dashera and Holi days; if this is not done, interest at the rate of Rs. 6½ per cent. to 12½ per cent. is charged.

12. Most of the silk yarn merchants in the United Provinces are retailers. There are only two firms at Benares which get yarn direct from Kashmere and Japan. These firms sell wholesale to retailers and also retail to weavers.

13. To merchants foreign silk offers greater profits. Weavers also prefer foreign silk, since they get organzine warps so cheap, and foreign silk comes at least re-reeled, if not twisted.

There is difference of opinion on this point. Some maintain that Indian silk is more durable; others maintain the opposite view. At present on account of the Swadeshi movement there is a keener demand for fabrics woven out of Indian silk.

14. Until recently this system was common in the case of Benares silk sarees and brocades. It is now losing ground because the mahajans find it cheaper and more convenient to buy the finished goods in the open market. Weavers too know the requirements of the mahajans, buy their own material, prepare the cloth and sell it to mahajans; they stand to gain more competitive prices. For superior quality goods and goods of special quality or design the mahajans still advance yarn to approved weavers and take back the cloth.

In the case of spun and artificial silk the common practice is not to supply the yarn to weavers, except in Benares where the system of supplying yarn still prevails in this class of goods.

15. Broadly speaking, artificial silk competes with cotton rather than silk goods. Poor people are tempted by the low prices of artificial silk fabrics and prefer them to coloured cotton goods to which they were accustomed.

16. The weavers are generally paid on the "piece" system. The piece wages at Benares range from Rs. 3 to Rs. 150 for gold thread fabrics and from Re. 1-12 to Rs. 3-8 per piece per spun silk fabrics. The necessary information about the cost of manufacture of typical classes under the heads mentioned in the questionnaire is not available.

17. There are very few industrial co-operative societies of silk weavers, in the province. They are ordinary credit societies which advance money only.

18. Benares filature fabrics are exported to almost all the chief towns of India. The mahajans of Benares buy up the fabrics from the weavers and supply them to merchants all over India and abroad. There is some export trade with foreign countries in Benares gold thread and silk fabrics.

Spun silk fabrics are similarly consumed in almost all the chief towns of India; there is, however, practically speaking no export trade in them. The cost of transport, freight, etc., is not known.

19. The demand for real silk has increased, during the last five years or so, largely because it is now much cheaper.

20. The present sources of supply of raw silk are Japan, China, Kashmere, Bangalore and Bengal. The quantity of raw silk consumed in the various markets of the United Provinces are not known and cannot be easily ascertained.

Statement for paras. 6, 7 and 8 of the Questionnaire.

Name of cloth.	Time taken to weave a piece.	Kind of silk used for each of them.	Length of piece.	Width of cloth.	Approximate price.
1. Sarees . . .	3 to 21 days and over.	Kora and organzine	4 to 9 yards.	30" to 50"	Rs. 12 to Rs. 500 each.
2. Gota . . .	4 to 15 days.	Badla warp and cotton weft.	20 yards	½" to 6"	As. 8 to Re. 1-8 per tola.
3. Dupatta . . .	3 to 20 days and over.	Kora and organzine	3 yards	50" to 60"	Rs. 6 to Rs. 150 each.
4. Handkerchiefs .	2 to 3 in a day.	Ditto	18" to 36"	18" to 36"	Rs. 1 to Rs. 5 each.
5. Suitings and shrt-ings.	1 to 2 days.	Spun silk warp and weft.	7 yards	27" to 54"	Rs. 7 to Rs. 50 per piece.
6. Gown piece .	3 to 20 days.	Kora and organzine and spun silk.	3 yards to 7 yards.	40" to 54"	Rs. 12 to Rs. 150 per piece.
7. Brocades . . .	5 to 40 and over.	Mercerised cotton, spun silk and raw silk for warp and weft.	4½ yards	28" to 30"	Rs. 5 to Rs. 400 per piece.

(2) *Letter No. 199-I/XVIII-478, dated the 8th March, 1933, from the Government of the United Provinces.*

In continuation of my letter No. 128-I, dated February 21, 1933, forwarding replies to the questionnaire about the handloom silk weaving industry in the United Provinces, I am directed to forward certain additional information in regard to question No. 16, together with a corrigendum to the answer to question No. 2.

APPENDIX I.

Additional information for question No. 16 regarding handloom weaving:—

	Rs. A.
(a) <i>Average quality saree—</i>	
1. Cost of material: (Katan) silk, 18 tolas, at As. 5 per tola	5 10
2. Cost of material: Gold thread, 16 tolas, at Re. 1 per tola	16 0
3. Cost of dyeing charges at As. 8 per saree	0 8
4. Degumming at As. 8 per seer	0 2
5. Weaving charges including preparatory processes per saree	18 0
6. Other expenses	3 4
Total	<u>43 8</u>

(b) <i>Average quality spun silk suiting—</i>	
1. Cost of material: 140 S/2 spun silk, 1 seer, at Rs. 9-4 per seer	9 4
2. Weaving charges including preparatory for 1 piece, 7 yards×54", Rs. 2 per piece	2 0
3. Finishing at As. 8 per piece	0 8
4. Other expenses at As. 2 per piece	0 2
Total	<u>11 14</u>

APPENDIX II.

Corrigendum.

In sub-paragraph (ii) of the answer to question No. 2 of the Tariff Board's Questionnaire for the handloom industry, against the item "60/2 Cordorate Silk" for "Re. 1-10 to Rs. 7 per bundle" read "Rs. 7 to Rs. 7-10 per bundle".

(3) *Letter No. 259, dated the 5th April, 1933, from the Tariff Board, to the Government of the United Provinces, Industries Department, Lucknow.*

I am directed to invite a reference to answer 16 to the Board's questionnaire regarding the handloom silk weaving industry forwarded with your letter No. 128-IXVII-478, dated the 21st February, 1933, and to request that the following additional information may kindly be supplied:—

- (1) Kind of imported silk generally used in bulk by the handloom weavers in Benares with their deniers and present market values per pound.
- (2) Kind of spun silk generally used in that place in bulk by the handloom weavers with their deniers and present market values per pound.
- (3) Pound of silk/spun silk required for average quality of saree or other silk clothing.

2. As the information is very urgently required the reply may be sent by

(4) *Letter No. 57, dated the 16th April, 1933, from the Principal, Government Central Weaving Institute, Benares, to the Secretary, Tariff Board.*

With reference to your letter No. 259, dated April 5, 1933, addressed to the Secretary to the Government of the United Provinces, Industries Department, I have the honour to submit the required information as follows in seriatim:—

1. Japanese Organzine of 13/15 deniers is generally used for warp and Canton Filature for weft in sarees. Present Benares market rates are Rs. 7-6 per lb. for the former and Rs. 3-14 per lb. for the latter.

2. Spun silks of the following counts are generally used and their present Benares market rates are marked against each:—

140/2 Spun silk (grey) at about Rs. 3-6 to Rs. 3-9 per lb.

160/2 Spun silk (grey) at about Rs. 4 to Rs. 4-4 per lb.

210/2 Spun silk (grey) at about Rs. 4-2 to Rs. 4-8 per lb.

60/2 Cordinate silk (grey) at about Rs. 3-4 to Rs. 3-12 per lb.

140/2 Tussa silk at about Rs. 2-10 per lb.

36/2 Waste silk (grey) at about Re. 1-4 per lb.

40/2 Waste silk (grey) at about Re. 1-5 to Re. 1-6 per lb.

3. 5 to 7 ounces of spun silk is required for a saree of 5 yards.

3 to 6 yards of spun silk suiting for 1 lbs. of yarn.

2 to 3 ozs. of organzine for 1 piece of saree 5 yards.

(5) *Letter No. 812/XVIII-618/32, dated the 1st May, 1933, from the Government of the United Provinces.*

In reply to your letter No. 259, dated April 5, 1933, I am directed to say that the information asked for therein has already been furnished to you direct by the Principal, Central Weaving Institute, Benares, in his letter No. 57, dated April 16, 1933, which may please be treated as the reply of this Government.

Government of Madras.

Letter No. 78-II/33—3, dated the 21st February, 1933.

PROTECTION TO SERICULTURAL INDUSTRY—HANDLOOM INDUSTRY—QUESTIONNAIRE.

With reference to your letter No. 51, dated the 20th January, 1933, I am directed to forward six copies of the replies submitted by the Director of Industries to the questionnaire of the Tariff Board relating to the handloom industry.

2. I am also to forward six copies of the graph* showing the fall in the price of Kollegal silk and the decline in the Chinese exchange referred to in the answer to question No. 48 of the questionnaire forwarded with my letter No. 78-II/33—3, dated the 23rd January, 1933.

Enclosure.

1. According to the census of 1931 the number of handlooms at work in this presidency was 193,474. The census figures, however, appear to be an under-estimate. The census returns do not, moreover, indicate separately the number of handlooms engaged in the weaving of different classes of fabrics. The total number of persons shown as following the occupation of cotton spinning, sizing and weaving according to the census of 1931, was

* Not printed.

486,248, while the number engaged in silk spinning and weaving was 34,489. It is not known, how many are engaged in weaving both cotton and mixed goods. It may, however, be pointed out that a particular weaver does not, as a rule, take to the weaving of any particular class of goods during the whole year, but changes according to the seasonal demands.

2. Raw silk required by handloom weavers in this presidency is obtained largely from Mysore, Kollegal, and China. It is reported that a limited quantity of Kashmir and Bengal silk is also consumed in this presidency, but exact figures relating to the imports of these silks are not available, owing to the discontinuance over a decade ago of the Rail-borne trade statistics. Twisted or thrown silk is generally prepared by the weavers in cottages on hand driven appliances. There are, however, three silk throwing concerns in this presidency. The factory at Mudikundam (Coimbatore District) produces and supplies thrown silk for the weavers. The other two concerns, one at Peddapuram (East Godavari District), and the other at Rayadrug in Bellary District—twist silk for their own weaving sections. A small quantity of twisted silk is imported from Japan.

Spun silk and artificial silk are imported from Europe and Japan, whilst gold thread is obtained from Surat, Benares and France.

The prices of the abovementioned raw materials vary considerably from time to time. However, approximate figures of prices are furnished below:—

Kollegal and Mysore hand reeled silk—Rs. 6 to Rs. 8 per lb.

Kollegal and Mysore filature reeled—Rs. 8 to Rs. 9 per lb.

Chinese hand reeled—Rs. 4 to Rs. 5-8 per lb.

Chinese filature—Rs. 6 to Rs. 7-8. per lb.

Country reeled thrown silk—Rs. 8 to Rs. 9 per lb.

Filature reeled thrown silk—Rs. 10 to Rs. 11 per lb.

Spun silk (Italian)—Rs. 4-8 to Rs. 6 per lb.

Artificial silk—Re. 1-4 to Re. 1-8 per lb.

Gold thread (Surat, Benares)—Rs. 28 to Rs. 35 per marc.

Gold thread (Lyon)—Rs. 32 to Rs. 40 per marc.

3. Throwing of raw silk, which comprises winding, cleaning, doubling and twisting, is carried on in different localities of the Presidency by different agencies. In some places, the weavers twist their requirements of silk yarn and in other places the work is undertaken by a separate class of cottage workers. There are at present only three power silk throwing factories in this presidency, one at Kollegal, one at Peddapuram and the other at Rayadrug in Bellary District. The first one twists silk for private parties, whilst the other two twists silk for their own requirements. Boiling off and dyeing operations are generally carried out by the weavers themselves, but these operations are sometimes entrusted by silk merchants to a separate class of dyers. The preparation of warp, which generally comprises winding and warping, is carried out by the weavers. In some places, however, the weavers also take to sizing of silk warps.

4. Generally, the handloom weavers use the same variety of silk, both for warp and weft, the difference being in the preparation of the silk—according as it is intended for warp or for weft.

5. The classes of silk goods produced in this presidency are sarees, blouse materials, dhoties, angavastrams, rumals, turban cloths, kailies, suitings, shirtings and silk brocades. The competition of imported silk goods is mainly in suitings, shirtings, blouse materials, sarees and silk brocades.

6. The daily output of cloth on the handloom varies with the nature of the appliances used such as hand shuttle or fly shuttle slay, draw-boy harness, dobby or jacquard, the class of silk employed, the quality, particulars of cloths and the skill of the weaver. The following figures give the approxi-

mate output per day of 8 hours, in the case of different varieties. In the case of solid bordered cloths and figured garments the weaver is assisted by a junior weaver.

Classes of goods.	Production per day of 8 hours.	
	Yds.	
1. Saree, plain	1	2/3
2. Saree, figure in border	1	1/6
3. Saree, solid border		5/6
4. Saree, check pattern, with gold thread borders		3/4
5. Angavastram, plain	1	2/3
6. Angavastram, with gold thread borders	1	5/9
7. Rumals	1	1/2
8. Dhoties, plain	1	2/3
9. Dhoties, solid border	1	1/9
10. Shirting, plain	1	2/3
11. Shirting, striped	1	2/3
12. Suitings	3	
13. Turban cloths	1	5/6
14. Blouse materials with solid border		5/6
15 Silk brocades		11/18

7. Kollegal and Mysore silks are generally used for sarees and blouse materials, as fabrics produced from these silks wear well and withstand frequent washing. Occasionally, dhoties are also made from local silk. But the silk weavers in Ganjam District as also in Conjeevaram and Trichinopoly, use Bengal silk as well. Imported silks are used largely in the manufacture of shirtings, angavastrams, rumals, and other varieties of finer fabrics, owing to the comparatively low prices of such silks. Imported spun silk is used for suiting cloths.

Figures relating to the different varieties of silk consumed in this presidency are not available owing to the discontinuance of Rail-borne Trade Statistics. But the approximate quantity of silk locally available and imported annually into this presidency is given below:—

	lbs.
Quantity available from Kollegal and Mysore	7.5 lakhs.
Quantity imported by Sea and Rail* (Chinese, Kashmir and Bengal)	9.5 lakhs.
Total	17 lakhs.

8. The prices of different varieties of silk cloths produced in this presidency vary considerably in accordance with the locality, the weight of silk used, nature of the weave and dyes used.

Classes of goods.	Dimensions of piece.	Sale price.	
		Rs. a.	
1. Saree, plain	45" × 9 yds.	21	0
2. Saree, figured	45" × 9 yds.	25	0
3. Saree, solid border, with lace	45" × 9 yds.	30	0
4. Saree, check pattern, with gold thread borders	45" × 9 yds.	35	0

* As based on figures of previous years.

Classes of goods.	Dimensions of piece.	Sale price, Rs. A.
5. Angavastram, plain	45" x 3 yds.	6 12
6. Angavastram, with gold thread borders	45" x 3 yds.	8 12
7. Rumals, with gold thread in border and cross border	45" x 2½ yds.	11 0
8. Dhoties, plain	52" x 4 yds.	10 0
9. Dhoties, solid border	52" x 4 yds.	11 0
10. Shirting, plain	45" x 25 yds.	37 8
11. Shirting, striped	45" x 25 yds.	40 0
12. Suitings	28" x 25 yds.	37 8
13. Turban cloths	45" x 4 yds.	9 0
14. Blouse materials, with solid border	45" x 4½ yds.	15 0
15. Silk brocades	45" x 9 yds.	85 0

9. It is not possible to give any definite indication of the value of silk fabrics produced in this presidency, as exact figures in regard to the consumption of raw silk by the handloom weavers are not available. Further, as the cost of production of the different varieties of fabrics varies largely in different localities with the quality and price of silk, labour charge for weaving, dyeing, etc., and the nature of processes and appliances used, it is not possible to arrive at a definite estimate of the value of silk goods manufactured. But taking roughly the available annual production and imports of raw silk at about 17 lakhs of lbs. valued at about Rs. 85 lakhs and the percentage of the cost of manufacture to the cost of raw silk at about cent. per cent., the approximate value of the output may be put down at Rs. 170 lakhs.

10. Spun silk of the coarse variety is generally used for suiting cloths, cushion and sofa cloths while the fine variety of spun silk is used for shirting cloths.

11. Most of the silk weavers work on wages for the cloth merchants, who supply raw silk to them according to their reliability. Generally, sufficient quantity of silk for weaving a pair of sarees or other fabrics is given and this keeps the weaver engaged for a week to a fortnight.

12. Wholesale silk merchants do not generally sell silk direct to the weavers. It is only the master-weavers or cloth merchants who purchase silk from wholesale dealers, that distribute it to the weavers. There are also a few independent weavers who obtain their supplies of silk direct from local retail silk dealers, either for cash or on credit.

13. In point of lustre, tensile strength and weaving and washing qualities, Kollegal silk is superior to imported Chinese silk. It is on account of this superiority that certain classes of people are prepared to pay a higher price for cloths produced from local silk.

In the process of manufacture, the winding qualities of Kollegal country reeled silk are inferior to that of the Chinese hand reeled silk. But Kollegal silk, reeled on improved Departmental reeling machines or power steam filature, is not inferior in quality to Chinese re-reeled or filature silk respectively in respect of uniformity and winding qualities.

14. Please see answer to question 11.

15. The competition of artificial silk yarn and cloths has adversely affected the demand for certain classes of silk goods and has lowered the price of silk fabrics generally, owing to the growing tendency on the part of the consuming public to substitute silk fabrics by the cheap and attractive artificial silk cloths imported from abroad.

The imports of artificial silk piecegoods and of artificial silk yarn into India and the Madras Presidency during the last three years are shown below:—

Year.	Into India.	Into Madras.
1850	1,000	1,000
1851	1,000	1,000
1852	1,000	1,000
1853	1,000	1,000
1854	1,000	1,000
1855	1,000	1,000
1856	1,000	1,000
1857	1,000	1,000
1858	1,000	1,000
1859	1,000	1,000
1860	1,000	1,000
1861	1,000	1,000
1862	1,000	1,000
1863	1,000	1,000
1864	1,000	1,000
1865	1,000	1,000
1866	1,000	1,000
1867	1,000	1,000
1868	1,000	1,000
1869	1,000	1,000
1870	1,000	1,000
1871	1,000	1,000
1872	1,000	1,000
1873	1,000	1,000
1874	1,000	1,000
1875	1,000	1,000
1876	1,000	1,000
1877	1,000	1,000
1878	1,000	1,000
1879	1,000	1,000
1880	1,000	1,000
1881	1,000	1,000
1882	1,000	1,000
1883	1,000	1,000
1884	1,000	1,000
1885	1,000	1,000
1886	1,000	1,000
1887	1,000	1,000
1888	1,000	1,000
1889	1,000	1,000
1890	1,000	1,000
1891	1,000	1,000
1892	1,000	1,000
1893	1,000	1,000
1894	1,000	1,000
1895	1,000	1,000
1896	1,000	1,000
1897	1,000	1,000
1898	1,000	1,000
1899	1,000	1,000
1900	1,000	1,000
1901	1,000	1,000
1902	1,000	1,000
1903	1,000	1,000
1904	1,000	1,000
1905	1,000	1,000
1906	1,000	1,000
1907	1,000	1,000
1908	1,000	1,000
1909	1,000	1,000
1910	1,000	1,000
1911	1,000	1,000
1912	1,000	1,000
1913	1,000	1,000
1914	1,000	1,000
1915	1,000	1,000
1916	1,000	1,000
1917	1,000	1,000
1918	1,000	1,000
1919	1,000	1,000
1920	1,000	1,000
1921	1,000	1,000
1922	1,000	1,000
1923	1,000	1,000
1924	1,000	1,000
1925	1,000	1,000
1926	1,000	1,000
1927	1,000	1,000
1928	1,000	1,000
1929	1,000	1,000
1930	1,000	1,000
1931	1,000	1,000
1932	1,000	1,000
1933	1,000	1,000
1934	1,000	1,000
1935	1,000	1,000
1936	1,000	1,000
1937	1,000	1,000
1938	1,000	1,000
1939	1,000	1,000
1940	1,000	1,000
1941	1,000	1,000
1942	1,000	1,000
1943	1,000	1,000
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1954	1,000	1,000
1955	1,000	1,000
1956	1,000	1,000
1957	1,000	1,000
1958	1,000	1,000
1959	1,000	1,000
1960	1,000	1,000
1961	1,000	1,000
1962	1,000	1,000
1963	1,000	1,000
1964	1,000	1,000
1965	1,000	1,00

Imports of artificial silk piecegoods (in 1,000 yards).

1929-30	.	.	.	.	.	56,600	408
1930-31	.	.	.	.	.	51,495	3,015
1931-32	.	.	.	.	.	84,639	5,090

Imports of artificial silk yarn (in 1,000 lbs.)

1929-30	.	.	.	.	.	.	7,353	2,219
1930-31	.	.	.	.	.	.	7,119	2,433
1931-32	.	.	.	.	.	.	7,962	2,423

16. The cost of manufacture of cloths varies in different localities with the price of raw material and with labour charges. However, figures of approximate cost of typical classes are given below:—

	Raw material.	Twisting and winding charges.	Dyeing charges.	Weaving charges.*
	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Saree, plain	9 8	1 4	2 8	6 0
Saree, figured	13 0	1 4	2 8	7 0
Saree, solid border, with lace	14 8	1 4	2 8	9 0
Saree, checked pattern, with lace border.	16 0	1 4	2 8	12 0
Angavastram, plain	2 0	0 9	1 0	1 5
Angavastram, with gold thread borders	3 8	0 10	1 0	1 10
Dhoties, plain	6 0	0 12	0 4	1 8
Dhoties, solid border	6 0	0 12	0 8	3 0
Shirting, plain (white)	15 0	10 0	...	9 12
Shirting, striped	15 0	10 0	1 0	10 12
Suitings (white)	20 0	8 0	...	6 4
Rumals	7 0	0 10	0 10	2 0
Turban cloths (white)	5 8	0 12	...	1 10
Blouse material	7 4	0 10	1 4	4 8
Silk brocades	37 0	1 8	2 8	35 0

17. It is reported that silk weavers societies in this presidency with few exceptions are mostly credit societies. They do not assist the weavers in getting the raw materials, nor do they advance money on finished products. One society however distributes to the weavers raw material to be woven into cloth and pays wages to them at the same rates as those paid to weavers by capitalist merchants, the members having also a share in the profits earned by the Society. This Society does not advance money to its members. There is yet another Society which has no silk weaver members but it purchases silk, cotton yarn, etc., and distributes them to the members from time to time and pays the weaving charges. The silk is used for borders and headings of the cotton sarees and dhoties. The members of this society weave to patterns as ordered and return the finished products to the society which arranges to sell them in the market.

18. The silk goods produced in this presidency are mostly marketed at the principal towns. The cloth merchants in these towns purchase the

* i.e., weavers' charges. The weavers are paid by the piece.

goods either through their own agents or through merchants at the places of manufacture. Some merchants own shops in the towns as well as in the weaving centres. Some quantity of silk goods are, it is reported, exported to Bombay, Calcutta, Punjab, Delhi, Rangoon and Ceylon. The weavers do not bear the transport charges. These are met by the merchants who take over the cloths and market them.

19. In the absence of figures regarding the consumption of raw silk in this presidency for a number of years, it is difficult to say whether there has been any increase or decrease in the demand for silk and silk goods. But the consumption of indigenous silk is bound to increase if sufficient protection is granted to the industry. An increase in the output of raw silk, introduction of improved reeling machines, establishment of linked organisations for the supply of twisted silk, etc., can be brought about if a certain percentage of the proceeds of the revenue derived from import duty is given for organising the industry.

20. The sources of supply of raw silk have already been indicated in answer to question No. 2. The principal centres of consumption of raw silk are Kollegal, Conjeevaram, Kumbakonam, Mayavaram, Tanjore, Dharmavaram, Salem, Narayanavaram, Peddapuram, Rajahmundry, Arni, Coimbatore, Madura and Berhampore. Figures regarding the consumption of raw silk at the several centres mentioned above are not available, owing to the discontinuance of Rail-borne Trade Statistics.

Government of Bihar and Orissa.

Letter No. 733/II-C. 3-Com., dated the 23rd February, 1933.

Subject:—ENQUIRY INTO THE HANDLOOM INDUSTRY ENGAGED IN WEAVING SILK GOODS.

I am directed to refer to your letter No. 51, dated the 20th January, 1933, enclosing a copy of the questionnaire relating to the handloom industry and to forward replies to the questions giving detailed information on the points dealt with therein as far as possible.

2. As desired in paragraph 2 of the letter, I am to state that the questionnaire was distributed to the merchants of this province who are interested in the industry.

Enclosure.

Replies to questionnaire forwarded with Tariff Board's letter No. 51, dated the 20th January, 1933.

1. As per Census Report of 1931—

- (1) 3,900 persons.
- (2) Not available.
- (8) 239,728.

2. The weavers use mostly tasar silk reeled from cocoons which are collected from local forests. Reeled mulberry silk, which is rarely used, is obtained from Bengal and Mysore. The spun silk, imported from Japan and Italy, is used by some of the silk weavers of Bhagalpur. A small quantity of artificial silk yarn, mostly imported from Japan, is used by a few weavers of Manpur in the Gaya district. Gold thread is not used in Bihar and Orissa. The prices of various kinds of silk are noted below:—

- (1) Reeled tasar silk—Rs. 10 per seer.
- (2) (a) Reeled mulberry silk (filature)—Rs. 8-12 per lb.
- (b) Reeled mulberry silk (country Ghai)—Rs. 5-8 per lb.
- (3) 140 spun silk yarn—Rs. 45 per bundle of 11 lbs.
- (4) Artificial silk of 200 Deniers—Rs. 2 per lb.

3. (i) & (ii) Not carried.

(iii) & (iv) Is done by weavers themselves.

4. Reeled tasar silk is used both for warp and weft. Reeled mulberry silk is used by some weavers for weft only. Spun silk is used for warp and weft, while artificial silk is woven as weft.

5. Items (4) sarees, (6) dupattas, (7) lungies, (8) handkerchiefs and (9) suitings and shirtings are being woven. Besides these "Bafta" chaddars, shirtings and sarees of tasar warp and cotton weft are also being woven. Reeled mulberry silk is mostly used for "extra weft" figuring in cross-borders of sarees woven by the weavers of Orissa. There is practically no competition in goods (4) and (6). But the weavers have to face competition in spun silk goods item (9) such as shirtings and coatings, for these are manufactured in other provinces and similar goods are also imported from Japan. The local manufacture of spun silk shirtings is adversely affected by Japanese competition.

6. Tasar silk sarees and dupattas (items 4 and 6) take 3 days to weave a piece of 5 yards. The same of spun silk take 1 day, lungies (item 7) of tasar silk and cotton 4 to 5 yards a day, handkerchiefs (item 8) of tasar and cotton 6 yards a day and shirtings (item 9) of spun silk both in warp and weft 7 to 8 yards a day.

7. For items (4) and (6) reeled tasar weighing 12 ozs.

For items (4) and (6) spun silk $\frac{3}{4}$ th of a lb.

Item (7) Lungies, reeled tasar and cotton, $2\frac{1}{4}$ yds. \times 44", weighing $\frac{1}{2}$ lb.

Item (8) Handkerchiefs, reeled tasar and cotton, mixed $\frac{1}{2}$ oz.

Item (9) For shirtings spun silk is used and about 9 yards of the same weighing 1 lb. 6 ozs.

8. Items (4) and (6), 5 yards \times 44". Price of tasar saree is about Rs. 7-8.

Spun silk saree, 5 yards \times 44", costs about Rs. 6.

Item (7) lungies about Rs. 3-8 a pair of $4\frac{1}{2}$ yards.

Item (8) handkerchiefs, 18" sq., costs about As. 3.

Item (9) shirtings, 32" wide, costs about As. 13 per yard.

9. No remark.

10. Spun silk is used for shirtings, suitings, chaddars and sarees. Its use is not restricted to any particular kind of cloth.

11. Usually there is no system of supplying silk to weavers on credit.

12. There are no importers' agents to sell silk in Bihar and Orissa.

13. No comparison in qualities of different silk yarns is possible for the reason that tasar silk, largely used in Bihar and Orissa, is peculiar to itself and is not imported. Again as the consumption of reeled silk is very small, no foreign raw silk is used. Spun silk and artificial silk of Indian origin are also not available.

14. Yes. No special condition is generally imposed. The weavers return silk pieces of the same weight as that of the yarn supplied to them and receive weaving charges at rates agreed upon.

15. No remark.

16. *Vide* Statement A enclosed.

17. No assistance of the type referred to appears to be tendered by the Co-operative Societies. A couple of weavers' societies are run as any of the ordinary credit societies.

18. Manufactured articles are mostly sold by weavers round about the places where these are woven. Some of the silk Mahajans, however, export spun silk goods and "Bafta" fabrics to the neighbouring provinces of Bengal, United Provinces and Madras. Tasar silk turbans were once largely exported to the Punjab.

19 & 20. No remarks.

STATEMENT A.

Pattern.	Weight.	Cost of material.	Twisting and winding charge.	Dyeing charge.	Weaving charge.	Cost of labour.	Other charge washing, etc.
	Ch. T.	Rs. A. P.	As.	As.	Rs. A.	Rs.	As.
4. Tasar silk sari, 5 yds. × 44", price Rs. 7-8.	6 0	4 8 0	8	1	2 5	..	2
4. Spun silk sari, 2 10/2 m/s mulberry 5 yds. × 44", price Rs. 6.	6 0	4 8 0	10	2	0 10	..	2
7. Bafta lungi, one pair, 4½ yds. × 44", price Rs. 3-10.	9 0 wt. of 1 pair.	0 8 0 0 8 0 R. Tasar. 1 0 0 Cotton.	10	4	0 10	..	2
8. Bafta handkerchief, 18" × 18", price As. 3.	0 1	0 1 6 R. Tasar. 0 0 6 Cotton.	..	..	0 1	..	..
9. Spun silk shirting, 9 yds. × 32", 140/2 M/S.	11 0	5 13 6	8	2	0 10	..	2

The weavers working for the capitalists are paid at piece rates mentioned in the above statement under weaving charges.

Government of the Punjab.

Letter No. 6116, dated the 1st March, 1933.

With reference to your letter No. 51, dated the 20th January, 1933, I am directed by the Governor-in-Council to forward replies (with six spare copies) to the questionnaire for the handloom industry so far as this province is concerned.

Enclosure.

REPLIES TO QUESTIONNAIRE FOR THE HANDLOOM INDUSTRY.

1. (i) 3,000.
- (ii) 2,500.
- (iii) 1,86,837.

2. Except in the case of weaver members of co-operative societies in certain localities where yarn is supplied to them by the society raw materials are generally obtained by the weavers from the local retail dealers who in their turn obtain supplies from collecting and distributing centres like Amritsar, Ludhiana, and Multan. Amritsar, Ludhiana, and Multan generally obtain their supplies either from the manufacturers direct or from importing agencies at Bombay, Calcutta, or Karachi. The prices of the various kinds of silk yarns used in the Punjab are given below:—

Raw silk yarn Rs. 5 to Rs. 6-8 per lb.

Spun silk yarn Rs. 4 to Rs. 5-8 per lb.

Artificial silk yarn Re. 1 per lb.

Gold thread is not consumed in the province.

3. (i) In the case of raw silk the process is carried out by some other agency. This work is either got done on piece-work, or where the work is heavy, special persons are employed for twisting and winding. In the case of spun silk, artificial silk, and cotton yarn, twisting and winding is done by the weaver himself with the help of his family members, viz.,

his wife, children and other dependants. In Factories this work is done by a separate agency where women are generally employed.

(ii) & (iii) Ordinarily the processes of boiling off and dyeing are carried out by the weaver himself with the aid of his family members, but where work is carried on on a large scale some other agency is employed, e.g., regular dyers and bleachers.

(iv) In the case of cotton and artificial silk, doubling and preparing the warp are done by the weaver himself with the aid of his family members. In the case of raw silk and spun silk, this work is done partly by the weaver and partly by some other agency, for ready made warps are imported from Yarkand, Japan, and Shanghai. The imported warps are used by weavers on primitive looms. The weavers working on fly shuttle or power looms mainly use yarn in hanks.

4. Silk is used in warp and weft as under:—

Raw silk yarn is used in warp and weft.

Raw silk yarn is used in warp and spun silk for weft.

Spun silk is used for warp and weft.

Artificial silk is used for warp and weft.

Mercerised cotton is used for warp and spun silk for weft.

Mercerised cotton is used for warp and artificial silk for weft.

Spun silk is used for warp and raw silk for weft.

For gota, lametta and artificial silk is used in the warp and raw silk in the weft.

5. The following varieties of silk goods are generally woven by the weavers in the Punjab:—

Gulbadan.

Daryai.

Sarees.

Gota.

Dupattas.

Head and Tehband Loongies.

Handkerchief.

Suitings and shirtings.

Phulkari (cotton cloth embroidered with silk yarn).

Gulbadan, daryai, handkerchiefs, suitings and shirting cloth are the chief varieties in which competition is most felt. In 1920 about 3,000 looms were working on gulbadan and daryai. Now there are only 300 such looms left. Amritsar, Multan, and Jullundur, which are the most important centres of production of these qualities, have now about 100 looms engaged on this work.

6. Daily production is as follows:—

Gulbadan—2 to 4 yards.

Daryai—3 to 6 yards.

Sarees—2 to 6 yards on handloom and 25 to 30 yards on power loom.

Gota—from 30 to 50 yards by primitive arrangement and from 100 to 400 yards on automatic gota machine.

Dupattas—from 2 to 6 yards on handloom and from 30 to 35 yards on power loom.

Loongies—from 2 to 15 yards.

Handkerchief—from 4 to 20 handkerchiefs.

Suitings and shirtings—from 5 to 15 yards on handloom and from 30 to 40 yards on power loom.

Phulkari—it is a needle embroidery work and a lady ordinarily takes 10 to 30 days in completing one piece measuring 3×1½ yards.

7. The undermentioned kinds and quantities of silk are used in the manufacture of the varieties mentioned above:—

Serial No.	Name of cloth.	Kind of silk used.	Quantity consumed against given production.
1	2	3	4
1	Gulbadan . . .	Kashmir or Yarkand raw silk in warp and weft.	Warp 2 lbs., weft 2½ lbs., "for 30 yds. × 26" piece";
2	Daryai, Real . . .	Ditto . . .	Ditto.
	" , Reel . . .	Mercerised cotton warp and artificial silk weft.	Warp 5 lbs., weft 4½ lbs., "for 64 yds. × 22".
	" , Gola . . .	Spun silk warp and raw silk weft.	Warp 2½ lbs., weft 2½ lbs., "for 54 yds. × 26" piece".
3	Sarees . . .	Spun silk warp and weft	11 ozs. to 15 ozs. per sarees of 5 yds. × 45".
4	Dupattas . . .	Ditto . . .	8 to 11 ozs. per piece of 3 yds. × 1½ yds.
5	Gota . . .	Lametta and artificial silk for warp and real silk for weft.	Warp Lametta 1 lb. 11 ozs. raw silk 3 ozs., weft real silk 3 ozs.
6	Loongies, head . . .	Real silk warp and weft .	Warp 4 ozs., weft 4 ozs.
	" , Tehband . . .	Ditto . . .	Warp 6 ozs., weft 6 ozs.
7	Handkerchiefs . . .	Mercerised cotton warp and artificial silk weft.	Warp 5 lbs., weft 4½ lbs., for 145 yds. × 22" piece.
8	Shirtings, for 25 yds. × 28" piece.	Spun silk warp and weft	Warp 1½ lbs., weft 1½ lbs.
	Suitings, for 25 yds. × 28".	Ditto . . .	Warp 3 lbs., weft 3 lbs.
9	Phulkaries . . .	Khadar cloth embroidered with Kotha of mai silk yarn called "Pat".	12 ozs. to 1 lb.

8. The following are the approximate prices and dimensions of the typical varieties of cloth produced in the province:—

Serial No.	Name of cloth.	Dimension.	Approximate price.
1	2	3	4
1	Gulbadan . . .	30 yds. × 26" . . .	Rs. 1-12 per yard.
2	Daryai, Real . . .	30 yds. × 26" . . .	Rs. 1-12 per yard.
	" , Gola . . .	26 yds. × 26" . . .	Rs. 1-2 per yard.
	" , Reel . . .	32 yds. × 22" . . .	As. 5-3 per yard.
3	Sarees . . .	5 or 6 yds. long and 44" to 48" wide.	From Rs. 4 to Rs. 5 per saree.
4	Dupattas . . .	3 yds. long and 1½ yds. wide.	Rs. 3 to Rs. 5 per dupatta.
5	Gota . . .	9½ yards . . .	As. 13 per tola.
6	Loongi (Head) . . .	5 to 8 yds. long and 27" wide.	Rs. 5 to Rs. 15 per loongie.
	" (Tehband) . . .	Ditto . . .	Ditto.
	" (Tehband) . . .	5 to 6 yds. long and 25" wide.	Rs. 3-4 to Rs. 30 per piece.
7	Handkerchiefs . . .	22" × 22" sq. . . .	As. 1-6 each.
8	Suitings . . .	25 yds. × 28" . . .	Re. 1 to Rs. 3 per yard.
	Shirtings . . .	Ditto . . .	As. 10 to Re. 1-8 per yard.
9	Phulkari . . .	3 yds. × 1½ yds. . . .	Rs. 15 to Rs. 50 per Phulkari.

9. The approximate value of the total annual production of all sorts is given below:—

	Rs.
1. Gulbadan	40,000
2. Daryai, Real	1,20,000
Daryai, Reel	4,50,000
Daryai, Gola	2,00,000
3. Sarees	3,00,000
4. Dupattas	1,10,000
5. Gota	1,60,000
6. Loongies (Head)	70,000
Loongies (Tehband)	2,20,000
7. Handkerchiefs	40,000
8. Suitings and shirtings	8,00,000
9. Phulkaris	80,000

10. Spun silk is used chiefly for weaving purposes. Its use is not restricted to any particular kind of cloth. In fact its use is preferred when cloth is being produced on fly-shuttle and power looms on account of its better strength as compared with raw silk.

11. There is no general established practice in this behalf but at certain places merchants do supply silk yarn to weavers on credit generally sufficient for one warp and weft for a period of one month. The value of this credit rarely exceeds Rs. 100.

12. Silk merchants who are importers or agents do not sell direct but to weavers: they sell through retailers or middlemen.

13. The Indian silk consumed in this province is generally of Kashmere origin. It is considered to be superior in quality to the imported silk, but its price is higher.

14. The system of supplying silk to weavers and taking back the cloth from them does not prevail at certain places in the province. Shopkeepers dealing in cloth as well as in yarn do give out yarn to weavers and take back the cloth from them. When the cloth is brought back, the yarn is adjusted against the yarn account and certain wages are paid to the weaver for weaving. At certain places it is understood that the middleman who gives out yarn also charges interest at rates ranging between 1 to 2 per cent. per month from the weaver for the period for which he keeps the yarn in hand.

15. The introduction of artificial silk has affected the market for real silk. Artificial silk has silky appearance and is cheaper. With the introduction of artificial silk the weaving of real silk has decreased considerably. At the same time the import of cheaper and better finished artificial silk and cloth from foreign countries, especially Japan, has affected the market for real silk and with it the work of silk weavers.

16. The following statement will give the approximate cost of manufacture of typical classes of cloth under the various heads:—

Serial No.	Name of cloth.	Cost of raw material.	Twisting and winding charges.	Dyeing charges.	Weaving charges.	Cost of labour and other charges.	Total cost.
1	2	3	4	5	6	7	8
		Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1	Gulbadan, 30 yds. × 26".	28 0	3 8	2 0	11 0	2 0	46 8
2	Daryai, Real, 30 yds × 26".	28 0	3 0	2 0	11 0	2 0	46 0
	Daryai, Gola, 54 yds. × 26".	40 0	1 0	2 0	10 0	1 0	54 0
	Daryai, Reel, 64 yds × 22".	12 0	1 0	1 8	6 0	1 8	22 0
3	Sarees, 5 yds. × 45"	2 0	0 4	0 4	1 0	0 8	4 0
4	Dupattas, 3 yds. × 1½ yds.	1 6	0 3	..	0 9	0 6	2 8
5	Gota, for 80 tola 8 mashas.	50 0	1 8	1 0	1 0	0 8	54 0
6	Loongies (Head), 6 yds. × 27".	6 0	0 4	0 8	1 0	0 8	8 8
7	Loongies (Tehband), pure silk (6 yds. × 25").	10 0	1 0	1 0	3 0	1 0	16 0
	Loongies (Tehband), with silk border.	2 0	0 4	0 4	0 8	0 4	3 4
8	Handkerchiefs (22" × 22").	16 0	1 0	2 0	3 0	0 8	22 8
9	Suitings, 25 yds. × 28"	16 8	0 8	0 8	4 12	1 8	23 12
	Shirtings, 25 yds. × 28"	11 0	0 8	0 8	4 12	1 8	18 4
10	Phulkari, 3 yds. × 1½ yds.	5 8	0 8	1 0	7 0	1 0	15 0

The weavers in the Punjab are paid on the basis of daily wages or piece work. The rates allowed to them are given in the above statement.

17. This concerns the Co-operative Department.

18. In rural areas the weaver manufactures cloth for the local zamindars and other residents of the locality. The little surplus left over is sold to petty shopkeepers for local consumption or export to other places. In the eastern districts of the Punjab, cloth is brought to and sold by the weaver at the *piths* (weekly markets). The transport charges in such cases do not exceed a couple of rupees per maund.

In certain cases weavers who are not engaged on weaving take the cloth from the petty shopkeepers and sell it by hawking about in villages or at local fairs. The cost of transport charges incurred in such cases is about one pice per yard.

Certain varieties of cloth are prepared for contractors who may have to meet large demands from a State or from some other quarter. The transport charges in such cases are reported to come to about Rs. 3 to Rs. 4 per maund.

The most prevalent method is the one by which the capitalist shopkeeper at important weaving centres in the province gives work to weavers

on the piece-wage system. Such dealers keep cloth for local consumption and for export to other places according to demand. In such cases the transport charges are borne by the shopkeeper and not by the weaver. The transport charges are estimated to be between Rs. 3 and Rs. 8 per maund.

There are no special marketing arrangements for the weaver. He has to weave against orders or to take his chance with the shopkeepers if the cloth is woven without an order. In the latter case it is for the shopkeeper to dictate his terms.

19. Since the advent of artificial silk and artificial silk cloth the demand for natural silk is decreasing owing to its higher price.

20. Raw silk in the Punjab is used for weaving as well as for embroidery purposes. The silk used for embroidery work is imported from Japan, China, or Italy, while the silk used in weaving comes from Yarkand or Kashmere.

The approximate annual consumption of raw silk of various kinds in the Punjab is given below :—

	Quantity. lbs.	Value. Rs.
Indian	40,400	2,51,100
Foreign	227,700	9,92,200
Grand Total	268,100	12,43,300

Government of the Central Provinces.

Letter No. 512/449-XIII, dated the 6th March, 1933.

With reference to your letter No. 51, dated the 20th January, 1933, on the subject noted above, I am directed by the Governor-in-Council to forward the replies to the questionnaire relating to the handloom industry (with six spare copies) so far as this province is concerned.

Enclosure.

REPLIES TO QUESTIONNAIRE ISSUED BY THE TARIFF BOARD IN CONNECTION WITH ITS ENQUIRY INTO THE SERICULTURAL INDUSTRY—HANDLOOM INDUSTRY.

Reference :—Letter No. 51, dated Poona, the 20th January, 1933, from the Secretary to the Tariff Board, to the Secretary to the Government of the Central Provinces, Commerce and Industry Department, Nagpur.

1. The approximate total number of looms engaged in hand weaving is 97,500. The number of weavers (apart from those helping in preparatory processes) may be taken to be the same. Of the looms about 3,000 exclusively use tasar silk; about 16,500 weave cotton and silk mixed goods. Some of the weavers engaged in weaving mixed goods weave only pure cotton goods during part of the year when the demand for silk bordered cloth is slack. The rest of the weavers using about 78,000 looms are engaged in weaving purely cotton goods.

2. Raw silk (tasar only) grown locally is reeled and used for weaving. A considerable quantity of tasar is also imported from Bihar in the form of cocoons. Mulberry silk is imported from Kashmere and China. Bulk of the imported mulberry is from China. Gold thread used is mostly Indian while a small quantity of foreign gold thread was also used until two years ago for manufacturing cheaper varieties of cloth but no foreign gold thread is now available. Artificial silk and spun silk are wholly imported from foreign countries.

Prices paid from the above to-day are:—

- (1) 300 cocoons per rupee for tasar grown in the Central Provinces;
 - (2) Tasar yarn from imported cocoons as well as local cocoons is sold at Rs. 6 per lb.;
 - (3) Reeled mulberry yarn imported from Kashmere is sold at Rs. 7-10, Rs. 6-12 and Rs. 6-8 per lb. locally;
 - (4) Reeled mulberry imported from China is sold at Rs. 4-6 per lb.
 - (5) Indian gold thread from Surat is sold at—
Rs. 17 for 800 counts weighing 21 tolas.
Rs. 16 for 1,000 counts weighing 21 tolas.
Rs. 18 for 1,200 counts weighing 21 tolas.
Rs. 23 to Rs. 25 for 2,000 counts weighing 21 tolas.
 - (6) Artificial silk is sold for Re. 1 to Rs. 1-2 per lb.
 - (7) Spun silk is sold at Rs. 5-7-3 and Rs. 4-4-2 per lb. for 210/2s and 140/2s.
3. (i) Twisting and winding is done by hired labour.
(ii) Boiling off is done by the dyer. Mostly degummed thread is used.
(iii) Dyeing is done by professional dyers for the weavers and some dyed yarn is sold by retail merchants. In some cases the weavers dye their own silk.
(iv) Doubling and preparing the warp is done by the weaver's own family in some cases and also by hired labour.

The above refers to mulberry yarn while tasar is treated by the weaver himself excepting the material handled by a few professional reelers who sell tasar yarn in the form of warps, while dyeing is done by the weaver himself.

4. Tasar yarn is used both warp and weft. Indian mulberry is used for warp and foreign imported yarn for weft in some cases. Others use only imported mulberry of one quality for warp and weft also which is from China.

5. (1) Sarees with silk warp and cotton weft.
- (2) Sarees with silk borders and the same coloured silk weft used in borders with cotton warp and weft in the body of the cloth (solid bordered).
- (3) Silk solid bordered dhoties and uparnes.
- (4) Silk "khans" blouse pieces (with silk borders).
- (5) Tasar silk shirting and coating.
- (6) Tasar sarees, dhoties and turban cloths.

Nothing out of imported goods are similar to the handloom woven varieties specified above and there is therefore no competition taken quality for quality.

Tasar turban cloths are the only kind in the place of which imported fine cotton turban cloths are used. The manufacture of tasar turban cloths has considerably diminished on that account.

6. (1) 4 days to one week is required to weave sarees with silk warp and cotton weft.

(2) 2 to 3 days to weave silk bordered sarees and dhoties.

(3) 'Khans' are woven at the rate of nearly two yards to six yards per day.

(4) Tasar shirting and sarees are produced at four yards per day measuring only 32".

7 & 8. (1) Reeled mulberry silk imported from China is used for weaving sarees with silk warp and cotton weft. Quantity of silk in each saree is one lb. measuring 48" x 9 yards sold for Rs. 25;

(2) For weaving silk bordered sarees generally 8 ozs. of silk is used for the borders measuring 45" x 9 yards sold for Rs. 7. Kashmere silk is used for solid borders and Chinese for ordinary.

(3) 4 ozs. of reeled mulberry silk is used for dhoties and blouse pieces. 10 yards x 44" price Rs. 9 'khans' 4 yards x 40" priced at Rs. 3-8. Chinese silk is used.

(4) Tasar shirting measuring 11 yards x 32" is woven with 1½ lb. of tasar yarn priced at Rs. 8 per piece. Tasar coating measuring 11 yards x 32" is woven with 1 lb. 12 ozs. of tasar yarn priced at Rs. 13.

Tasar saree measuring 43" x 6 yards is woven with 1 lb. 2 ozs. of tasar yarn priced at Rs. 10 per saree. Tasar dhoties measuring 4½ yards x 44" sold at Rs. 8 per piece with one lb. of yarn.

9. Approximate value of total annual production of all sorts of silk and silk and cotton mixed cloth woven on handlooms is given below:—

	Rs.
(1) 1,500 pieces of half silk and half cotton sarees, each at Rs. 25	37,500
(2) Silk solid bordered sarees 2,500 pieces at Rs. 12 per saree	30,000
(3) Silk bordered sarees 248,600 pieces at an average rate of Rs. 6 per saree	15,11,600
(4) Silk bordered dhoties 12,000 pairs at Rs. 9 a pair	1,08,000
(5) Khans 4 yards x 40" at Rs. 3-8 a piece for 30,500 pieces	96,750
(6) Tasar cloth	19,22,000
	<hr/> 37,05,850 <hr/>

(The above estimate is very rough.)

10. Spun silk is particularly used for manufacturing coatings and shirtings and also for sarees on automatic handlooms. It is also used for borders of sarees and for producing figures in the borders. The use of spun silk is restricted to a few looms only and is therefore small.

11. Silk is usually sold on credit to substantial weavers for a period of one month to six months. There is no definite quantity which is conventionally permitted to be taken on credit. The weaver may take any quantity provided he is a good customer and a substantial man financially owning 4 or 5 looms. Bad debts are few and the value of silk is paid back in cash.

12. The silk merchants who are importers' agents sell direct to weavers and to retail shopkeepers also. The retail shopkeepers have no hold on the silk merchants as they purchase silk from the latter on the same terms as the weavers. The retail shopkeepers in their turn do not sell any silk on credit as they are small traders with limited capital.

13. Indian silk is stronger and less uniform than imported silk while the latter is finer and hard to unwind as readily as Kashmere silk. Malda silk was much inferior to Kashmere and imported silk also but that is not now coming into the Central Provinces. Mysore silk is not used here to a great extent as it is costly and coarse.

The opinion of the merchants also is that Kashmere silk is decidedly superior to every other kind hitherto used in this province. As most of the merchants have entered into forward contracts for clearing certain quantities of Mysore silk they stand to lose a good deal by sale of imported Chinese silk which is much cheaper.

14. There is no regular system of supplying raw material and taking back the finished cloth. The yarn is generally purchased for cash or on credit and cloth is generally sold for cash. In some cases (about 20 per

cent. of weavers) either on account of lack of demand or marketing facilities, weavers, however, do part with their finished goods to the supplier of yarn in payment of the price of yarn *plus* a little profit.

15. Introduction of artificial silk has adversely affected the demand for real silk as the finished cloth made of artificial silk is cheaper and sells more readily. Due to the cheapness of imported mulberry some are gradually giving up artificial silk for the real one.

16. As the weavers sell their cloth for cash the difference between the cost of manufacture as given below and the sale price represents the weaving charges.

(I) A saree measuring 9 yards×45" with 40s cotton warp and weft and 8 ozs. of silk is sold for Rs. 7 to Rs. 8 in the market.

	Rs. A.
Cotton yarn in warp and weft is 1½ lbs. at Rs. 8 per bundle	1 0
Quantity of silk (Chinese) ¼ lb. at Rs. 4-6 per lb.	2 3
Winding and twisting charges	0 8
Dyeing and degumming charges	0 14
Cotton dyeing for silk	0 5
Total	4 14

Sale price being Rs. 7, weaving charges are Rs. 2-2 for two days' labour. Other charges being the same by using Kashmere silk the weaver earns only Re. 1 for two days' labour.

	Rs. A.
Cost of Kashmere silk ¼ lb. at Rs. 7-10 per lb.	3 13
Cost of 1½ lbs. cotton yarn	1 0
40s at Rs. 8 per bundle	0 5
Dyeing of cotton, silk dyeing and other charges	0 14
Total	6 0

Sale price being Rs. 7 the charges for weaving are only Re. 1.

(II) A saree measuring 9 yards×45" woven with 40s cotton warp and 20s weft is sold in the market for Rs. 4-8 to Rs. 5. Cost of manufacture is given below:—

	Rs. A. P.
¼ lb. 40s cotton yarn at Rs. 8 per bundle	0 6 6
1 lb. 20s yarn at Rs. 6-4 per bundle	0 10 0
2 hanks 60s yarn	0 0 9
10 tolas Chinese silk at Rs. 4-6 per lb.	1 1 6
Other expenses, dyeing, etc.	0 8 0
Opening and twisting of silk	0 4 0
	2 14 9
Warping (as the weavers purchase ready-made warps)	0 3 0
Total	3 1 9

The sale rate being Rs. 4-8 the weaver earns Rs. 1-6-3 for two days.

There is no charge for opening Kashmere silk. As the increase in cost of Kashmere silk over Chinese silk for ¼ lb. is As. 9, after deducting charges for opening Chinese silk which is not paid in using Kashmere silk; the

weaving wages are further reduced to As. 13-3 for two days. Only the more well-to-do weavers employ other weavers. The latter are paid at piece rates, e.g., for a saree selling for Rs. 16 to Rs. 20 (half silk and half cotton) the weaver is paid Rs. 3-12 to Rs. 4 per piece.

17. The co-operative societies are helping in some cases by allowing credit facilities to weavers for purchase of raw material. (There are very few co-operative societies of weavers in this province.)

18. The manufactured article is sold to merchants at the place of manufacture who in their turn send the cloth out for sale to other places. The weaver has to sell his cloth to the nearest merchant at any suitable rate as he cannot afford to go out to sell his cloth in the best market. Some substantial weavers stock their cloth for some time and deliver it to the merchants outside the places of manufacture. In such cases the weaver loses his wages for the days he spends in going out and delivering the cloth. No railway freight is paid excepting his own fare, as booking of cloth as luggage or parcel involves careful packing and there is risk of damage during transit. Every weaver is ordinarily able to weave 10 or 12 sarees a month and can spend a week for sale of cloth and purchase of raw material. Additional charges incurred amount to his wages for those days and whatever fare he pays for journey by motor or train. This amounts to Rs. 5 on 10 or 12 sarees. In case of poorer weavers these charges are only Rs. 3 representing his wages for six days at As. 8 per day at an average.

19. The demand for natural silk was more five years ago than to-day but the present figures of demand (a little over 4,000 maunds) have been stationary for the last 2 or 3 years. This would indicate that the demand will not go lower down. The present is the minimum for keeping the handloom weavers fairly employed.

20. Kashmere, Bengal and Mysore are the sources for supply of raw mulberry into the Central Provinces and out of foreign silks imported into India, Chinese silk is the only variety used in the Central Provinces.

Government of Bengal.

Letter No. 2087, dated the 11th April, 1933.

I am directed to refer to your letter No. 51, dated the 20th January, 1933, forwarding a copy of the questionnaire issued by the Tariff Board incorporating some points relating to the handloom industry in connection with its enquiry into the sericultural industry.

2. In reply, I am to forward herewith replies to the questionnaire as far this Government is in a position to frame them.

Enclosure.

2. The weavers get pure raw silk from local reelers and from Mahajans, and spun silk from Mahajans only. They obtain gold thread from Calcutta, Benares and Surat through middlemen. Silk varns are supplied from Malda, Rajshahi and Murshidabad. No price is paid, but the weavers get labour charges as explained in the answer to question No. 14.

3. (i) Through other agencies in Malda and Murshidabad, but weavers do it themselves in Bogra and Bankura.

(ii) Weavers do this themselves in most places.

(iii) Through other agencies in Bogra and by weavers themselves in Malda and Murshidabad.

(iv) Through other agencies in Malda and Murshidabad and sometimes in Bogra.

4. Warp—From good cocoons, with 2 to 4 twists per inch. Weft—Ordinary (Filature and Khamarro both) without twist.

5. Saries, dhoties, lungis, handkerchiefs, suitings, shirtings, gown pieces, etc. These fabrics compare favourably in price and good finish with those of imported goods.

6. Anything from 2 to 11 days.

7. Yarns from 16 to 24 deniers are generally used.

8. *In Malda—*

Red border sarree, 5 yds. \times 45", Rs. 8 to Rs. 14 selling price.

Dhooti, 5 yds. \times 44", Rs. 7-8 to Rs. 9 selling price.

Handkerchief (1 doz.), 22" \times 22", Rs. 6 to Rs. 9 selling price.

Suitings, 10 yds. \times 36", Rs. 15 to Rs. 16 selling price.

Shirtings, 12 yds. \times 45", Rs. 20 to Rs. 26 selling price.

Gown piece, 10 yds. \times 40", Rs. 15 to Rs. 17 selling price.

In Bogra each sari is 15' to 16' in length by 45 inches in breadth—price Rs. 7-8 to Rs. 10. Each suiting is 17' to 18' in length by 44 inches in breadth—price Rs. 10 to Rs. 12.

10. Spun silk is sometimes used for preparing the borders of Matka and Tussar sarree and for suitings, shirtings and chaddars.

11. Weavers get their supplies generally through middlemen on credit, for which they have to pay interest. The amount and period vary according to the capacities of weavers and as dictated by the merchants.

12. There is little or no importation of foreign silk into Bengal.

13. In lustre and durability the Indian silk defies competition but is more costly than imported silk. A great handicap is that owing to imperfect reeling, it is not standardized.

14. Yes, in some cases, the middlemen supply yarns to the weavers for weaving particular kinds of cloth according to their requirement and take back the finished goods on payment of nominal wages. The advance of yarn is treated as credit sale and the value of the yarn so advanced is debited to his account according to the market rate. When the fabric is produced and made over to the Mahajans he pays to the weavers an amount almost equivalent to his labour charges. The Mahajan keeps $6\frac{1}{4}$ per cent. as his own commission from the sale proceeds.

15. Artificial silk has affected the market for real silk, but there is still a demand for the latter. Under present conditions it is difficult to gauge how far the market has thus been affected.

16. *In Malda*—the cost of production of 5 yds. \times 45 inches sarree is:—

	Rs. A. P.		
Raw material	3	12	0
Twisting charges	0	9	0
Winding	0	7	6
Dyeing	0	2	0
Weaving	2	4	0
Warping	0	12	0
Bleaching	0	1	0
Re-reeling	0	7	6
Bobbin winding	0	1	0
Total	8	8	0

The hired weavers are paid per piece and according to the efficiency of work.

In Bogra, saree pieces are paid at the following rates :—

- (1) Rs. 3 to Rs. 4.
- (2) Rs. 2 per seer.
- (4), (5) & (6) Rs. 4 to Rs. 7.

17. In Malda, Co-operative Societies are rendering assistance in various ways. They finance the weavers at the minimum rate of interest and help in selling the products and provide for supervision. They help in the introduction of improved machinery and advice in finding out market, and they foster the habit of thrift. In Bogra, there is no such organisation for silk.

18. In Malda and Murshidabad, the manufactured articles are sold locally and also in Calcutta and other districts of Bengal, Bombay, Madras, Assam, etc. Weavers through mahajan dealers pay freight and packing charges in transporting their goods. Bogra manufactured articles are mostly sold locally.

19. Demand for swadeshi goods has given what is perhaps a temporary stimulus to the demand for natural silk—which was previously definitely on the decline.

20. The source of supply of raw silk is generally from the reelers themselves or from Marwari merchants. The business is to a great extent in the hands of Marwari merchants, who advance money to the reelers to purchase cocoons at different seasons. Only a small part of the total silk produced locally is consumed by the silk weavers of the District—the great bulk of silk is sold outside the district.

His Exalted Highness the Nizam's Government.

Letter No. 2923-P./F. 343—1933, dated the 29th April, 1933, from the Hon'ble the Resident at Hyderabad.

Subject:—HANDLOOM INDUSTRY IN THE HYDERABAD STATE.

With reference to your letter No. 204, dated the 3rd March, 1933, on the above subject, I am directed to forward a typed copy of the Report of Handloom and Dyeing Survey of the Hyderabad State, received from His Exalted Highness the Nizam's Government.

2. They add that the answers to the questionnaire received with your letter referred to above will be sent as soon as they are received from the department concerned.

Enclosure.

Review on the Report of the Survey of Handloom and Dyeing Industries of His Exalted Highness The Nizam's Dominions.

It is unnecessary on my part to emphasise the necessity for and the importance of a survey of handloom and dyeing industries of the Dominions, where cotton is grown in extensive areas and weavers and dyers are found in large numbers among the population. A survey of this kind not only serves the purpose of an excellent and sure guide but also forms a firm basis for the Government to build various schemes intended for the rehabilitation of these very industries, which are the most prominent and next in importance to agriculture.

The Department of Commerce and Industries, realising the urgency and necessity of such a survey, deputed Mr. R. Sahai, Superintendent, Government weaving Factory, as Special Officer from 19th Shehrewer 1339 F., to undertake a detailed survey of these industries, in the Dominions. However, the work of survey was completed by the end of Thir 1340 F., thus running

for ten and a half months. The whole survey was financed by the Industrial Trust Fund. The method adopted for the survey was by the Special Officer visiting all the important districts and taluks in the Dominions and conducting enquiries with the leading merchants, weavers and dyers with the co-operation of taluk authorities.

As the present Census figures were not available at the time of the compilation of the survey it has taken the 1921 figures. Even though there may be an increase in the growth of population, there cannot be any increase in the number of weavers nay, I fear, there may be a considerable fall in their numbers, as the world-wide trade depression has affected textiles most, of all the other industries. (The Census Commissioner seems to have promised to furnish the figures of the present Census by the end of this month, i.e., Dai 41 F)

No doubt, the industrial revolution caused by scientific inventions, with its cheap production by machinery replacing manual labour, has contributed to the steady decline of the once famous handloom industry of this country but more than that, it is the abysmal ignorance and conservatism of the weavers and dyers with their lukewarmness exhibited towards adapting themselves to changing times and tastes, that have brought about a catastrophic disaster on themselves and their exquisite art. But, what struck me most during my various tours in the Dominions, is the extreme indebtedness and utter helplessness of these artisans to the local sowcars and money lenders. The profit obtained by money lending at high rates of interest is large and the weavers and dyers are great borrowers, of necessity, and these sowcars get high rates of interest for their money than the business could ever pay. The interest charged by these sowcars is usurious and the ignorant and poor artisans are literally bled white. The question of questions would be for the Government to find a way to wean these helpless artisans from the clutches of money lenders. Disorganised and scattered as they are, with no inclination to better their lot, in spite of their bitter experience, they have fallen further into evil ways and habits, such as drink, which has ruined their health, stunted their initiative, deteriorated the quality of their products and lowered their standard of commercial honesty. They still plod on their weary way with their antiquated tools and machinery and resign unto Fate their pitiable plight. A combination of all these and similar adverse circumstances have brought about the downfall of themselves and their industry.

The value of imported raw materials, viz., yarn silk, dyes, chemicals, gold lace, etc., alone comes to nearly 9 per cent. of the value of all other imported articles into the Dominions. There is considerable scope for the replacement of most of these imported articles as a large proportion of the yarn and piecegoods could be manufactured in the State, as our factories enjoy the double benefit of a protective duty and freedom from income-tax. Government is not only anxious to encourage the establishment of more cotton mills but also starting of various other factories for manufacturing gold lace, woollen goods, carpets, etc., in congenial centres best suited for them. Further, the Government intends to introduce silk filatures and other allied subsidiary industries, to relieve the hardships of the artisans and to raise them economically.

Now, that the survey is ended, which contains a lot of valuable information, the real work of re-construction should begin. With a clear grasp of the actual condition and state of the weavers and dyers, we would be in a better position to devise ways and means to work up the various schemes already started and to be started, than what it would have been without a survey of this kind. I agree with the Special Officer, that the salvation of the weavers and dyer lies with themselves and they cannot expect everything to be done by the Government alone. In some cases, we found them not co-operating as in the case of the Waranjal Carpet Factory. In other cases we found them stubborn, from moving with the times, as in case of Jalna, to take to fly shuttle looms. I commend the suggestion of the Special Officer for starting of co-operative societies among them and

also of branches of our sales dépôts in their midst to collect their products and send to places where they can be sold. But, the question of financing their supplies is fraught with dangers and difficulties. Most of the artisans are hopelessly indebted that they are past redemption.

The process of improving their lot will be slow and tedious but a start has already been made and with education permeating, we can hope confidently for better results, in the near future.

Government demonstrations.—With a view to assist the weavers and dyers and other artisans of the State, Government established a Cottage Industries Institute with *up-to-date* labour saving machinery and appliances, with a qualified staff for teaching various industries and conducting experiments. This will probably be one of the best ways of attracting the artisans of the State for more organised industrial enterprises. Further, to assist the weavers and dyers in the districts, seven Demonstration parties were established with a qualified weaving Demonstrator and assistants as well as a dyer attached to each party and more Demonstration parties will be created (according to necessity) as soon as the Government scholars return and sufficient artisan assistants (weavers and dyers) are trained in the Cottage Industries Institute. The Special Officer who had the opportunity of studying the conditions of weavers and dyers throughout the Dominions, is put in charge of these Demonstration parties as Superintendent and the Dyeing Expert will be in charge of the demonstration in dyeing and printing. These two officers will be visiting the weaving and dyeing centres and give assistance to the people engaged in these industries.

In addition to these central organisation at Headquarters, Government have already organised a carpet factory at Warangal and a jacquard institute at Paitan and the re-organisation of the Industrial Schools at Nizamabad and Aurangabad is still under consideration of Government.

The Indian Industrial Commission states in its report the following, with reference to certain industrials "The training they offer is of little value when it merely consists as it usually does, in teaching ordinary ways or methods through the agencies of maistries who are paid much smaller wages than a good workman can earn. Something very different is wanted, and this can only be supplied by a head-master or a superintendent, who possesses not only a thorough practical knowledge of modern methods of handicrafts and specialised experience in certain branches, but also the capacity to apply general principles to particular cases. Such a man can teach students to produce much better work than that of the bazar worker with less expenditure of time and energy". Thanks to the Director General and Secretary as well as Department of Commerce and Industries as they have not lost sight of these principles laid down by the Indian Industries Commission and see only qualified men are selected for the posts and even after they are trained in the re-organised institutions, they are further put for specialised practical training in the Cottage Industries Institute before they are sent out to work among artisans.

The practical work undertaken by this Department has been just started on sound basis and the main work, *viz.*, the survey of handloom and dyeing industries has progressed favourably. In this regard, I am indebted to Director General and Secretary and Department of Commerce and Industries for their timely suggestions and to the District authorities who gave all information and assistance to Mr. R. Sahai, the Special Officer. My thanks are also due to the Customs Authorities for their co-operation and to the people engaged in these industries throughout the Dominions who have willingly helped the Special Officer in collecting the necessary information for the Survey of Handloom and Dyeing Industries.

GLOSSARY.

Local technical terms.	Explanation.
Aktara . . .	A lace border made of one gold thread.
Bagdi . . .	A kind of design used in saris.
Bungur Rangrez . . .	A weaver dyer by caste.
Badla . . .	A flat gold or silver thread.
Buttoa . . .	Indian money bag.
Choki . . .	A small appliance for making lace borders.
Cholkhans . . .	A petty garment used by Indian ladies as bodice.
Chutki or Talia . . .	A piece of ornamental cloth woven in big size
Rumal . . .	handkerchief, after knotting and dyeing the yarn according to design required.
Chandni . . .	Printed cloth used as tents.
Chepi . . .	Printer.
Charjama . . .	A cloth used for covering the horse.
Cholkhan Kinor . . .	Borders used in cholkhans.
Chutti business . . .	This is the system by which sowcars or master weavers engage hired weavers paying them wages.
Durry . . .	Thick cotton piece used as bed sheets.
Gulzar or Gugunmal . . .	A particular kind of cloth of diamond design.
Gomi . . .	A kind of design used in sari borders.
Gunji . . .	Sizing.
Gundala . . .	A particular kind of cloth used as head dress.
Gotta putta . . .	Gold or silver lace border.
Jainamaz . . .	Used for prayer (is a piece of Carpet).
Janjera . . .	A kind of lace border of chain-like weave.
Johora . . .	A coarse kind of blanket loosely woven.
Kirmanji dana . . .	Cochinial.
Kharwa . . .	A kind of coarse printed cloth generally used by Lambadi women.
Khurji . . .	Hold-all.
Kalinbaf . . .	Carpet weavers.
Kud . . .	Pitamber.
Kalabutto . . .	Gold thread or lace.
Kuchra Cumble . . .	Coarse blanket.
Lungis . . .	A small piece of cloth used by Mohammadans as lower garment.
Lhenga . . .	A loose garment used by Indian ladies as a lower garment.
Mutka . . .	A kind of silk cloth used as loin cloth by Hindus.
Madi pancha . . .	A small piece of silk cloth used by Hindus as loin cloth while taking their meals or performing their religious ceremony.
Mandil . . .	A kind of long piece of red cloth about 40 to 60 yards long having one side gold border and cross border used as head dress.
Mukesh . . .	Gold or silver wire.
Neelgur . . .	Indigo dyer.
Naki Gotta . . .	A kind of border made out of gold or silver thread in plain weave.
Newad . . .	A cotton putty used for country cots.
Opurna . . .	A piece of cloth used by Hindus as an upper cloth.
Patka . . .	An ornamental cloth used by Arabs round their waist.

Local technical terms.

Explanation.

Pitamber . . .	A silk sari having gold lace in a border and pullo.
Pullo . . .	Cross border.
Pagri . . .	A long piece of cloth of narrow width used as head dress.
Pattal . . .	A grey cotton sari having red, broad, solid border.
Pancha . . .	A small piece of cotton dhoti.
Phaniband . . .	Reed makers.
Purtulla . . .	A thick gold or silver lace border.
Rangrez . . .	Dyer.
Roiphul . . .	A kind of design (somewhat similar to cotton flower) used in sari border.
Ruchbhary . . .	Heald maker.
Shutranji . . .	A thick cotton piece used for covering the floor.
Susi Cloth . . .	A striped cloth with a plain weave.
Tope pullo . . .	Solid cross border.
Tukla . . .	Spindle.
Tapta . . .	A plain weave silk cloth.
Tarkush . . .	Those who draw gold wire.

CHAPTER I.

Introductory.

Realising the importance of the handloom and allied industries in the national economies of the Hyderabad State, it was found desirable to carry out a detailed survey of them, to enable the Department of Industries and Commerce to organise its work with more certainty for their development and restoration. It was becoming increasingly clear that a survey of the kind was not only indispensable but also urgently needed, to alleviate the helpless condition of the numerous artisans forming a large section of the population of the State. No sooner were the services of a qualified Textile Expert secured by the State than an intensive campaign was set on foot, in order to revive and rejuvenate the various cottage industries. As a preliminary step, the Survey was sanctioned, financed by the Industrial Trust Fund amounting to Rs. 8,200.

I was deputed to carry out the survey in letter No. 3764, dated the 3rd July 1930, and I entered upon my duties on 19th Shehrewar 1339 Fasli. Finding that the task could not be discharged effectively and expeditiously without the closest co-operation and active support of the local Revenue Officers, as well as, of other influential non-official gentlemen, they were addressed by the Director, to lend their support and were furnished with questionnaires for eliciting the necessary preliminary information.

I went round all the important weaving and dyeing centres, district by district, my stay being determined by the nature and importance of each individual centre, collecting the fullest information possible, by heart to heart talks with the artisans on the spot, getting to know their difficulties and handicaps and also conferring with the local Government Officers.

I take this opportunity to thank the Director General and Secretary, Director of Commerce and Industries and the Textile Expert, who guided me throughout the Survey by their valuable suggestions and instructions given from time to time, on my various reports. I also thank the various officers and non-officials for all the help rendered in the course of my Survey.

I was also really fortunate in securing sufficient help from the cottage workers, for whose benefit alone the survey was undertaken.

The survey could not be completed as expected at first within the eight months, as there were still seven districts to be finished, remaining at the end of the period. This was partly due to the rainy season setting in, making roads and nallas impassable and partly for want of an assistant, being given to me. Moreover, as the survey progressed, it was found necessary, in the light of experience gained, to get to know not only the statistics giving the number of looms, weavers, dyers of different castes and types in each centre or district, but also the class of articles produced, their quantity, method of finance, their markets, the supply of raw materials, their origin, the weavers' attitude towards modern improvements, their actual condition, etc. Hence, an extension of four months was found necessary and was sanctioned.

It should also be borne in mind that the survey was conducted at a time of abnormal and acute world depression which had affected agriculturists and artisans most.

After dealing with various industries in different chapters, I have devoted one full chapter towards the close, giving my suggestions for the amelioration of the economic condition of the weavers and dyers of the State and for the improvement of the weaving industry in particular. I have added a gazetteer in the last chapter, as a special feature, for the ready reference of the public to note the important industries, for which, the various towns in the Dominions are well noted.

CHAPTER II.

Review of the General condition of Handloom Weaving and allied Industries.

Early History.—From the earliest times India had attained a high state of proficiency in the staple industries of hand spinning and handloom weaving and enjoyed a lucrative and brisk trade in cotton goods with European countries, till about the beginning of the last century, when she began to show signs of decline, as the European countries took to improved mechanical contrivances and began to export their manufactured goods. Thus the market for finer and coarse cloths, was invaded by mill made products which affected the weaving community.

Importance of the Industry.—But in spite of all this, the weaving industry still survives and gives occupation to a large number of people than any other industry, save agriculture. There are as recorded in the census of 1930, 406,881 weavers with 111,998 handlooms (including blanket looms) working in H. E. H. the Nizam's Dominions. A close scrutiny of the statistics Chapter XII, Chart II, pertaining to the number of weavers and various types of handlooms working in the Dominions, will prove that the weaving industry is still maintaining its own.

Its importance may further be realised when it is seen from the Chart I in Chapter XII that the value of the raw materials such as yarn, silk, dyes, gold lace, etc., imported and consumed by handloom weavers is nearly 9 per cent. of the total value of all imports into the Dominions.

Castes engaged.—There are many castes and sub-sections among Hindu weavers and even among Mohammadans there are different classes of weavers. The prominent castes among the Hindu weavers are Shalis, comprising Padma Shalis, Sukhul Shalis, Sudh Shalis and Agan Shalis; Dewangs with four sub-castes Koshti, Hutker, Kurmijhar or Jondra and Kurmishtty; and Khatri and Chohan weavers, who are high class Hindus, skilled in silk weaving. Less prominent are those known as Telanga, Dasri, Tokti, Nilakunti, Nerali, Koli, Malewar or Chummar, Barber and Bhowsar or

Nilgar weavers. The last named are really weaver dyers. Mohamadan weavers are Jolahi, Luddaf and Momins. Amongst these, Luddafs are really cotton carders, rope, tape and newar makers, and they seldom weave cloth. A few Pathans also are engaged in weaving cotton bed carpets but are found in scattered here and there.

Decline of Hand Spinning.—The hand spinning industry received its death blow owing to the influx of the cheap machine made yarn but the handloom weaving industry still survives in the Dominions to a remarkable extent. Although attempts are made to revive hand spinning, they may prove futile as the disadvantages to the weaver using such coarse, uneven yarn on fly shuttle looms with its comparatively higher price, are considerable. It may be safely asserted that no weaver will willingly take up to such uneconomic and unremunerative task, unless forced by exigencies of time, as the price of hand spun yarn is usually 50 per cent. more than that of mill spun yarn, and the labour involved substantially more with no adequate return in the form of additional wages. In fact the survival of the handloom industry and its developments in India as a whole during the last 30 years or so in the face of keen competition from the mills is, as emphasised in the report of the Indian Industrial Commission due to the steadily increasing supplies of mill made yarn.

Competition with the mill product.—In fact, the handloom weaving industry has held its own marvellously, in the competition with the mill industry of India, in spite of the fact that the handloom weaver is plying his trade with all the handicap of crude and antiquated appliances, tools, lack of capital, restricted market, etc. How and why it could survive the fiercest competition against cheap mill made goods, can be seen when we note certain advantages it possessed over the power looms.

Advantages of handloom over power looms.—Handlooms cost very little and are durable and there is little or no annual maintenance charges to be incurred. Moreover, it is beyond the power of power looms to produce infinite variety of designs which the handloom weaver can very well accomplish. Again there is a common belief, which is founded on fact, that handloom products are stronger and more durable when compared with the mill products. Above all, the hereditary skill of the weaver combined with his low standard of living, makes it possible for him to produce the finest garments to suit individual tastes, with the stamp of individuality, at a comparatively low price in the midst of and assisted by his own wife and children. The handloom weaver is helped also by the Indian custom which enjoins on the women-folk, the use of certain specialised types of cloth, to which, they with a religious tenacity, adhere. In the same way, the inherent disadvantages of power looms, especially under Indian conditions, also contribute considerably towards the survival of handlooms. The high cost of installing machinery, its maintenance and repair, the difficulty in getting spare parts from far off foreign countries coupled with the lack of energy and technical skill of illiterate Indian labourers tended to counteract the saving in human labour effected by these modern inventions and scientific improvements.

Economic condition of weavers.—Notwithstanding all these advantages, it cannot be denied, that the tendency towards decline in Hyderabad State is marked, the reasons for which are not far to seek. The economic condition of our handloom weavers is far from satisfactory and despair is writ large on his face, wherever I found him. The majority of the weavers are improvident and spend a good portion of their already low income in drink which accounts for their downfall. They have no organization of their own to improve their lot or to withstand outside onslaughts and they fall easy victims, one by one, by mutual competition and jealousies.

Indebtedness.—But the crux of their whole problem is their indebtedness to the local sowcars and yarn dealers who rapaciously rob them of their legitimate wages and profits, leaving a poor margin for their bare sub-

sistence. It is indeed a taxing problem, how to free them from the trammels of their oppression.

Education among the weavers.—Their economic condition being so bad, it is no wonder that they are devoid of means of even rudimentary education and it is a pity that their children of tender age without knowing the three R's are forced by sheer necessity to assist their parents in their hereditary profession, which undermines their health and stunts their growth. Most reluctantly if at all, they take to improved methods of weaving such as the fly shuttle, etc., as they are too conservative and caste-ridden and also there is a universal fear amongst them that mechanical production would increase their output and bring about over production with its attendant fall in prices and consequent ruin to themselves.

Effects of decline.—The one result of depression and decline is that of their emigration to foreign parts such as Poona, Yewla, Ahmadnagar, where work and better wages could be had and the other is their falling back on agriculture which is already over crowded. Their attitude towards modern improvements is not even one of indifference but of actual opposition, little realising that their salvation rests in that line. They were not able to change with the changing times and they have been left severely alone far behind to bemoan their loss and their decline. Even now, they do not care for making any strenuous attempt to profit by their own past experience or by the salutary advice given by their well-wishers. They continue to cling to their old pit looms and miserable crude tools and implements, depending for their raw materials on credit extended at exorbitant rates by money lenders and yarn dealers, pledging themselves to eternal slavery and drudgery.

Looms and implements.—The looms and implements as already stated are crude and antiquated. Only in few centres fly shuttle slays and dobbies are manufactured such as Gulbarga, Kosgi, Pindyal Jagir, etc. Looms are generally made by local carpenters but reeds and healds are prepared by a special class known as Ruchbhurry and Phunibunds, who are mostly Mohammadans. Rotary drum warping machines for preparing long warps are also in use in few of the centres but peg board warping is in vogue, throughout the Dominions. Design cut cylinder dobbies are also common for making sari borders. Generally sizing is done everywhere in streets using rice and jawari ganji (gruel) by men and women weavers.

Chief centres of the industry.—But with all that, certain places are well known for their special fabrics, such as the Himru, Mishru and Kamkhob of Aurangabad, the pagris or mandils, the saris with ornamental pulloo or cross borders of Paithan, fine grey pugris and sellas of Nander, talia rumals of Warangal, Tussar mutkas of Hasanpurthi, silk saris of Aumure, Tapta cloth of Sangareddi, check saris of mixed quality of Narainpet, etc.

Dyeing industry.—Allied to weaving are the dyeing and printing industries. Alizarine is the most important class of colour used both for dyeing and printing. Basic and direct dyes are used for silk and art silk yarns and garments. Sulphur black and blue are extensively used while natural indigo is not so common and is being replaced by sulphur indigo. Naphthol and Indanthrene are slowly gaining popularity and wider use. The dyes are got from Germany, Switzerland, England, France, and United States of America by Secunderabad agents from whom the local dealers indent. Natural indigo is obtained from Prodathure, Kurnul, Deglur, and Manglgaon.

Wool carpets and Camble industry.—Regarding cambles and woollen pile carpet industry it may be noted that these weavers are also not, in any way better off. The famous carpet industry of Warangal, which had caught the over seas market, only a few decades ago has practically dropped out for want of expert technical advice and better organization. The quality of carpets has deteriorated considerably by using dead wool, fugitive colours and grotesque designs.

CHAPTER III.

Silk Weaving including Artificial Silk, Tussar Silk and Mixed Silk fabrics.

Silk Production.—No silk is produced in the Dominions, except in a few out of the way villages where Tussar cocoons are still collected from the jungles. After a very full inquiry, it has been decided that the climate is not suitable for rearing of mulberry silk worms, while although the State produces nearly half the Castor grown in India, experiments have shown that the main castor area in Nalgonda and Mahbubnagar Districts cannot be the centre of an Eri Silk industry owing to its dryness and the short period during which the crop is on the ground. Some experiments are still being made in the north-west of the State where climatic conditions are more favourable but Hyderabad will never produce this silk in large quantities.

Preparatory processes: Silk Weaving. Each silk weaver possesses a twisting wheel, either single twisting or multi-twisting spindle wheel for twisting silk yarn for their own use. Besides these, some Khatry weavers are dealing in twisted silk. There are about 12 such factories in the Dominion and the total number of twisting wheels may be about 1,500.

The first preparatory process that takes place is the winding off; after which it is twisted. Two women can twist about 84 tolas in 4 or 5 days; for which they are paid Rs. 2-8. And the wages for reeling 84 tolas of silk is Re. 1 to Re. 1-8, according to the fineness of the silk. A woman can reel 84 tolas in 6 days, and the average earning of a woman comes to about As. 3½ per day. For winding 84 tolas of silk Re. 1 is paid. In winding 5 tolas for every one seer, are lost as waste. The next processes are bleaching and dyeing. Before dyeing or weaving, silk is bleached in a mixture of chunam and khar (Dhoby's earth). Country made soap is also used. And there will be a wastage of 15 to 20 tolas for every seer in bleaching. Silk yarn is dyed with vegetable, basic, and direct dyes.

The modern machinery for preparing silk for weaving is practically unknown in Hyderabad though I came across one small plant in Armur. The failure to adopt these inventions which are used freely in Bangalore and other parts of India is one of the causes which have led to the decline of silk weaving in some parts of the State.

The silk weaving industry is confined to a few important places in the Dominion and is a hereditary calling of Khatry weavers. Very few Padma Shalis are engaged in weaving silk. It is observed that the economic condition of silk weavers is better than that of cotton weavers. It is only those who have some capital that make silk fabrics. The classes of goods produced are pitambers, solid bordered saris, cholkhans (bodice cloth), rumals (handkerchiefs), shamlas (turban cloth), tapta cloth, silk susi cloth, mutkas, madi punchas, and chutki silk saris.

(1) *Pitambers.*—This is a pure silk sari with elaborate designs, with gold lace in the borders, the pullo and at times in the body of the cloth. The weaving is particularly skillful. Draw boy harnesses are attached to the looms for making the designs in the pullo and borders. Each weaver has a set of harnesses of different designs, and he prepares only those kinds of cloths. A sari is 8 to 9 yards by 45" to 48". For weaving, a sari with designs and patterns with lace, about 15 days are taken. If the design in the pullo is elaborate and complicated, then a month lapses before a warp is woven. The price of pitambers varies from Rs. 35 to Rs. 175, according to the design and gold lace used.

(2) *Solid bordered saris.*—The borders of these saris are generally dark red or green, having gomi or roiphul designs. Gold lace is also used in borders for making designs. Three shuttles are used in the making of this kind of fabric by two persons sitting at the loom and putting the wefts, two for the borders and one for the body. The peculiarity of the fabric is that the warp and weft ends used for the borders are one and the same colour to give solid or prominent effect to the borders. The body colour

being different from the borders, it requires separate shuttle for weaving. A sari, measuring 8 yards by 45", with silk solid borders can be made in 7 days, working 8 to 9 hours a day. It costs Rs. 15 to Rs. 35 O.S.

(3) *Cholkhans*.—Bodice cloths are generally made in solid borders or in ordinary plain borders. Gold lace is also used to some extent. The width of this fabric varies from 22" to 27". This cloth is also woven in throughout diamond designs, known as gulzar or gugunmal.

(4) *Rumals*.—Silk rumals are made in plain or in check patterns. The side varies from 18" to 27".

(5) *Shamlas*.—These fabrics are made without any borders in plain or in check pattern. A shamla, measuring 6 yards by 36" costs Rs. 8 to Rs. 12, and can be woven in 4 days.

(6) *Tapta Cloth*.—This cloth is of a plain weave, without any design. For ornamenting the cloth one or two threads of gold flat wire (badla) are used in the warp and weft in a check pattern. This kind of fabric is used by Mohamadan ladies, as their bodice cloth. The width varies from 9" to 36". Plain tapta cloth can be used for shirting.

(7) *Silk susi cloth*.—This is a smooth and evenly woven cloth with stripes of all colours in plain. It is generally used for garments by women belonging to various classes of Mussalmans.

(8) *Mutka and Madi-Punchas*.—These cloths are of plain weave, having roiphul or of diamond design borders. The size varies from 3½ to 5 yards by 44" to 45", and cost Rs. 6 to Rs. 9 per piece.

(9) *Silk chutki sari*.—This is a floral cloth of plain weave, woven with dyed yarn. There are only 4 families of Gujerat weavers in Jalna, who are engaged in this art alone. The looms employed in it are not very different from the looms employed in weaving woollen cumbles. Ready dyed yarn in different designs and patterns is mostly obtained from Surat and the finished cloth is also sent there. It is said that this cloth is exported to Java; at present there is one dealer by name Murillall Ruttan Chand in Surat, who is dealing in this cloth. The saris are generally 5 yards in length and 50" in width, and prices range from Rs. 50 to Rs. 75 each. About 50 tolas of silk are required for one sari and is woven in a month. There is only one man by name Kishanlall in Jalna, who can dye yarn for this kind of cloth. The process of dyeing is as follows:—

The warp and weft of four saris are knotted and dyed at a time. The bleached silk is spread between two rollers and marked according to the design and pattern, and the marked places are tied with a thread. Then the whole yarn is dyed with red colour and dried; when it is sufficiently dry, the knots are removed and the dyed portions are knotted and again dyed with yellow colour. The same process is repeated for every colour used. Complete dyeing takes about a month and the dyeing charges are Rs. 28.

Silk of the following descriptions is in use here:—

1. Manchao Nos. 2, 3, and 4.
2. Hoyang Nos. 2, 3 and 4.
3. Santan Nos. 3, 4, and 5.
4. Steam white.
5. Cobin.
6. Bangalore silk (Chickbelapur, Siddalgatta, Kollegal and Iraqure).
7. Bengal (Beldanga and Jangipur).

The silk used for the warp is twisted, while the wefts are doubled and the gumming is done on the looms themselves as weaving proceeds.

The manufacturing places for the above mentioned fabrics are Hyderabad, Secunderabad, Kosgi, Gudmatkal, Kodangal in Gulbarga District; Ghat and Gudwal in Raichur District; Warangal; Nalgonda, Narainpur, Sooriapet in Nalgonda District; Amangal, Narainpet and Wattam in Mahbubnagar District; Nirmal in Adilabad District; Chundoor Surfikhas, Busmatnagar

and Sainpet in Parbhani District; Siddipet, Sangareddy, Jogipet, Ismailkhanpet, Alladurg, Indole, Sadasivapet, Tekmal, Ramampet in Medak District; Paithan and Jaina in Aurangabad District. Of these most important places are Sangareddy, Siddipet, Narainpet, Amangal, Kundangal, Koratla, Armur, and Ramampet. There was once a great demand for hand made silk fabrics in the State; but since the importation of cheaper and finer silk and artificial silk cloth, there is a considerable reduction in the demand for goods manufactured out of pure silk. At present 4,183 looms are engaged in weaving pure silk fabrics, but the number is decreasing day by day.

Spun and Waste Silk Fabrics.—The fabrics consists of coating and shirting cloth and are chiefly woven in factories on fly shuttle looms. The principal counts of yarn used are 2/36s, 2/40s waste silk, 2/210s, 2/75s, 2/140s spun silk and 2/75s and 2/210s tussa silk. Cardonnet silk yarn is also used to some extent. These goods are manufactured in Hyderabad, Secunderabad, Warangal, Aurangabad, and Bhair and consumed locally.

Tussar Weaving.—Tussar weaving industry is confined to Hasanpurty in Warangal District, Mahadeopur in Karimnagar District, Chinnoor in Adilabad District, and Hakimpet in Mahbubnagar District, and has been in existence since a long time. The tussar cocoons are obtained from Mahadeopur, Chinnoor, and from the neighbouring villages of Mahbubnagar. Besides they are imported from Bhopulpalum in Madras Presidency and Chabosa District, Behar. Saris and Mutkas are mainly woven in Hasanpurty and shamlas are woven in other places mentioned above. There are about 164 throw shuttle looms engaged in this class of work.

Tussar saris and punchas (mutkas) are mostly used by orthodox Hindus, during their religious and other ceremonies. Therefore, the cloth finds a ready market. The places are often visited by outside dealers. Local sowcars also do a great deal of business in these fabrics. It is exported to Bezwada and also consumed in the State.

Reeling and warping of tussar silk is generally done by women. The operation of reeling tussar silk is very primitive and requires modification by introducing small reeling machines. A woman can reel four tolas of silk by working 5 to 6 hours a day. They generally do this work after performing their household duties.

Tussar silk cannot be bleached, but is washed in cold water in the ordinary way before dyeing in order to soften it. The process of dyeing is carried on by weavers themselves. Tussar silk for the body of pitamber is dyed with taiso or plas flower, but for borders with kirmanji dana (cochineal). Taiso flower is obtained from the neighbouring jungles. Though the colour is not attractive, it is fairly fast. The tussar yarn is not twisted but sized with jawari and rice gunji.

The looms used for weaving this fabric are of the old type, as the weavers believe that fly shuttle looms are unsuited for tussar yarn. A piece, measuring 9 yards by 44" (contains one sari of 6 yards and one puncha of 3 yards) costs Rs. 7 to Rs. 10 according to the texture. An operator can weave a piece of the above mentioned size in 3 days, working 9 hours a day. It may be roughly stated that tussar cocoons to the value of Rs. 80,000 are consumed yearly and the fabrics to the value of Rs. 1,20,000 are produced annually in these places.

Mixed fabrics with pure silk and cotton yarn.—Mixed fabrics may be divided into two classes, viz., (1) admixture of pure silk and cotton; (2) admixture of artificial silk and cotton.

The best quality of this cloth consists of saris and cholkhans. The silk and cotton being combined both in warp and weft in check pattern having different designs in borders of which the Ikul design is most common. Counts 40s and 60s are generally used. These fabrics have a special reputation and pass in the market as Ikul saris.

A sari, measuring 18 cubits long and 45" wide, of ordinary silk cross border with 4" wide silk borders cost Rs. 8 to Rs. 9 according to the pattern

and silk used. A sari of the above mentioned size with ordinary silk borders of Ikul design and having a solid cross border costs Rs. 11 to Rs. 18. The time taken in weaving varies from 6 to 8 days, according to the quality of the cloth. Ikul in British India and Narainpet in the Nizam's Dominion are the two biggest exporting centres, with a large number of merchants dealing in the export of these cloths.

It may roughly be stated that about 50 per cent. of the total production of this cloth is exported and consumed in Poona, Bagalkot, Ahmednagar, Satara, Sholapur, etc., while the remaining 50 per cent. is consumed in the Dominion. The important places for the production of these varieties of cloth are Manvi, Maski, Manedhall, Tawargira, Dotyhall, Hanumsagar, Mudgal, Kopba, Kinhal, and Gudmutkal in Raichur District. (The weaving industry of the above mentioned places is entirely controlled by Ikul merchants. The raw material is supplied and the finished goods are collected by them. The fabrics are manufactured according to their requirements.)

Shahpur, Rangumpet and Timapur are the places in Gulbarga District, where mixed fabrics are woven. Narainpet in Mahbubnagar District is another important place noted for its production of check saris of mixed variety.

Mashru is another variety of mixed fabric. It is woven with mercerised warp and silk weft in satin weave either striped or spotted. This cloth is chiefly used by Muslim and Hindu ladies for their full trousers and Lungis respectively. Aurangabad is the only place noted for this cloth.

Mixed fabrics with artificial silk and cotton yarn.—Artificial silk has lately come into use and is preferred to silk owing to its cheapness and lustre. It is utilised chiefly for the production of cheap shamlas, cholkhan saris and check rumals. On a small scale tapta cloth is also made with artificial weft. The warp is generally silk. The imports are from France, England, Switzerland and Italy. In Gulbarga, a special kind of cloth is made known as Gulzar or Gugunmal with 2/64s mercerised warp and artificial silk in weft. The other weaving centres, where artificial silk is used are Warangal, Hasanpurty, Hyderabad, Secunderabad, Sirpur and Mudgal.

The most famous cloth of Aurangabad also, i.e., Him now-a-days is usually an admixture of mercerised yarn and artificial silk (twisted silk is also used to some extent). Formerly this cloth was made of cotton warp and weft figured with silk yarn, but now artificial silk is mostly employed for ornamentation of the cloth. This cloth is generally used for sherwanis and waist coats.

The looms employed for weaving this cloth are of throw shuttle type, fitted with draw-boy harnesses. Two men are required to weave the cloth. Besides this, the costly cloth of Aurangabad known as Kumkhaab is woven with silk in various designs, and gold lace is used for ornamentation of the cloth, on such a lavish scale, that the cost of the lace employed in the fabric is much more than that of the silk used. The weaving is particularly skillful and the lace is woven in such a way as to appear on one side only. At one time these fabrics were largely patronised by the aristocracy and well to do people, but at present, they are purchased on marriage occasions and are made for orders.

There are 7 factories in Nawabpura, owned by capitalists, where 60 country looms are employed in manufacturing the above mentioned fabrics.

A healthy sign of the times is furnished by the establishment of an electric power factory at Nawabpura in Aurangabad town by Messrs. Abdul Majid Khan, Mohammad Khan where Himru and Mashru cloths are manufactured on power looms, fitted with dobbies and jacquard machines. The factory is equipped with 7 power looms, 3 automatic hand power looms, 2 jacquard machines of 400 needles each, 2 dobbies of 18 levers, one sectional warping machine, one beaming machine and one pirn winding machine. This factory demonstrates, what a well organised system could do for the development of the industry.

CHAPTER III-B.

Nakey gotta, fancy silver and gold laces and cholkhan borders.

This is a minor cottage industry, followed by a few Khutry and Padma Shali weavers in Hyderabad, Secunderabad, Aurangabad, Siddipet and Chundoor.

The industry may be divided into 4 classes, viz., (1) Nakey gotta, (2) fancy gold and silver laces, known as Iktara and Junjera, (3) gold and silver purtulla, and (4) cholkhan borders, with or without gold thread.

(1) Nakey gotta is made out of gold or silver, with badla (flat wire) warp, and silk thread in weft and is made of in plain weave.

(2) Fancy gold or silver laces are made out of gold or silver thread, silk in warp, with silver or gold thread or silk in weft and are made in different designs and patterns.

(3) Purulla is made out of twisted cotton warp, with gold or silver thread in weft, in different designs and patterns.

(4) Cholkhan borders are made out of silk both in warp and weft, gold thread is also used for ornamenting in different designs and patterns. The size varies from $\frac{1}{4}$ " to 4" in width.

The implements used for manufacturing the above-mentioned goods are very simple and are of a primitive type known as choki. At present about 500 such chokis are at work in the above-mentioned places. The raw materials required for weaving these goods are silk thread, cotton twisted thread, badla and kalabutto, supplied by the merchants dealing in the business. The finished goods are also taken back by them paying the wages, which vary from Rs. 9 to Rs. 12 per 100 tolas, according to the quality of material and design.

The industry is not in a flourishing condition. There has undoubtedly been a great decline in this trade, during the past few years. The chief cause is that the fashion and taste of Indian women have changed greatly in recent years. Besides this, there is competition from the imported fancy laces of new patterns and designs, while the borders and laces manufactured here are of the same old style, which had been in existence some 15 years back. If new designs and patterns are introduced, there may be an increased demand of local made borders and laces.

Gold Thread Industry.—Gold thread was once manufactured in Paithan and Aurangabad on a large scale, and was largely used in the more costly kinds of fabrics, such as Paithan pagris, saris, kamkhob, and in gotta putta. But since the introduction of cheap Surat, German, and French kalabutto, this industry has received a set back. However, there are 10 families in Paithan and one in Aurangabad still engaged in this industry. They are manufacturing gold thread and using their own product in pagris and in manufacturing gotta putta. This process of manufacturing gold thread is as follows:—

Forty tolas of silver are beaten into a bar of 9 inches long and about $2\frac{1}{4}$ in diameter and is covered with a thin plate of gold. These bars are hammered still thinner and then drawn through a series of holes of varying sizes, first through bigger holes, then drawing them through smaller and smaller ones until at last the thickness of the wire is reduced to $1/28$ " or even less according to the quality. This work is done by a class of goldsmiths known as Lugdekar.

Then the wire is given to other workers, called Tarkuhs. There the wire is still drawn between two rollers revolving in opposite direction. One end of the wire is taken through an eye of a disc (placed in the centre) and fixed to the other roller. Then the roller is turned, until the whole length of the wire passes through the eye. This process is repeated many a time until the required length is obtained. The wages for 5 tolas of wire are Re. 1 and the time taken is 8 days. After being drawn, the wire is flattened by another class of workers called Chuptekar. 10 to 12 wires

are flattened at a time. Twenty-one tolas of gold wire can be flattened in 3 days and Rs. 2-8 is paid. Flat wire is called badla. Then badla is twisted over silk thread by a class of workers, known as Batnewalas and the finished product is known as kalabutto. Drawing and flattening work is done in Hyderabad also. But the raw material, i.e., gold wire (mukesh) is imported from Surat.

Gold Thread factory at Armur, Nizamabad District.—A Khatri sowcar by name Pintoji Datatria has tried to adopt more up-to-date methods of manufacturing gold thread with improved appliances, by starting a gold lace factory at Armur. The factory is equipped with a crude oil engine of 12 H.P., one dynamo, two silk twisting machines, of 40 spindles each (both the sides), 2 lace twisting machines and 2 flattening machines of small size. But the raw material, i.e., thin silver wire is imported from Bombay and Benares. He has devised a small gilding machine in a crude way for gold plating the silver thread.

In my opinion if such machines worked by hand be introduced in Paithan, there will be an improvement over the existing system and the industry which at present is in dyeing condition will revive.

CHAPTER IV.

Cotton Weaving (coarse and fine and origin of raw materials).

Cotton weaving (coarse and fine).—The weaving of cotton goods is carried on in every part of the State, without any exception. The chief fabrics manufactured here are given below :—

FINE COTTON FABRICS.—There are very few places in this State, where the cotton cloth of fine quality is woven and that is even in a limited quantity. The following are the usual qualities made :—

(1) Solid bordered saris and panchas, having grey body of 40s or 60s yarn, with silk solid borders. Gold lace is also used to some extent in border designs. Saris, each measuring 8 yds. by 45 inches, cost O. S. Rs. 14 to Rs. 18 and panchas, measuring 4 yds. by 44 inches, cost O. S. Rs. 8 to Rs. 13. The chief centres of manufacture are Nalgonda and Devarkonda (District Nalgonda), Siddipet, Sheokaranpet, Ramainpet, Jogipet (District Medak), Ramareddypet (District Nizamabad), and Koratla (District Karimnagar).

(2) Plain body coloured saris of 40s or 60s yarn, with silk or artificial silk borders of different designs, measuring 7 yds. by 45" cost O. S. Rs. 7-8 to Rs. 9. They are manufactured in Chiryal and Alir (District Nalgonda).

(3) Check saris of 60s yarn, having silk borders of different designs, with silk pullos. A piece measuring 7 yds. by 45" costs O. S. Rs. 8 to Rs. 9 and is woven in Manvi (District Raichur).

(4) Red pagris, with ornamental gold lace pullo (cross border) known as mandil, are woven in Paithan (District Aurangabad). These pagris have got a demand during the marriage season among the peasants. The yarn used is of 40, 60 and 80 counts. The higher counts of 100s and 120s are also used to some extent. In order to lower the price, Surat lace is mostly used instead of Paithan lace. The length of these pagris depends on the fineness of the yarn used. Generally, it ranges from 15 yds. to 25 yds. and width ranges from 12" to 18". The price varies from O. S. Rs. 10 to Rs. 30 per piece (the price depends on the lace used in cross borders and on design). These pagris were mainly exported to Guzerat and the trade has practically been killed by the vogue of the Gandhi cap which costs little, is cool to wear and easy to keep clean, and so is popular apart from its nationalist associations. Fine cotton saris of 60s or 80s yarn, having ornamental gold lace borders, were also made in Paithan. But now they can be made on orders alone. The fabrics being costly were generally purchased by well-to-do people; but there is very little or practically no demand now-a-days.

(5) *Grey pagris and shamlas.*—These fabrics are made at Nander and Bhir and had a great demand on marriage occasions. They are known as gundalas. The yarn of 40s or 60s is used; gold lace is also used in pullo. The length of a piece varies from 20 yds. to 60 yds. and the width varies from 9 inches to 12 inches and costs O. S. Rs. 4 to Rs. 10. But there is not much demand for these fabrics now-a-days.

The above-mentioned fabrics, except red pagris of Paithan, are sold locally. But red pagris of Paithan still find their market outside the Dominion, such as Poona, Ahmedabad etc., Momin women have largely taken to weaving pagris at their homes (generally cheap pagris) as men engaged in weaving such pagris do not often get adequate wages.

Coarse cotton fabrics made out of mill yarn.—Coarse cotton cloth is the most common of all and is produced throughout the Dominion. It consists of the following kinds:—

(1) Check and striped saris, having gomi, bugdi, roiphul and chashma designs in borders. The number of counts used are 12s, 18s, 20s, 24s, 30s, 32s, and 40s, while 2/84s and 2/64s mercerised, 2/210s spun silk and pure silk are mostly used in borders. Artificial silk of 150 deniers is also used in borders and pullos to a limited extent. The length of saris varies from 7 yds. to 9 yds. by 44" to 46". The cost varies from O. S. Rs. 2-4 to Rs. 6-8 according to the counts of yarn used and pattern.

(2) Grey panchas (dhotis), having cotton broad borders of roiphul or of plain stripe patterns and of small borders are woven from 12s to 24s yarn. The length of a dhoti varies from 3½ yds. to 5 yds. by 32" to 42". The price of a piece varies from Re. 1 to Rs. 2.

(3) Plain striped or check cholkhans (bodice cloth) with broad borders of chashma, roiphul and gomi designs are woven from 10s to 40s yarn. The width varies from 18" to 22". The most common colours used in saris and cholkhans are red, yellow, green, blue and black. The above mentioned cloths are generally in demand as they are worn by all classes of people. In recent years, however, the trade has suffered a setback owing to the import of cheap mill made goods. Yet there is an active trade of these fabrics in the marriage season.

(4) Grey khaddar cloth is woven out of 10s to 18s mill yarn, by less skilled weavers, specially by low caste Hindus. A piece generally measures from 10 yds. to 20 yds. by 36" and the price varies from 2½ annas to 3 annas per yard.

(5) Susi cloth is a striped plain cloth generally used by Mohammadan women for their pyjamas or bodice and by Lambadi women for their lhengas and is woven out of 10s to 20s yarn. Red and black colours are generally observed in this cloth and is mainly woven by Momins. Very few Padma shali weavers are engaged in weaving this kind of fabric.

(6) Grey pagris are mainly woven by Momins, mostly in Maratwadi districts and at very few places in Telengana and Carnatic districts. The Momins of Maratwadi districts are said to be hereditary pagri weavers. This kind of cloth is woven on country looms of small size. Their women observe purdah and have largely taken to weaving pagris in their leisure time. The yarn used for these fabrics is a mill waste sized warp of 18s to 32s, available in the local markets. These pagris generally find sale in marriage season, as during the marriage ceremony of agriculturists, it is usual for all the relations to present at least one pagri to the bridegroom but this custom is also falling off now-a-days. The pagri measuring 60 cubits by 6" to 9" having imitation lace in pullo costs O. S. Rs. 1-4.

(7) Red solid bordered saris and dhotis having grey body known as pattals are made in two qualities:—(1) with silk solid borders of finer variety using 32s to 40s yarn in body, (2) and of cotton solid borders of cheap quality using 20s to 24s yarn. These fabrics are sold in the marriage season alone and are woven at few places in Telengana or Carnatic districts.

(8) Silk or cotton solid bordered saris having coloured body are mainly woven in Nalgonda, Medak and Karimnagar districts; gold lace is also used to some extent, for making designs in borders. The counts of yarns used are

32s to 40s. The cost of such saris varies from O. S. Rs. 6-8 to Rs. 18, according to the count of yarn used and gold lace used. The time taken to weave such a sari with the assistance of a boy is generally 8 to 9 days, working 8 hours a day.

(9) *Check rumals*.—This cloth is woven more or less throughout the Dominion, by different castes of weavers. Count 20s to 30s yarn are generally used; yarn of higher counts upto 40s is also used to certain extent. A piece measuring 9 yards by 30" costs O. S. Rs. 4 to Rs. 8. The time taken to weave a piece is about 2½ days on country looms and 1½ days on fly shuttle looms.

(10) *Churki sari and rumals* known as *talia rumals* are mostly woven in Telengana and Carnatic districts. Warangal is noted for these fabrics; for weaving, 20s to 40s mill yarn is used. Yarn used in warp and weft is knotted, according to the design to be woven and dyed generally in two shades, in black and red. Red colour is dyed in alizarine and black with sulphur black. Other colours such as yellow and orange are seldom used. For these colours, ready dyed yarn is used. It is knotted and dyed as grey yarn leaving orange or yellow spots according to the pattern. A piece of *talia rumal* (for male) measuring 20 cubits by 42" (contains 8 rumals) can be woven in 4 days on fly shuttle loom and in 5 days on throw shuttle loom. A piece of *talia sari* (for females) measuring 24 cubits by 44" (contains 2 saris) can be woven in 5 days on fly shuttle loom and in 6 days with throw shuttle loom. The average production in a day is about 4½ cubits and one anna three pies per cubit is the usual wage given for weaving. These rumals have a reputation of their own from a very long time and are in great demand. They are very popular among rich and poor alike.

(11) *Lungis and Patkas*: (a) *PATKAS*.—This cloth is mainly used by the Arabs, round their waist. It is made of different colours in check and striped mat designs. 24s and 30s yarn are used and are woven in Hyderabad and Bhongir Taluk.

(b) *LUNGIS*.—This cloth is generally used by Mohammadans and specially by the Arabs as loin cloths. The number of counts used for weaving is 20s and 30s. The lungis are known by different names, according to the designs and patterns, such as follows:—

- (a) *Hamuran*, woven in plain indigo body with two or three ends of yellow and red stripes.
- (b) *Chendra, kulla*, with plain indigo ground.
- (c) *Neyaikhtiara*, striped cloth without any design.
- (d) *Sangareddy*, with white and indigo blue ground in check pattern.
- (e) *Mamoli*, woven in check pattern, having 20 ends of indigo blue and two ends of white yarn.
- (f) *Adden black*, woven in broad stripes with diamond designs having indigo blue ground.
- (g) *Adden papia*, woven in broad stripes of yellow with diamond designs.
- (h) Indigo is the most popular colour used for the ground of lungi cloth.

These fabrics are exported by the Arab merchants to Kathiawar, Arabia and Java. It may roughly be estimated that lungis and patkas to the value of Rs. 30,000 annually are exported outside the Dominions by the following Arab merchants:—

- (i) Mohamad-Bin Ali, Lal Bazar, Hyderabad.
- (ii) Ahamad Bin Aood.
- (iii) Mohamad-Bin Momin, Moti Bazar, Hyderabad.
- (iv) Jamadar Saleh, Usuf Bazar, Salar Jung Buds. Hyd.
- (v) Mohamad Bin Sayed, Old Palace, Hyderabad.

This fabric is woven in Atrāfibalda, Warangal, Nalgonda and Gulbarga districts. Of these Madoor and Kodangal in Gulbarga District are noted for their lungis.

(12) *Grey square rumals*.—This fabric is manufactured in Sirpur Tal. and Shurki (Sarfikhas) on fly shuttle looms. About 123 looms are engaged in the

weaving of square rumals. The width of the looms used varies from 50" to 72". The number of yarn used is 24s, 32s and 40s. (These rumals are used as headdress.)

(13) Chadars, striped shirting and towels and other miscellaneous varieties of cloth are manufactured at few places scattered all over the Dominions such as Sirnur, Serfikhaz Taluka Shirki, Karimnagar, Nander, Bhir, Manwi and Alampur, District Raichur. Hyderabad, Secunderabad, Warangal, etc., and are woven on both fly shuttle looms and on old type of looms but the trade possesses no special features. The finished goods are sold locally or in the surrounding villages. Counts of yarn used in weaving the above-mentioned fabrics ranging from 24s to 40s, 2/84s and 2/64s mercised is used also to some extent.

The economics of weaving of different cotton fabrics, and weaver's income.—

(1) The profit in weaving a pair of dhotis of 20s yarn is as follows:—

	O. S. Rs. A. P.
20s. grey yarn, 5 knots	1 8 0
Warping	0 2 0
Sizing charges	0 2 0
Dyeing (for border yarn)	0 1 6
Weaving charges	0 7 0
Pirn winding	0 2 0
	<hr/>
Cost price	2 6 6
Selling price	3 6 0
	<hr/>
Profit	0 15 6

Annas 15 go to the middleman or master-weaver.

(2) The profit in weaving a piece of coloured check sari having silk borders and silk pullo measuring 16 cubits by 45" is given below:—

	B. G. Rs. A. P.
60s grey yarn, 5 knots, at B. G. Rs. 16 per bundle	1 5 0
Dyeing charges at Rs. 6 per bundle	0 8 0
Twisted and dyed silk 8 tolas at Rs. 27 per tukri of 120 tolas (for borders and pullo)	1 12 0
Preliminary processes	1 2 0
Weaving charges	2 8 0
	<hr/>
Cost price	7 3 0
Selling price	9 0 0
	<hr/>
Profit	1 13 0

Rs. 1-13 goes to the middleman or master-weaver.

(3) The profit in weaving a sari of 20s yarn, measuring 7½ yds. by 44" woven by an independent weaver is as follows:—

	B. G. Rs. A. P.
20s grey yarn at Rs. 4-12 per bundle of three knots	0 13 0
Dyeing charges	0 12 0
2/64s mercerised yarn for borders	0 2 6
	<hr/>
Cost price	1 11 6
Selling price	2 14 0
	<hr/>
Profit	1 2 6

Weaving and preliminary processes are not taken into account, as they are done by family members of a weaver.

An ordinary sari which in normal days costs, Rs. 2-2 now costs Rs. 1-11-6 only; but this cloth would formerly sell for Rs. 4 to Rs. 4-2 and now sells for Rs. 2-14 to Rs. 3 only. The result is that a weaver, who earned Rs. 2 cannot now earn more than Rs. 1-4. Therefore, the average earning of a weaver comes to about five annas a day, as it takes him at least $3\frac{1}{2}$ days for completing a 15 cubits cloth; $1\frac{1}{2}$ days for setting up the work and 2 days to weave it.

(4) The profit of weaving a silk solid bordered and solid pullo sari of 60s yarn, measuring 9 yds. by 50" is given below :—

	Rs.	A.	P.
60s yarn, 4 knots, ready dyed and warped	2	9	7
10 tolas of silk at $3\frac{1}{2}$ tolas per rupee	3	2	0
Sizing charges	0	5	0
Weaving charges	4	8	0
	<hr/>		
Cost price	10	8	7
Selling price	12	8	0
	<hr/>		
Profit	2	0	7

(5) The following calculation will show the monthly income of an ordinary weaver :—

	Rs.	A.	
Each weaver consumes at least 2 bundles of 20s yarn in a month at Rs. 4-12 each	9	8	
Dye stuffs and oil, etc.—Preliminary operations are done by family members and are not taken into account.			Prepare 8 pieces of 9 yds. by 44" at Rs. 2-14 a piece, valued Rs. 23.
Income of a weaver per month	13	0	
	<hr/>		
Total	22	8	

Coarse cloth made out of hand spun yarn.—This fabric consists of khaddar cloth and dhotis. It is stated that even prior to the Gandhi movement for reviving this industry, there was a fair demand for khaddar cloth in this State, as the cloth being warmer and of a stronger texture, is mostly preferred by agriculturists and labouring classes. But the weavers engaged in weaving these fabrics are either poor Mohammadans or low caste Hindus such as Kolli or Chammar. They are unskilled weavers. Very few other castes of hereditary weavers are engaged in weaving khaddar cloth of hand spun yarn, as the weaving of that cloth is not paying.

Most of the yarn used in weaving is supplied by cultivators to make cloth for their home use. The weaving wages for a piece of cloth, measuring 10 to 12 cubits by 36" to 44" is Re. 1-4 to Rs. 2. The time taken in warping, sizing and weaving is 5 to 6 days. Therefore, the average earning for a weaver is four annas a day.

I am told that at present, there is a good demand from outside, as most of the khaddar producing centres are visited by dealers from Bezwada and Hyderabad to make their purchases. The manufacture of this cloth is carried on more or less in the districts of Nalgonda, Warangal, Karimnagar Adilabad, Atrabbalda and Medak. Of these Medak, Nalgonda, Karimnagar and Warangal are the chief districts where this class of work is chiefly carried on.

ORIGIN OF RAW MATERIALS.

Buying the raw materials.—Generally the handloom weavers of the rural areas purchase their yarn from petty shopkeepers who are found in every village throughout the Dominions and these petty shopkeepers in their turn depend upon the district markets for their own supplies. Similarly these merchants get their requirements either direct from the mills or from the distributing centres like Secunderabad, Siddipet, Basmatnagar, Manvat, Nander, Warangal and Gulbarga.

More than 75 per cent. of the yarn consumed by handloom weavers in the Dominions are of 3s, 6s, 10s, 16s, 18s, 20s, 24s, 28s and 30s and is used for the manufacture of coarse fabrics, such as khaddar cloth, panchas, saris, pagris and shamlas. About 20 per cent. of the yarns consumed by the weavers are from 40s to 60s. The rest 5 per cent. is from 80s to 120s and is generally used in manufacturing mandil and pagris in Nander and Paithan respectively. Coarse and medium counts of yarn consumed here is mostly the production of local mills and imported from Sholapur, Bombay and Barsi mills, while 60s and 80s yarn used here is from England and from Japan, but lately this yarn has shown a considerable decrease.

Mercerised yarn from Japan is also used to a large extent in sari borders. Spun silk which comes from Italy and Japan is also used in sari borders. Pure silk, which is being used in large quantity comes from China, Bangalore and Calcutta (*vide* Chapter XII, Chart III).

Artificial Silk.—Artificial silk is also making its way now-a-days, and is used in Gulbarga, Hyderabad, Warangal, Bhir and in Aurangabad districts. It is from Switzerland, Italy and England that pure silk is got. A few important centres such as Secunderabad, Gulbarga, Narainpet, Siddipet, Jalna, Armur have some silk dealers who get their supply direct from Bombay, Bangalore and Calcutta and after twisting and dyeing sell it to weavers by hawking.

Dyes and Chemicals.—As regards the dyeing and printing industry, the dyes and chemicals are mostly imported from Bombay. Alizarine is the most important colour used for dyeing yarn and printing cloths. Basic and direct dyes are mostly used for dyeing silk, artificial silk yarns and garments. Sulphur black and blue is also used to a large extent, while natural indigo is not used much; it is replaced by sulphur indigo. Naphthol and indanthrine colours are also getting popular among them.

The above-mentioned dyes are from Germany, Switzerland, England, France and U. S. A. (*vide* Chapter XII, Chart III). There are representatives of several colour manufacturers' firms in Secunderabad, who supply the necessary dyes. But natural indigo is obtained from Proddatore, Kurnool, Diglore, Manjeygaon. In small centres, the village yarn dealers keep a small stock of the colours that are more largely used by local dyers.

Wool.—As regards raw wool for making cumbles and woollen pile carpets, the wool consumed is of two kinds *i.e.*, live and dead wool. Live wool is obtained by spearing the wool from the sheep twice a year, while dead wool is obtained from tanneries (*vide* Chapter XII, Chart III).

Yarn Market.—The yarn market is entirely in the hands of Marwaris, or of few Mohamadan capitalists. Their practice is to make their purchases of Indian or foreign mill yarn either from Bombay agents or direct from the Indian mills, whichever happens to be cheaper for the moment. They do not care for the colour or the quality of the yarn. And the weaver has to select his yarn from their stock alone. He too seldom goes for the quality but mostly cares for the price.

If the import of yarn could be stopped or decreased by starting some more spinning mills capable of producing the required counts of yarns to the handloom workers, it may be a profitable concern as about Rs. 94,77,000 worth of yarn alone is imported from outside, out of a total import of Rs. 1,27,73,000 which includes silk, dyes, gold lace etc., (*vide* Chapter XII, Chart I).

Yarn produced in mills in His Exalted Highness the Nizam's Dominions.—At present there are five cotton spinning and weaving mills in His Exalted Highness the Nizam's Dominions of which four are actually at work. Two are

at Hyderabad, namely Dewan Bahadur Ramgopal Mills and the Hyderabad Spinning and Weaving Mills. Of these, the latter is closed down for some time and re-started now. The former possesses about 16,376 spindles in use producing yarn of 18s to 32s. One at Gulbarga, named the Mahaboob Shahi Mills possesses 28,864 spindles in use, producing yarn of 2s to 40s count. One at Aurangabad, named the Aurangabad Mills possesses 17,476 spindles in use, producing yarn of 6s to 30s counts. One at Nander, named Osman Shahi Mills possesses 16,552 spindles in use producing yarn of 14s to 20½s counts.

Total quantity of yarn manufactured in these mills is 7,996,502 lbs. of which 3,986,279 lbs. are utilised for their own use and the remaining 4,010,223 lbs. are sold in the Dominions and consumed by handloom weavers (*vide* Chapter XII, Chart 6).

Hand spun yarn.—Hand spinning in conjunction with hand weaving formed at one time the chief cottage industry in almost all the districts of His Exalted Highness the Nizam's Dominions and was followed for the most part by women of different castes, as a main occupation or a subsidiary one. But since the introduction of mill spun yarn (which is stronger and more scientifically spun) the hand spinning industry has fallen into disuse as a popular occupation, though in some districts, the production of coarse threads still survived and retained its hold on a large section of the agricultural population. The industry is carried on in the districts of Atrahbald, Nalgonda, Nizamabad, Medak, Karimnagar, Adilabad and Warangal. Of these Karimnagar, Adilabad, Warangal, Medak, Nizamabad and Nalgonda are the most important districts, where it is carried somewhat on a large scale (*vide* Chapter XII, Chart II and III).

The raw cotton is obtained locally and is cleaned and ginned by women, on the old type of hand ginning machines. The yarn spun on hand is coarse and uneven and more over there is no uniformity in the standard of yarn produced. Hence it is suitable only for making coarse varieties of cloth. According to the census of 1340 Fasli (1930 A. D.) there were 71,282 spinners, with 169,891 charkas distributed all over the Dominions.

A portion of the yarn thus produced is sold in the market but mostly given direct to the weavers to weave into cloth for domestic use. The wages earned by a spinner are very low, as only half pound of cotton can be spun in three days. Thus the daily earning of a spinner does not exceed more than As.1-6 and this income is nothing than a bare subsistence wage. Meagre as this wage seem to a casual observer, the great relief it gives to the poor is untold, considering the very low per capita income of an Indian. However, for the agriculturists who have no work in fields for some months every year it is profitable to devote their time to spinning and earn something or at least spin sufficient quantity of yarn for turning into clothes for their own domestic consumption. Otherwise hand spinning is not a paying occupation.

CHAPTER V.

Dyeing and Printing.

Castes engaged.—Depending on the industry of weaving is that of dyeing and is as ancient as weaving itself. It is practised almost at each weaving centre, either by professional dyers or by the weavers themselves. Majority of the dyers belong to Bhowsar or Tailor caste and dyeing is their hereditary profession. They are known as Nelgurs (indigo dyers) or Rangrez. Those engaged in indigo dyeing are known as Nelgurs but since the introduction of sulphur blue most of these Nelgurs left their hereditary profession of dyeing and have adopted the art of weaving as their main occupation and are known as Bungur dyers. Mohamadans are also engaged in this art. Besides these, other castes are also engaged in dyeing such as Varlore and Pawar, with a few Koli and Dhunger castes.

Yarn dyeing centres.—Gulbarga, Medak, Mahboobnagar, Nizamabad and Warangal are the districts, where yarns are dyed for trade by few master dyers,

who work either with the help of their family members or with the assistance of coolies, whom they engage on daily or piece wages. Very few sowcar weavers, who possess a number of looms under their control have a dye house attached to their factories, and dye their own yarn, employing dyer labourers.

Adilabad, Bidar, Itachur, Osmanabad, Bhir, Nander, Karimnagar, Parbhani, Naigonda are the districts, where the yarns to a limited extent are dyed, and professional dyers are engaged in this art. It may be stated that the dyes and chemicals to the value of Rs. 8,74,000 are consumed yearly (*vide* Chapter XII, Chart III). Most of the yarn used in coloured fabrics is imported ready dyed from Bombay, Sholapur, Nagpur and Madura, specially green, yellow, and orange (red and black is also imported to a small extent) as the local dyers are unable to dye yarn in different fast colours according to the requirements. Dyeing may be divided into 3 heads, viz :—

1. Cotton yarn dyeing.
2. Silk dyeing.
3. Garment dyeing.

Cotton yarn dyeing.—Cotton yarn dyeing is carried on at each weaving centre either by the dyers or weavers themselves. Majority of the dyers, engaged in yarn dyeing, belonging to Bhowar or tailor castes. Very few Mohamadan dyers are engaged in dyeing yarn. The main dye stuffs used are alizarine red, natural-indigo, or sulphur-indigo, sulphur-black, chrome-yellow; but naphthol dyes are also used to some extent. Direct and basic dyes are largely used in dyeing mercerised yarn, which is used for border of saris.

Method of dyeing.—The present methods of dyeing cotton yarn with alizarine red and indigo is laborious and crude, and the result is far from satisfactory. The method of dyeing with alizarine is as follows :—

One dyer with the help of an assistant can dye 12 bundles of yarn in 8 days to 15 days and the shades thus produced are not bright but dark and dull. The process of dyeing being very lengthy, they cannot accomplish a single lot in less than 8 days. Oiling is the most laborious work. The yarn is first soaked in an emulsion of oil and alkaline earth, and then trampled upon by men. The wet yarn is freed from most of its moisture by squeezing and then dried for the whole day. When it is completely dry it is further soaked in a fresh emulsion of oil and alkaline earth. This operation is repeated until enough oil is impregnated in the yarn in the form of unsaturated fatty acids of unknown composition. For one bundle of yarn about 4 lbs. of sweet oil and 5 ounces of alum are used and about 20 per cent. alizarine paste (Kada). At some places Til-ash and sheep dung are also added and oil is not used, but hulda (myrobalan) process is followed. Turkey red oil is also used but at very few centres and even by few dyers.

The process of dyeing alizarine is more or less the same in all places. Very primitive methods are employed and the time taken is very long. The shades and the dyeing charges also are not standardised, so that when a weaver wants the yarn to be dyed fast with alizarine red, the dyer will quote him different prices for the same shade. The weaver no doubt prefers the cheapest, with the result that the dyer uses fugitive colours, which the weaver is ignorant of. From the appearance and smell it is difficult to test whether the colour is fast or not etc. and the weaver seldom knows to test the dyed yarn. The cost of dyeing with alizarine varies from Re. 1.8 to Rs. 5 per bundle of 10 lbs.

The dyeing of indigo blue is carried by the fermentation vat process. This is, no doubt, the cheapest method available in far off and remote places, where it is difficult to get chemicals. The natural indigo being an expensive stuff, the controlling of the process requires some experience and if the vat is not used up in time it decomposes and loses in value. In this also there are several shades of varying fastness. In order to make the dyeing as cheap as possible, other fugitive colours are largely employed and after topping with indigo the goods pass off for real indigo. The dyeing charges for indigo vary from Rs. 2 to Rs. 9 per bundle of 10 lbs. depending on the number of dips.

Silk dyeing.—Silk yarn is mostly dyed by the weavers themselves. The colours used in silk are blue, red, green, black, yellow and pink and are

mainly basic and direct; acid colours are used to small extent in few places. The only indigenous dyes that are still in vogue are kirmanji red and kapilla yellow. Before dyeing, silk is bleached in a solution of lime and alkaline earth. The method of dyeing with kirmanji seeds on Alum mordant is as follows. About one pound of kirmanji seeds are taken and half a pound of pista flower is added to it and both are well ground and mixed in water and boiled. The bleached silk is soaked in this solution for two or three hours. It is then taken out, rinsed in fresh water and dried; to obtain dark red colour huiji is also added in the mixture. There is a wastage of 20 to 25 lbs., in bleaching 100 lbs. of silk.

Garment dyeing.—Dyeing of garment is mostly carried out by Mohamadan dyers. The colours used for garment dyeing are strictly limited to different shades of direct and basic dyes. The dyed goods include, saris, duppatas, chadars, and kurta used by women.

Hand block printing.—Next to dyeing, printing is the important industry, which is as ancient as weaving and claims co-existence with it. It is carried on more or less in a primitive form at each weaving centre and even in interior villages, by khowsar or tailor dyers known as Chupies. The colours used for printing are strictly limited to different shades of alizarine (rada), red, and chocolate being most popular. Black is also used to a large extent, and is produced on the fabric by using iron mordant. The printed goods include, saris, jazon, purdha, razai, duster khana, jainamaz, lambadi duppatas, and lehengas. The process of oiling the cloth is omitted and instead myrobalan (harau) are exclusively used. After printing, the goods are washed in water to remove all the gum. After washing, the goods are cleaned or bleached either with sheep dung or by spreading on the green mose, accumulated on the surface of water in sun-shine for varying lengths of time. The whole process is very lengthy and takes over one week to complete. The designs and patterns used for printing are of very old type, and usually cut by the printers themselves. The printers may be divided into 2 classes, viz :—

1. Independent workers.
2. Wage earners.

The first class of workers are those, who purchase their own cloth (either mill made or hand made) and trade in printed cloth. The second class of workers are those, who do not do any trade in printed cloth, but execute orders from local people or merchants dealing in printed cloth.

The cloth is supplied by the customers and the printer charges fixed charges. This class of printers may remain idle for several months, during slack season. Almost all the dyers and printers are illiterate and ignorant of the proper way of using and manipulating the synthetic dyes or of combining the same with mordants. Majority of them are poor and have no money for running their own dye house. Hence they prefer to work under master dyer or sowcars as labourers. Thus not only the efficiency of the dyer suffers but also they are not able to earn enough wages to maintain their family, with the result that they take to other occupation to earn their livelihood. The dyers could not find their hereditary profession profitable and hence have taken to agriculture.

There are of course, certain factors that must operate, to make these two sister industries of dyeing and printing to flourish, such as patronage by aristocracy, facilities of easy sale and above all the suitability of water. The ancient indigenous dyes are rapidly being replaced by cheap synthetic dyes that are exported from foreign countries. But the rank ignorance and illiteracy of our dyers make it impossible for them to use them intelligently and well. Moreover, they have to compete with cheap imported cloths which come coloured with better shades which are generally preferred by the consuming public. The tastes of the public change but our dyers and printers never change their dyes or blocks to suit the changing tastes. Thus a considerable decline is found in these industries also and unless immediate steps are taken by sending peripatetic dyeing parties to spread up-to-date knowledge in making recipes of fast synthetic dyes and better designed blocks, any attempt to revive these industries of dyeing and printing, is sure to be unsuccessful.

CHAPTER VI.

Wool Spinning and Weaving.

The art of spinning and weaving wool was known to the Indians from the very earliest times as we find mention of it, in the ancient Hindu scriptures.

Locality in which wool industry is carried.—This industry is carried on generally throughout the Dominions but particularly in wool producing areas of which Atraf-i-Balda, Karimnagar, Mahboobnagar, Medak, Gulbarga, Bidar and Nalgonda are the Districts in the order of their importance. The only class that is engaged in this industry, is the Kuravaloos or Kurvas, a sub-caste of Dhangers. Sheep breeding and cumble weaving are their main occupation though rarely, we find them engaged in agriculture. The wool obtained from the sheep of the above places is of short staple and of very poor quality.

Most of the wool produced in the Dominions are sent to outside places rather than spun and woven into cumbles here. It is a great economic loss to export raw wool to the extent of O. S. Rs. 2,85,000 every year, out of total production of Rs. 5,70,000. The finished products are exported from the State to the outside places to the extent of O. S. Rs. 2,00,000, the remaining quantity worth Rs. 4,31,000 being consumed locally by the labouring classes (*vide* Chapter XII, Charts III and IV). Out of a total population of 928,404 Dhangers as recorded in the census of 1930 A.D. only 26,620 are engaged in wool weaving and allied processes (*vide* Chapter XII, Chart II). If only the export of raw wool is stopped, we could very easily absorb the remaining population among them, in this industry.

Implements used for making cumbles.—The looms and implements used for making cumbles are of primitive type. A small string bow is used for carding and cleaning the wool and a piece of hollow bamboo with closed bottom is used for making shed and the weft and is beaten to the fell of cloth by means of a piece of wood.

Quantities produced.—The cumbles manufactured in the Dominions are of three qualities, such as:—

1. Cumbles of coarse textures made out of live wool.
2. Cumbles of loose texture known as Jhoras and are made of live wool.
3. Cumbles made out of dead wool, known as kuchra cumbles.

The sizes vary from 3 to 5 yards in length and 42" to 54" in width, the prices also vary from Re. 1-2 to Rs. 9, according to the quality of the cumble.

The average production of a loom is one yard per day.

The profit in preparing an ordinary cumble measuring 8 cubits by 48" weighing 3 seers is as follows:—

	O. S. Rs. A.
Raw wool 6 lbs.	0 11
Cleaning, carding and spinning which takes 15 days at As. 2 per day	1 14
Sizing	0 2
Weaving which requires at least 4 days at As. 3 per day	0 12
Cost price	3 7
Selling price	3 8
Profit	0 1

Preliminary process are attended to by the other members of family and so the wages go to the family only. Thus the average income of a

cumle weaver's family consisting on an average is about Rs. 10 per month. Most of them own some lands and follow agriculture as their main occupation.

Population of Dhangers and number of sheep.—The population of Dhangers as per last census was 928,404, of which 26,620 were actually engaged in weaving of cumbles and the processes connected therewith, employing 14,393 looms. And the total number of sheep from which the raw material is obtained for weaving cumbles, according to the cattle census of 1340 Fasli (i.e., 1930 A.D.) was 5,744,347. The local sheep are of ordinary breed. The wool obtained is of three colours, black, white and admixture of black and grey. Mixed wool is mostly obtained while white wool is very rare. Black wool fetches a better price than white or grey wool.

Shearing.—The wool shearing is commenced when the sheep reach 6 or 7 months of age, generally in the months of October and November. Before shearing, the sheep are cleaned well in pools, at least a week before shearing. Shearing is generally done with the help of other shepherds. The shearer is allowed to shear the wool of 5 sheep as his remuneration, for every 100 sheep sheared (which comes to about $1\frac{1}{4}$ seers), and one evening meal along with sendi. 100 sheep can be sheared in 3 days by two men and about 25 to 30 pounds of wool is obtained.

Dhangers are of easy going temperament, devoid of any ambition. They are content with their small income, as can be secured locally without much trouble. They hardly borrow money for their domestic use or even for their work.

The industry is capable of improvement in three respect, viz., (1) Breeding, (2) Grazing facilities, (3) Improvement in looms and appliances.

The wool obtained from these sheep is of coarse quality and of short staple and no attempt is made to improve the quality by proper attention to the breeding and tending of the sheep.

Grazing facilities.—As regards grazing, at present, there is no permanent pasture lands, within easy distance. The sheep are taken to a great distance moving from place to place in search of pasture lands specially when the fields are under cultivation. In summer season, when the fields are dry, then also there is not sufficient grass for feeding. The result is that the sheep suffer from under feeding and lose their energy and are unable to withstand the disease which generally breaks out in rainy season.

Dhangers as a class are very conservative, they cannot easily be persuaded to change their crude and primitive methods. However, this difficulty can be overcome, if an intelligent man amongst them is selected and trained in Cottage Industries Institute. After training he should be sent among this caste men to introduce improved appliances for spinning and weaving by practical demonstration.

CHAPTER VII.

Woollen pile carpets, Durries and Newad.

Places where carpet industry is carried on.—The manufacture of pile carpets has been carried on in Mathwada, Rangashaipet, Karimabad, and Urus from time immemorial. They are known as Warangal carpets. The industry has in recent years shown marked signs of decline and the quality of the carpets also has very much deteriorated.

Material used.—The wool used now-a-days for weaving, is scraped or limed-wool, obtained from local tanneries. The old vegetable dyes have given place to the cheap basic dyes, available in the local market. These colours are no doubt very bright, but they are fugitives. After a short exposure of few days to sun, the colour fades and cannot be restored, with the result that the carpets lose all the beauty. The weaver is often blamed

for using dead wool and fugitive colours and for poor weaving, but he is not solely responsible for the decline of the industry. He is really compelled to do so. In fact, he makes more often what the merchant wants and will buy. The merchant gives designs and complete specifications to the weavers. The goods are made according to market demand. It is not therefore to be supposed that the weaver cannot produce superior stuff; but they are compelled to turn out inferior stuff with a view to cheapening the cost of production.

Decline of Industry.—There is a gradual decrease in the value of carpets exported from Warangal. It is therefore, high time for them to devote themselves in producing the best stuffs, then, they can hope to regain their lost position and markets. In Warangal there are 300 rammes with 500 looms; or these only as many as 12 with 70 looms are engaged in manufacturing woollen carpets and about 50 with 90 looms are engaged in making bed durries while the rest have taken to some other work. The manufacturers are all Mohammadans. The looms in use, are of the vertical type, varying from 5 ft. to 15 ft. width. The pile carpets are generally made in two sizes, such as 4'x4' with five stitches per inch costing O. S. Rs. 6-8 and 6'x3' costing O. S. Rs. 3-4. Five tods of cotton yarn is employed for warp and raw (uncleaned) hemp is used in weft. Cotton yarn and wool employed in carpets are twisted on hand charka by their women, while the hemp used for weft is merely folded.

Standard of living.—The standard of living of these weavers is very low. The carpet weavers, really speaking, make no profit. They simply charge for their labour.

The following is a typical example of costing sheet for preparing an ordinary carpet 4'x4' made out of dead wool, 5 stitches per inch weighing 12 to 14 pounds:—

	Rs. A. P.
6s cotton yarn for warp 1 lb.	0 6 0
Twisting and doubling charges	0 1 0
Warping charges	0 1 0
Dead wool 11 lbs. at As. 2-3 a lb.	1 8 9
Carding and twisting wool	0 9 2
Dyeing charges	0 7 0
Hemp for weft 3 seers at As. 1½ a lb.	0 9 0
Weaving charges	2 4 0
Cost price	5 13 11
Selling price	6 4 0
Profit	0 6 1

Twisting and carding, etc., as given above are generally attended to by the weaver's family. Therefore, the amount of these items go to him. The poverty of the carpet weavers is the chief obstacle in the way of improvement. They are in the clutches of the dealers.

Market.—The carpets are taken by a local dealer by name Bhoput Viriah, who exports them to England. At one time, the quantity exported by the firm was worth about Rs. 1,00,000; but at present, annual trade is estimated to be only Rs. 36,000. The local and provincial consumption is very limited.

Floor and Bed Durries or Shutranyies.—Cotton durries are manufactured in Warangal, Nander, Alumpur (Raichur District), Narainpet (Mabbubnagar District) and Kundhar (Nander District), while floor durries of different designs and dimensions can be woven on order in Warangal, Nander, and Alumpur. The weavers engaged in this industry are mostly Mohammadans. Women are also employed for preliminary processes.

Warangul and its adjoining villages.—There are about 90 vertical looms; engaged in weaving bed and floor durries. Three threads of No. 10s or 2 threads of 20s are twisted together and used as warp while in weft 2s, 3s, 4s or 10s yarn is used. The colours used are dark blue, light blue and red and are woven in stripes. A bed durri, measuring 7' x 4' is sold for Rs. 3. The normal outturn of a worker is one durri a day, and an average earning comes to about As. 5 to As. 6 per day. Floor durries are sold by weight. A floor durri, made of 3s and 2s warp and weft, is sold at the rate of Re. 1-8 per seer (of 80 tolas). If 6s yarn is used both for warp and weft, when it is sold at the rate of O. S. Rs. 2 per seer.

It is to be regretted that this industry is not in a flourishing condition and the market is very dull. They are sold locally or sent to Hyderabad.

There is one big factory in Warangul, owned by Mr. Jan Kohamud, where bed shutranjies are woven on fly shuttle looms. An operator working 8 hours a day can weave a piece, measuring 6' x 9" by 3' x 9" and earn As. 6 per day.

Nander and Kundhar.—There are about 68 vertical looms at work in the above mentioned places. The width of the looms varies from 44" to 46". The women and children generally work on these looms while men prepare warp. The proportion of women workers to men workers is nearly 5 to 1. The bulk of the weft yarn used in durri is 2s waste yarn. Three threads of 10s are twisted together and used for warp. The colours used, are black, red, green and yellow, all direct colours. An ordinary coarse durri, measuring 2 yards by 1½ yards, costs Rs. 2. The average weight of a durri is about 3½ lbs. Two operators can finish a piece of the above mentioned size in 1 day, working 8 hours and can earn O. S. As. 8. They are generally sold locally or sent as far as Hyderabad.

Alampur.—There are 3 karkhanas (factories), by name Haji Sahib Meer Factory, Haji Ibrahim Factory and Moiduddin Factory, where shutranjies and durries of different dimensions and patterns are manufactured. About 58 looms are engaged in weaving shutranjies. The looms are of the same type, as used for weaving cotton cloth. The only difference is that they are heavy and possess sley sword (arms). Counts of yarn used for durries are 2s, 6s and 10s and used for weft, while 3/20s is used as warp. A shutranji or Agra pattern, measuring 2½ yards by 1½ yards, costs B. G. Rs. 4 to Rs. 8. Striped shutranji of two pieces measuring 5 yds. by 2½ yds. costs B. G. Rs. 11. Momin women of this place are also weaving shutranjies and durries in their homes.

Narainpet.—There is one factory belonging to Karim Sahib Dedum, equipped with 8 frame fly shuttle looms. Out of these only two frame looms are employed in weaving bed and floor shutranjies. The price of bed shutranji, measuring 2½ yards by 1½ yards, is O. S. Rs. 3 while the floor shutranjies are sold at the rate of Rs. 2 per lb. Generally a shutranji, measuring 4 yards by 2 yards weighs 7 lbs., and costs O. S. Rs. 14.

Cotton Putty and Tape or Newad Weaving.—This industry is carried on, on a small scale, almost in each weaving centre, in scattered condition by a sect of Musalman called Laddaf (cotton carders) and by Munhars (Bangle sellers) and Putwegars. Women are mostly engaged in this work and is followed both as a full time and as a subsidiary occupation. The looms employed in weaving these goods is very simple, consisting of two rollers. Only one heald is used and a bamboo stick is used in place of a shuttle, on which weft yarn is wound round. The weft is put in to its proper position by beating with a flat piece of wood.

The newad is usually made of 1½" to 2" width and is sold by weight. One than or roll of 80 yards to 100 yards long, weighs 2 seers and sold at the rate of As. 14 to Re. 1 per seer of 80 tolas. Two such rolls are required for a cot. 3s or 6s two or three fold yarn is used for warp and weft and is twisted on churka. Hand spun yarn is also used in fine newad and it is sold at Re. 1-14 to Rs. 2 per seer of 80 tolas.

Putty Weaving.—There are made in width of 8" to 12". 2/10s is used as warp and 10s in weft. These putties are used largely as khurjis (hole-dole) and buttoas (money bags), and is also used as tents by trading classes. They are sold by yards. The weaving is very simple. A warp of 9 to 10 yards is prepared and spread lengthwise between two rollers, and is woven in the same way as newad.

There is a good demand for newad and putties and the industry is likely to prosper, if properly organised. The weaving is very simple. We have introduced a multiple shuttle-newar-loom in the Cottage Industries Institute to weave 7 newad at a time, which can be introduced in the Districts also.

CHAPTER VIII.

Markets.

Absence of facilities for marketing.—One of the greatest obstacles that stands at the root of the decline of the various nascent industries of the Dominions, as elsewhere in India, is the absence of the facilities for marketing the products of the cottage workers and throughout the course of my survey, workers from every part implored me to impress on the Government the urgency and importance of this universal complaint so that they may be relieved of this nightmare. I informed them about the recent establishment of a Central Cottage Industries Sales Depôt at the Capital city of Hyderabad and elaborated on its objects and methods and gave them to understand that if they willed, they could make profitable use of the Depôt, in the disposal of their manufactured products which could not find a sale in their own village or immediate neighbourhood.

But to find a ready and steady sale in the open market, the cottage workers have to keep in view, two important factors that go to make it a success and those are the reduction in the cost of production and the scrupulous maintenance of a fair standard in quality, of the goods to be manufactured.

I do not see any reason why we should not find a ready market for the sale of articles manufactured by our cottage workers, provided, the articles are of good quality and also to the tastes of middle and higher classes. In my opinion, it is the lethargic tendency of our workmen with no ambition whatsoever to better their lot or push their sales that make them complain about marketing difficulties.

Advertisement is the very breath of trade and the trade increases or drops proportionate to the volume and way in which the goods are advertised. Besides finding fresh markets for the sale of cottage products, the Cottage Industries Sales Depôt must act as an information bureau and as an advertising agency. The Sales Depôt should have branches in important centres for assisting the workers by keeping them informed of new designs and patterns, methods and processes, etc., so that their products may be accordingly turned out.

In the matter of reducing the cost of production, the chief difficulty we may encounter is the question of supplying raw materials which is now being more or less exclusively supplied by local sowcars and yarn dealers on credit at their terms. Unless the workers are supplied with raw materials at a cheaper rate, the very object of the Sales Depôt will be defeated.

System of marketing the finished product.—Turning next to the methods by means of which finished products are disposed of, the following channels are found to be those along which the trade normally flows:—

- (1) The most widely prevalent method, however, is that which is followed by the sowcars who own shops at all the important weaving centres in the Dominions and who give out work to the weavers on the piece wage system and keep a large stock of cloth for export according to the demand.

- (2) In the rural areas, the cloth is either sold by the weavers themselves in the nearest market on bazar day or handed over to local hawkers for sale on commission basis.
- (3) In some cases the finished goods are given to master-workmen who are the sowcars among them or to local cloth merchants at few annas less than the market value.
- (4) A few of the weaving centres are visited by outside dealers who collect goods going from house to house, specially in the marriage season.

Middlemen's and Sowcars' share of profits.—Thus the middlemen and sowcars, who come between the consumer and the manufacturer make profit for themselves; and the actual producer is left in ignorance and poverty. Very few actual manufacturers are in a position to stock their goods and send them to more favourable places for sale, as the sowcars do.

By referring to Chapter XII, Chart No. 4, it can be seen that the total value of hand made goods manufactured in the Dominions comes to about Rs. 2,49,40,200 per year.

Markets.—About 85 per cent. of this are consumed in the Dominions while the remaining 15 per cent. which includes pile carpets, cambles, patkas, lungis, khaddar cloth are exported to Bombay, Ceylon and Mysore. Woollen pile carpets are sent to England. Mixed check saris of Narainpet and cheap striped saris of Gulbarga go as far as Bombay, Poona, Sholapur, Satara and Islampur. It seems there is a fair demand for these fabrics in the above mentioned places in marriage season. The mixed check saris of Ilkul designs which are woven in Dhotihalli, Manidhalli, Hanumsagar, Tawargira, Muski and Mudgal in Raichur District are generally taken by Ilkul dealers.

Patkas, lungis and coarse printed cloths are exported to Arabia and Karachi, etc., by the Arab merchants of Hyderabad.

Scope for improvement and State aid.—There is wide scope for capturing foreign markets but the opportunities are being lost and neglected by our workers. The pile carpets of Warangal which were exported in large quantities to Europe and the United Kingdom have fallen in demand as the quality has deteriorated. By giving expert, technical advice, by providing better and cheaper raw materials, by giving more attractive models and designs, by better education creating a conscious effort on the part of artisans to improve their work and condition, by sound advertisement, marketing facilities will be created of its own accord.

Before closing this chapter it is well to observe on the potentialities of co-operation in the case of handloom weavers and other artisans, as it may not be possible for ever for the Government, to be engaged in trade, financing and organising the whole concern which has inherent difficulties and outside opposition to meet with. Certainly the industrial workers cannot have adequate knowledge of the real markets for his products or the capacity to study their condition and slow emergence of the middle-men or sowcar has been the inevitable result, the poor artisan losing his independence and legitimate share in the profit. The royal road to his salvation lies in eliminating this extraneous element by founding not only in the metropolis but throughout the districts in important centres, industrial and commercial banks and societies, either on the co-operative basis or on the footing of the joint stock principle. It may not be possible for some time to come at least, to do away with the middle-men who is a necessary evil in any trade, but our ultimate objective should be to reduce their number and their evil, influence, as much as possible, by starting sales depôts or societies which should, besides finding fresh markets for sales of finished goods furnish the village artisan with up-to-date knowledge of the various scientific improvements tools and appliances and above all the necessary raw materials at, as cheaper a rate, as possible.

But if we are to judge by the fate of various societies organised by non-artisans the prospects are dismal indeed. On the other hand, such societies should be started by the fortunate few of the rich and educated members of the community itself who, more often than not, exploit their poor brethren. In the earlier stages the Government should start organisations and when the time is ripe, it may hand it over to a co-operative agency.

CHAPTER IX.

Economics.

Although there cannot be any hard and fast line drawn, demarcating the various chapters contained in this report which deals more or less with the economic condition of the handloom weavers and dyers, an attempt is made in this chapter to deal in a more detailed manner, with the question of labour and finance.

Labour.—As labour forms the most important factor in the production of cloth, it is well to know how far it is available, what kind of labour we get, what are its potentialities and also how it could be trained and bettered and harnessed for more efficient and larger production. As stated already, there are 406,881 weavers and 5,451 dyers and printers in the whole Dominions.

The weavers according to the methods of their work may broadly be divided into five classes:—

1. Sowcar or master weavers.
2. Independent weavers.
3. Middlemen—master weavers.
4. Wage weavers.
5. Hired labourers.

The first class of weavers are those who possess a number of looms worked by hired labourers and keep under their control these weavers, supplying them with yarn and receiving the cloth by paying them wages either according to the nature of the cloth or as agreed upon by them previously. This business is known as *chulti*. They carry on export trade with other places making large profits thereby.

The second class of weavers are those who borrow money or yarn at high rates of interest from sowcars of their own castes or from yarn merchants and make the fabrics and sell them and repay their loan either wholly or partly and take fresh loans.

The third class although they do, not possess capital, they get raw materials from the sowcars to prepare cloths on the rates previously agreed upon for each fabric. These middlemen engage labourers and distribute the yarn among the wage weavers to make cloth and pay them their wages, a little less than what they get from the sawcars—this being the remuneration or the recompense for providing looms for hired labourers and work for the weavers.

The fourth class have their own looms. They are supplied with raw materials by the sowcars settling previously only the price of the cloth which includes the wages of warping, sizing and weaving.

The last class, though hereditary weavers, are too poor even to possess looms and they are entirely dependent both for their looms and work on other more fortunate weavers who employ them in their factories.

Thus although, there is abundance of cheap labour in the Dominions, it is a pity that they do not possess anything like the organisation, skill or enterprise of their western brethren. They are sunk in ignorance and poverty. They have taken to drink also and this bad habit has told on their health and also on their work. They are devoid of any ambition to better

their lot. They are too sluggish and conservative and are losing ground daily. Their products are not liked by the modern public as they lack taste and fancy designs.

Their housing condition is most miserable and wretched. They live in ill-ventilated, insanitary congested cottages, mostly thatched. They look more like black dungeons than habitable dwellings. The rooms are neither airy nor commodious and they are seldom properly floored with slabs. Thus the whole place is too dirty, for good and costly cloths to be woven. The weavers themselves look ill-fed, ill-clothed and famine stricken.

Earning Capacity of Weavers.—The earning capacity of the workers depends on the merit and quality of work done. Whereas a skilled silk weaver earns from As. 12 to Re. 1 a day, the cotton weaver can earn only As. 7 to As. 10. If the cotton weaver is an unskilled one, who usually weaves coarse cloth he may get on an average As. 5 per day. Thus the average monthly income of silk weaver is about Rs. 22-8 to Rs. 30 while that of the cotton weaver is about Rs. 13-2 to Rs. 18-12.

Finance.—Equally important, if not more, is the question of financing the handloom weavers and dyers of the Dominions. The bed-rock on which the industry is based or it flourishes, is the method by which it is financed and the source from where it derives financial support. Throughout the Dominions, wherever you look you find more or less the same system is followed in the matter of finance. The whole industry is in the death grip of the greedy sowcars or money lenders or yarn dealers, who have spread their activities in every nook and corner of the State, where this industry is carried on. There are very few indeed of those fortunate weavers who can independently do without the assistance of these sowcars, affording to purchase their requirements for ready cash at the cheapest market. But unfortunately, they form a microscopic minority amongst them. A large majority of the weavers are so badly indebted that they are unable to get their raw materials except on credit, the repayment being made after the goods manufactured by them are sold. They are unable to keep the goods for a long time so that they may sell them more favourably, as the sowcars or yarn dealers would be pressing them for payment very often. Thus they generally sell away their products at a nominal price which leaves them very poor margin of profit, if any. But among this class of weavers, there are some who agree beforehand to sell the products to the sowcars themselves who cannot be expected to take them even at the market rates prevalent. Still, some others there are, who not only get their raw materials but also take some money for their household purposes and weave for the sowcars, the latter paying only fixed wages. Some borrow money at high rates of interest but get their raw materials for cash at the cheapest market and after disposing of the products, they repay the loan with interest, the balance if any being kept as wages.

In any case, the rapacious money lenders and yarn merchants deprive the poor weavers of their little profit, which rightly belongs to them. Almost all the weavers are indebted and they are not in a position to free themselves by any amount of their honest work. The present depression has affected them terribly and many have left their hereditary occupation and some even have emigrated to British India, where they could get better wages and continuous work. The economic loss in allowing these artisans to emigrate to foreign parts, is incalculable and we have to find some way out, to help them in their present plight.

The problem of freeing the artisans from the clutches of these sowcars, middlemen and yarn dealers is fraught with difficulties and risks that a solution does seem well-nigh impossible. The remedy lies in forming associations and credit societies in every important centre, in creating among weavers the qualities of thrift, economy and co-operation and in educating them to shake off their lethargy and to take to improved methods of weaving and dyeing, introducing fanciful designs and fast dyes, etc. Co-operation alone can solve this problem in an effective manner. Co-operation is the capitalisation of honesty. They would make them self-sufficient and self-

supporting and thereby self-respecting. Commercial banks may, with advantage, be started in their midst. But, for all these, the Government will have to take the initiative and guide them in their infant stages till such time that the whole affairs could be successfully conducted by the weavers and dyers themselves.

But, above all, general education should be imparted to the coming generation who may be able to realise their inherent defects in a better way and to combat with them more successfully. But there should be inducement for the parents to send their children to schools as they now assist their parents in the various processes of weaving. The parents cannot be expected to forgo this support without some compensation, especially under the trying conditions of to-day.

CHAPTER X.

Import of hand made fabrics and their origin and quality.

Quality of goods imported.—At a time when the economic condition of our weavers and dyers are far from satisfactory and their ranks of unemployed are swelling bigger and bigger, it is most regrettable and disappointing to note that large quantities, in different varieties, of hand made goods such as fine and coarse saris, costly pitambars, uppnarnas, shamlas and cholkhans, etc., are imported into the Dominions, finding a ready market here. Every year, hand made goods of all description, to the enormous extent of about O. S. Rs. 32,50,000 are being imported into the Dominions, which practically means that our own weavers and dyers are deprived of their means of livelihood to that extent. For it is not beyond their powers to replace every inch of foreign hand made import, provided they are given proper technical advice and monetary assistance.

Places from where imported.—By refering Chart V in Chapter XII it may be found that of the import of these various kinds of hand made things, saris form the largest and the most important item. We are importing coarse cheap saris of check patterns from Nagpur, Malegaon, Amengudh and Sholapur. Of these, Sholapur saris are best liked and widely patronised. Again Aurangabad, Bhid, and Parbhani districts are flooded with coarse and cheap striped saris of Ahmadnagar. It is a great pity, that our weavers of Jalna in particular and of other places, in general, should entertain such silly fears of over-production in case they take to fly shuttle sleys and other improved methods and stick on to their old pit looms with their miserably low productions, even after they see the large sale of these foreign saris in their markets.

Like-wise, Poona, Jamalmadgu, Pedum, Salem, Poddator, and Sholapur are sending fine cotton saris, in fancy colours and of light shades into the Dominions. From Coimbatore, costly fine cotton saris and shamlas having gold lace borders are obtained and they find a ready sale in almost all the Districts in the Dominions. Further we are getting silk Pitambars and kud having ornamental designs in gold lace from Benares and Surat respectively.

Fine saris of mixed quality are obtained from Ilkul, Poona and Salem. The silk solid border Dhoties are imported from Nagpur. The cholkhans which are an admixture of silk or artificial silk and cotton, in different fancy designs, are mostly obtained from Gorudgudh and Bagulkote.

It is an indisputable fact that these imports of hand made fabrics are adversely affecting our own handloom weavers and dyers and before we consider the question of replacing them, it is highly necessary to know how these goods slowly but steadily penetrated into our markets, ousting the products of our own workmen, thereby. Varied and many are the causes that contributed towards the import of them in large quantities into our markets.

Causes that favoured the import.—First and foremost is the supply of these goods to our wholesale dealers on long-term credits, by foreign mer-

chants of those places who deal in these hand made goods. The inducement of long credits thus extended to our merchants was so alluring that they cared little for the sufferings and loss of our own workmen. The result was disastrous to our weavers and dyers. Of course, it involved a certain amount of risk and inconvenience for our merchants to advance money or raw materials, to the weavers and make them weave saris of required patterns and designs, and hence they chose to become more or less commission agents, to outside dealers, undertaking to dispose of their goods for an assured profit which entailed no risk what-so-ever.

2. Next in importance is the standard good quality and uniform size of these goods that made them preferable. However, much, our merchants may be at fault, it cannot be denied that our workmen always try to deteriorate the quality by all questionable means. The name and quality of these foreign hand made goods have been established and it would belong, before they could be driven out, replaced by our workmen.

3. The mixed light shades of these goods give them a decided advantage over the products of our own workmen.

4. Again as often as the tastes of the public change, the designs and patterns of the saris are also changed and thus these goods find a ready sale in the market.

5. Last but not the least important is the comparatively low cost of their productions and the consequent cheaper prices that enable these products to compete in our markets more favourably, though they come from long distances.

Scope of replacement.—In order to tackle the question of replacing the hand made goods that are imported at present, under the favourable circumstances cited above the weavers and dyers in the Dominion will have to be awakened from their torpor and made to realise the seriousness of their loss. They must be trained and taught the use of fast dyes and mixed shades. The raw materials should be supplied at the cheapest rates possible. All these things cannot be accomplished unless the reform comes mainly from within, i.e., from themselves and partly from without.

Societies by local influential people should be formed in important centres, and they should be given all facilities and encouragement by Government, such as giving them technical help, practical demonstration by the itinerant weaving and dyeing parties, and by collecting samples of these foreign fabrics and reproducing them, by supplying raw materials and inducing our merchants to buy such products from societies, etc.

CHAPTER XI.

Conclusions and suggestions.

Conclusions.—In the foregoing Report, I have tried to the best of my ability to depict the existing condition of handloom weaving, dyeing and printing industries in Hyderabad State and also the economic and social condition of the working class. I have suggested lines for the development of these industries. The future prospects of the industry mostly depend on the Government help in four respects, i.e., financial, technical, educational and by providing commercial facilities. Of these, education is the most important problem, that can make them realise their condition as the improvement must come from within.

I should also refer that the conditions can be greatly improved, if sympathetic influential men amongst themselves will take an active part to assist these industrialists in right earnest way, by removing their social evils which are detrimental to their progress (like the Padmashali Association), be started among other weaving communities, who may come forward to their assistance.

Suggestions.—After a careful and close study of the existing condition of the artisan classes such as weavers, dyers, printers, etc., during this

survey, I have come to the conclusion that certain immediate steps are to be taken for their betterment and the rehabilitation of their various industries, if their total extinction is to be averted. Although, they all look forward to Government support for everything, both monetary and technical advice, their salvation rests mainly upon themselves. Of course, the Government will have to give them which they are sympathetically extending the necessary help whenever there is necessity and wherever practicable. The Commerce and Industries Department have taken various steps already to better their conditions by starting of suitable institutions in their midst. It is with the ardent desire to devise ways and means, of helping the poor weavers of the Dominions, that this survey was undertaken with a view to better their present pitiable lot, which was partly due to the world wide trade depression but mainly the outcome of the conservatism and incapacity of the artisans to change with the times. The following remedies are suggested:—

(1) I would suggest the opening of co-operative commercial societies among the weavers and dyers in each of the important weaving centres and also industrial banks in each of the weaving places, from which raw materials (*i.e.*, yarn, dye stuffs, etc.) and improved weaving appliances and printing blocks of new designs and patterns could be supplied to the actual manufacturers on more favourable terms than at present. Better if hire-purchase system be introduced for the sale of the appliances. Sales Depôts should also be started in each centre and arrangements should be made through the industrial banks to store up the out-put of these societies for sale on a commission basis if their products are of standard approved quality. They should pay a certain percentage of the price to the manufacturers. Agencies should also be started both in the Dominions and outside. These agencies should secure orders and widely advertise the societies' products. On receiving orders from these agencies, the goods should be sent to them and the manufacturers should be paid in full as soon as their goods have been sold, after deducting the small percentage of commission to meet the working expenses of the Depôts. But the societies would have to be managed by the Government, atleast for a few years.

This system may be tried at one centre and if it works satisfactorily, then it may gradually be introduced in other centres also.

(2) The members of these societies should be encouraged with technical advice, to produce fancy goods so as to suit the changing tastes of the public.

(3) The railway freight and customs duty on raw materials should be brought down to a more reasonable level, so as to make it possible for all the articles connected with the handloom industry, to circulate into and out of the market at cheaper rates.

(4) All the Government requirements of cloth in all the Departments should as far as possible be purchased from these societies.

(5) The number of industrial schools with weaving and dyeing branches, should be increased. At least each of the District Head Quarters should be having one industrial school.

(6) Likewise, weaving and dyeing demonstration parties should be increased with a view to raise the weavers and dyers from their economic stupor, as majority of them are ignorant and have no desire to study for themselves the needs of their own industry. They must practically demonstrate to them the advantages of using improved scientific appliances and methods so as to create in them a strong desire to take to such improved methods themselves.

(7) Finally, industrial exhibitions should be held annually, at important centres during jattras, urs, etc., and on such occasions our demonstration parties should demonstrate the up-to-date methods in weaving, dyeing and printing. It would be better to exhibit the best hand woven products of the Dominions so that they may be widely advertised.

Activities of Commerce and Industries Department.—Amongst other organisations, which have been brought into existence, special mention has to be made of the starting of the Cottage Industries Institute, Mashirabad, near Hughes Town Railway station. The object of this Institute is to impart up-to-date instructions and practical demonstration in the art of weaving and dyeing to actual workers and to train them in the art. The Institute will also serve for the training of the demonstration staff, before they are sent for demonstration in districts and to help greatly to bring about an improvement in the industry. One effect would certainly be to give an impetus to the desire on the part of those who have progressive ideas, to adopt more up-to-date means of production.

The Institute has got a number of sections, *viz.*, cotton and silk weaving, woollen spinning and blanket weaving, dyeing and printing, embroidery, hosiery, lacquer-toy work, cane work, durrie weaving and namda making, etc. The Institute will also serve as a research centre for cottage industries.

(2) *Carpet Factory, Warangal.*—This factory is for reviving the carpet industry of Warangal which was once famous for its carpets, but at present this industry is declining due to many reasons which I have mentioned in the foregoing report.

(3) Re-organisation of demonstration work in the rural areas by appointing more qualified demonstrators at each important weaving centre was undertaken. Each demonstrator will have a number of master artisans and a dyeing mistry under him for each group of villages. These men train the local weavers to use improved methods of production, such as fly-shuttle slays and dobbies, etc., and supply these appliances and fit them up in the weavers' cottages. They will also introduce new designs and patterns amongst them and arrangements will also be made to supply the raw materials at the cheapest possible rates.

Dyeing mistries will train the local dyers and printers with the use of synthetic dyes and new methods of dyeing and printing and at the same time the new kinds of dyes and printing blocks of new designs will also be supplied.

But the most important side of the organisation on which the success of all these activities depend is the establishment of a Government Sales Depôt at Hyderabad. This depôt will maintain one or more shops in Hyderabad and Secunderabad and also will have its agents abroad.

CHAPTER XII.

CHART I.—Showing the value of cotton yarn, silk, gold lace and dyes imported from outside during 2 years, as per Customs Report.

Serial No.	Commodity.	1338 Fasli.	1339 Fasli.	Average for two years.
		O. S. Rs.	O. S. Rs.	O. S. Rs.
1	Yarn	98,76,000	90,78,000	94,77,000
2	Silk	17,33,000	15,77,000	16,55,000
3	Dyes	8,98,000	8,53,000	8,75,500
4	Gold lace	7,81,000	7,50,000	7,65,000
	Total value of the raw materials.	1,32,88,000	1,22,58,000	1,27,73,000
	Total value of all commodities	14,97,04,000	14,28,13,000	14,62,58,500

CHART II.—Statement showing the Statistics of the weavers, dyers, etc., as recorded in the census of 1931 A. D. in H. E. H. the Nizam's Dominions.

Serial No.	Districts.	TOTAL POPULATION OF WEAVERS.			LOOMS.		BLANKET WEAVERS OR DHANGARS.		HAND SPINNING.			DYERS AND PRINTERS.
		Males.	Females.	*Children aged 0—13.	Cotton.	Silk.	Total population of Dhangars.	No. of Blanket Looms.	No. of Sheep.	Actual Workers.	No. of Charkhas for spinning yarn.	
1	2	3	4	5	6	7	8	9	10	11	12	13
	State.	143,356	120,644	142,831	93,422	4,183	928,404	14,393	5,744,347	71,282	169,891	5,451
	(Includes Children Also)	211,803	193,078	..	..	..	..	..	..	..	..	..
1	Hyderabad City	1,256	1,082	..	1,637	238	11,513	591	7,445	341	1,039	805
2	Atrai-Palda	8,901	8,770	..	4,383	238	32,460	1,001	338,607	1,824	2,599	424
3	Warangal	23,086	20,211	..	4,690	88	73,368	432	493,213	2,591	13,829	62
4	Karimnagar	43,716	42,957	..	18,147	149	96,518	1,923	799,409	38,403	52,255	413
5	Adilabad	16,746	18,462	..	5,001	19	44,812	1,119	164,435	3,285	24,824	106
6	Medak	17,288	13,420	..	9,503	802	35,705	2,251	494,468	2,003	11,235	232
7	Nizamabad	16,042	14,032	..	5,025	264	73,812	2,101	759,921	215	950	115
8	Mahbubnagar	12,549	9,130	..	6,785	193	106,674	1,035	845,633	17,879	32,686	352
9	Nalgonda	19,533	19,643	..	10,532	149	44,846	615	114,606	24	352	582
10	Aurangabad	3,437	2,957	..	1,047	98	40,606	356	142,508	30	587	260
11	Bir	4,591	3,734	..	1,245	41	29,024	304	94,175	274	2,508	761
12	Nander	9,132	6,960	..	2,310	85	37,048	230	95,016	31	211	168
13	Parbhani	3,254	3,072	..	1,827	138	85,325	1,044	397,073	414	5,518	284
14	Gulbarga	10,422	9,786	..	10,716	1,203	128,231	388	128,231	102	425	119
15	Omanabad	1,967	1,895	..	460	15	91,445	392	460,178	95	655	172
16	Raichur	13,206	12,980	..	7,444	359	60,376	1,108	245,001	208	4,790	175
17	Bidar	6,627	5,938	..	2,620	25	..	..	..	..	..	..

* Figures for children by caste by districts have not been compiled.
The available for children (weavers) of the State is aged 0—13.

	Telugana	Males.	Females.
		51,420	60,479
Marathwara.		17,027	13,955

† Figures for Dyers and Printers cannot be given separately as according to the Schedules passed by the Director General and Secretary, Commerce and Industries, they were grouped together.

CHART IV.—Statement showing the value of various kind of fabrics produced in each of the districts in H. E. H. the Nizam's Dominions.

Serial No.	Name of District.	Value of the silk fabrics in O. S.	Value of the cotton fabrics in O. S.	Value of the tassar fabrics in O. S.	Value of silk fabrics in O. S.	Value of mixed fabrics in O. S.	Value of the hand spun fabrics in O. S.	Value of the woolen blankets in O. S.	Value of the woolen pile carpets and cotton shatranjies in O. S.	REMARKS.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Ra.	
1	Hyderabad, Secunderabad and Atrai-i-Bakia (Sarikhua).	5,00,000	17,00,000	5,000	25,000	85,000	15,000	85,000	15,000	Shatranjies.
2	Warangal.	45,000	13,00,000	60,000	nil	40,000	35,000	98,000	1,35,000 25,000	Pile carpets and about Shatranjies.
3	Karimnagar	95,000	15,00,000	20,000	nil	45,000	40,000	80,000	nil	
4	Adilabad.	5,000	8,50,000	20,000	nil	15,000	20,000	nil	nil	
5	Medak.	10,60,000	16,00,000	nil	nil	45,000	50,000	50,000	nil	
6	Nizamabad	8,00,000	9,00,000	nil	nil	50,000	30,000	50,000	nil	
7	Mahabubnagar	30,000	6,00,000	nil	800	10,00,000	8,000	1,50,000	4,000	Shatranjies.
8	Nalgonda.	45,000	14,00,000	nil	nil	60,000	25,000	28,000	nil	
9	Aurangabad	90,000	9,50,000	5,000	8,000	65,000	2,000	nil	nil	
10	Bir	nil	5,00,000	nil	400	nil	nil	24,000	nil	
11	Nander	nil	8,50,000	nil	nil	nil	nil	16,000	35,000	Shatranjies.
12	Parbhani	90,000	9,00,000	nil	nil	60,000	nil	6,000	nil	
13	Gulbarga	2,00,000	16,00,000	nil	nil	4,90,000	nil	17,000	nil	
14	Osmanabad	nil	3,00,000	nil	nil	nil	nil	9,000	nil	
15	Raichur	3,50,000	13,00,000	nil	3,000	12,50,000	nil	18,000	58,000	Shatranjies.
16	Bidar	nil	9,00,000	nil	nil	nil	nil	nil	nil	
	TOTAL	33,10,000	1,71,50,000	1,10,000	37,200	32,05,000	2,25,000	6,31,000	2,72,000	

CHART V.—*Showing the quantity of hand woven fabrics imported from British India, into H. E. H. the Nizam's Dominions.*

Serial No.	Name of District.	Names of fabrics imported.	Names of the places imported.	Value in O. S.
				Rs.
1	Hyderabad and Atrai-Balda.	Cotton saris in check and plain fancy shade from 20s to 100s yarn. Mixed saris, check and plain body of different colours of 60s warp and art silk in weft. Pitambars of silk having gold lace, shamias of silk, silk kud, square rumals from 40s to 100s.	Nagpur, Irkal, Surat, Jamalmadgu, Sholapur, Coimbatore, Gadag, Selam, Benares, Pedam and Poona.	8,00,000
2	Warangal . . .	Saris from 40s to 80s yarn, plain body of different colours. Mixed saris having 60s warp and art silk in weft check or plain body.	Podatoor, Coimbatore and Selam	1,50,000
3	Karimnagar . . .	Saris of 40s yarn, plain or striped body in different colours	Sholapur, Pendyal and Selam .	50,000
4	Adilabad . . .	Saris from 18s to 40 s yarn, check and plain body different designs and colours .	Sholapur, Sangli, Nagpur, Chanda, Jamalmadgu.	2,00,000
5	Medak . . .	Saris from 20s to 80s yarn, plain and check body of different designs and colours, Mixed saris of art silk and 60s yarn, shamias of 80s yarn, silk saris of fancy shade.	Selam, Coimbatore, Poona, Sholapur, Podatoor and Nagpur.	1,60,000
6	Nizamabad . . .	Saris from 40s to 60s yarn, plain and check body of different designs and colours, art silk saris and cholkhans of different colours.	Pochampalli, Selam, Nagpur and Pedam.	1,00,000
7	Mahbubnagar . . .	Saris of 20s to 60s yarn in check and plain body in different fancy shades saris of art silk in fancy shade, saris of 2/8s mercerised in different fancy shades.	Sholapur, Pochampalli, Selam, Nagpur, Coimbatore and Mysore.	1,20,000
8	Nalgonda . . .	Saris of 20s to 60s yarn, plain and check body in fancy shades, striped saris of 40s and 32s yarn, plain body saris of 26s and 40s yarn in fancy shades, grey dhooties of 40s and 80s yarn having silk solid border, and kud of silk in different designs.	Ahmadnagar, Nagpur, Malegaon and Akola.	1,40,000
9	Aurangabad . . .	Saris and cholkhans in check, striped and plain body from 20s to 100s yarn, saris or silk pitambars, and mixed check saris of 40s and 60s yarn along with silk.	Malegaon, Amingadh, Irkal, Ahmadnagar, Gadagudhi, Benares, Jamalmadgu, Poona and Sholapur.	3,00,000
10	Bir . . .	Saris, check and mixed quality with 60s and 80s yarn and silk, check saris of 20s to 60s yarn in fancy colour, silk kud and pitambars having gold lace or without it, silk shamias of plain and check body, square rumals of silk having lace in borders in different colours.	Irkal, Sholapur, Coimbatore, Surat, and Jamalmadgu.	1,10,000
11	Nander . . .	Saris, check and plain body from 20s to 80s yarn and mixed saris of 60s and art silk, silk saris of plain body in different colours, silk shamias of different colours, square rumals from 60s to 120s yarn and striped cholkhans.	Sholapur, Nagpur, Jamalmadgu, Surat, Akola, Coimbatore, Bagalkot and Pedam.	1,00,000

12	Parbhani	Saris, check and plain body from 20s to 80s yarn in different designs and colours, silk shameta, silk rumals, from 100s to 150s yarn, silk kud in different colours, silk check musketa, saris of mixed quality of 60s and silk yarn.				1,20,000
13	Gulbarga	Check saris of 20s to 60s yarn, mixed saris with silk 120s yarn, saris of 2/84s mercers yarn and patals of 60s yarn.				3,00,000
14	Omanabad	Coarse, check and plain saris, from 20s to 40s yarn				2,00,000
15	Raichur	Silk saris of plain body in different colours, cotton saris from 20s to 80s yarn, madi punchas of pure silk in different colours.				1,50,000
16	Bidar	Saris from 32s to 40s yarn check and plain body in different colours, check and mixed saris with 40s yarn and silk, silk pitambar of gold lace, square rumals from 80s to 120s yarn having gold lace borders.				2,50,000
		TOTAL				32,50,000

CHART VI.—Statement showing the out put of the yarn of the mills located in H. E. H., the Nizam's Dominions for the years 1929 and 1930 A. D.

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APPENDIX X.—Showing the number of important handloom weaving factories in H. E. H. the Nizam's Dominions, Hyderabad.

Serial No.	Name and full address of establishment.	No. of Looms.		Average wages earned per head per day.	Names of various kinds of fabrics produced.
		F. L.	C. L.		
1	2	3	4	5	6
	<i>Secunderabad.</i>			A. P.	
1	Sheak Ahamad Factory, Bamanwadi, Hyderabad.	..	4	10 0	Himroo, Mashroo and silk coating.
2	Mohammad Siddik Factory, Jambagh, Hyderabad.	3	..	7 0	Twisted silk coating, shirting and saris.
3	Puran Rajayya Factory, Dhoolpet, Hyderabad.	..	8	8 0	} Silk saris, silk susi cloth, tapta cloth and cholkhan.
4	Dewan Narain Factory, Dhoolpet, Hyderabad.	..	9	8 0	
5	Dewan Balasha Factory, Dhoolpet, Hyderabad.	..	8	8 0	
6	Nakur Narain Factory, Dhoolpet, Hyderabad.	..	8	6 0	} Gold laces, Partala and cholkhan borders.
7	Joti Rajanna Factory, Dhoolpet, Hyderabad.	..	4	6 0	
8	Onkari Pintoshado Dhoolpet, Hyderabad.	..	6	6 0	
9	Kota Lingam Sha Factory, Dhoolpet, Hyderabad.	..	8	6 0	} Cotton saris, lungis, shamias, rumals.
10	Chittari Factory, Dhoolpet, Hyderabad.	..	4	6 0	
11	Mekhal Lachayya Factory, Sultanshai, Hyderabad.	7	3	5 0	
12	Mekhal Ramanna Factory, Sultanshai, Hyderabad.	4	4	5 6	} Palkas and cholkhans.
13	Ganji Papaiah Factory, Sultanshai, Hyderabad.	3	2	5 0	
14	Sofa Bandriah Factory, Sultanshai, Hyderabad.	5	2	5 0	
15	Chandriah Factory, Sultanshai, Hyderabad	4	4	5 0	} Twisted silk coatings and shirtings.
16	Amesatar Bolaram Secunderabad, Hyderabad.	6	1	6 0	
	<i>Aurangabad District.</i>				
1	Mohamad Abdul Kadar Factory, Nawabpura, Aurangabad.	..	5	10 6	} Himroo, mushroo (kamkhab) on order.
2	Md. Vazir Abdul Gani, Nawabpura, Aurangabad.	..	10	10 6	
3	Md. Habib Abdul Aziz, Nawabpura, Aurangabad.	..	2	10 6	
4	Md. Tahir Haji Md. Latif, Nawabpura, Aurangabad.	..	14	10 6	} Himroo, mushroo (kamkhab) on order.
5	Md. Vazir Md. Habib, Factory, Nawabpura, Aurangabad.	..	17	10 6	
6	Abdul Vanid Factory, Nawabpura, Aurangabad.	..	5	10 6	
7	Md. Aakil Md. Afzal, Factory, Nawabpura, Aurangabad.	..	5	10 6	

APPENDIX X.—*Showing the number of important handloom weaving factories in H. E. H. the Nizam's Dominions, Hyderabad—contd.*

Serial No.	Name and full address of establishment.	No. of Looms.		Average wages earned per head per day.	Names of various kinds of fabrics produced.
		F. L.	C. L.		
1	2	3	4	5	6
Aurangabad District—contd.					
8	Abdul Majid Khan Md. Khan power Weaving Factory, Nawabpura, Aurangabad.	Power looms 7 Automatic hand power looms 3. Country. 6		12 0	Himroo, Mushroo, mixed saris of art and mercerised silk, twisted silk coatings and shirtings.
9	Fathie Md. Factory, Paithan . . . .					7 0	Mandul, ordinary pugries, 80s, 60s, 100s and 120s yarn.
10	Bamie Miah Factory, Paitahn . . . .	..	8	7 0	
11	Fathi Mohamad Toldi Factory, Paithan . . . .	..	6	7 0	
12	Amda Miah Factory, Paithan . . . .	..	7	7 0	Mandul, ordinary pugries, 30s, 60s, 100s, and 120s yarn.
13	Karim Sahib Dandley Factory, Paithan . . . .	..	9	7 0	
14	Choti Miah Factory, Paithan . . . .	..	5	7 0	
15	Dada Miah Factory, Paithan . . . .	..	5	7 0	
16	Mohamad Sahib Factory, Paithan . . . .	..	6	7 0	
17	Ramaiah Ambaiah Padma, Shali Jalna . . . .	..	25	7 3	
18	Ramaiah Anthayya Factory, Shali Jalna . . . .	..	19	7 3	
19	Venkayya Factory, Shali Jalna . . . .	..	25	7 3	
20	Ramanjayya Binger Factory, Shali Jalna . . . .	..	10	7 3	Striped cholkhans and saris of 20s, 32s, and 40s yarn.
21	Lachmayya Gosji Factory, Shali Jalna . . . .	..	10	7 3	
22	Kishan Romal Factory, Shali Jalna . . . .	..	10	7 3	
23	Limbalah Factory, Shali Jalna . . . .	..	13	7 3	
24	Rajanra Godla Factory, Shali Jalna . . . .	..	8	7 3	
25	Senaiah Godass Factory, Shali Jalna . . . .	..	14	7 3	
26	Gurla Bangiah Factory, Shali Jalna . . . .	..	8	7 3	Striped cholkhans of different designs.
27	Jaganrath Dorkey Sudhshali, Jalna . . . .	..	10	6 6	
28	Ganpat Khandali Sudhshali, Jalna . . . .	..	7	6 6	Striped cholkhans and saris of 32s and 40s.
29	Pandaji Bukni Sudhshali, Jalna . . . .	..	12	6 6	
30	Anand Shah Factory Old Jalna . . . .	..	6	10 0	Silk saris of gold lace border and pullo and ordinary saris, cholkhans, etc.
31	Sheik Chand Momin, Old Jalna . . . .	..	9	5 0	Coarse saris, susi cloth and rumals of 20s, 24s, 30s and 32s.
32	Abdul Razak Momin, Old Jalna	6	..	5 0	
33	Bachu Linhaji Koshly, Jalna . . . .	..	9	6 0	Striped saris and cholkhans of 32s and 40s.
34	Vithalpa Koshly, Jalna . . . .	..	7	6 0	
Parbhani District.					
1	Dokaba Padam Shali Factory, Basmath-nagar.	8	2	7 0	Striped saris with silk, mercerised and art silk borders of 32s and 40s yarn.

**APPENDIX X.—Showing the number of important handloom weaving factories
in H. E. H. the Nizam's Dominions, Hyderabad—contd.**

Serial No.	Name and full address of establishment.	No. of Looms.		Average wages earned per head per day.	Names of various kinds of fabrics produced.
		F. L.	C. L.		
1	2	3	4	5	6
	<i>Parbhani District—contd.</i>			A. P.	
2	Etoba Kanswar Factory, Basmathnagar .	4	3	7 0	Plain body saris and cholkhans mercerised and art silk borders of 32s and 40s yarn.
3	Narain Gadwa Factory, Basmathnagar .	3	5	7 0	
4	Pendam Babalah Factory, Basmathnagar .	10	5	7 0	
5	Danoji Factory, Basmathnagar . .	4	3	7 0	
6	Gangaram Factory, Basmathnagar . .	5	3	7 0	
7	Dhanuji Factory, Basmathnagar . .	5	5	7 0	Silk saris, pitambers and mixed saris.
8	Narain Narshusha Khatri Factory, Basma- thnagar.	..	12	9 0	
9	Lakshman Venkoba Khatri Factory, Basmathnagar.	..	12	9 0	
10	Narain Lakshman Khatri Factory, Basma- thnagar.	..	8	9 0	Silk saris, check cotton saris, plain saris and cholkhans.
11	Dosa Sha Khatri Factory, Basmathnagar	10	5	8 0	
12	Vithoba Khatri Factory, Basmathnagar .	..	7	9 0	Silk saris, pitambers, mixed saris, etc.
13	Venkoba Bhowar Factory, Basmathnagar	4	6	7 0	Check saris, striped saris and cholkhans of 32s and 40s yarns. This man is a dyer by caste and possesses a dye house.
14	Ganapathi Koshti Factory, Manrath . .	..	14	8 0	Mixed check saris, ordinary check saris and plain saris of 32s and 40s yarn.
15	Ganja Pathan Shali Factory, Manrath .	..	25	8 0	Mixed check saris, striped saris of 32s and 40s yarn.
16	Ellappa Shali Factory, Manrath . .	..	20	8 0	
17	Narayan Padhan Shali Factory, Manrath	..	14	6 6	Check and striped saris of 20s and 30s and 24s yarn, and Cholkhans.
18	Balalah Shali Factory, Manrath . .	..	20	6 6	
19	Rajalah Shali Factory, Manrath . .	..	20	6 6	
20	Bhimley Shali Factory, Manrath . .	..	40	6 6	
					N.B.—This man is doing chulti business, i.e., advance yarn and money to other weavers and take the finished cloth from them.
21	Bapu Kartal Khatri Factory, Manrath .	30	10	10 0	Mixed saris having solid border, silk saris and pitamber on order.
22	Vithoba Palka Factory, Manrath .	60	20	10 0	All the looms are distributed among the weavers.
23	Vithal Domaji Factory, Manrath . .	15	10	8 0	Mixed saris, cholkhans, silk saris and pitambers on order.
24	Ganpath Shanker Factory, Manrath .	30	..	8 0	

APPENDIX X.—Showing the number of important handloom weaving factories in H. E. H. the Nizam's Dominions, Hyderabad—contd.

Serial No.	Name and full address of establishment.	No. of Looms.		Average wages earned per head per day.	Names of various kinds of fabrics produced.
		F. L.	C. L.		
1	2	3	4	5	6
	<i>Parbhani District—contd.</i>			A. P.	
25	Narshari Factory, Sainpet Jagir . . .	..	20	7 0	Check saris of silk borders. All the looms are distributed among the weavers.
26	Erbhadra Koshty Factory, Sainpet Jagir .	21	..	6 0	
27	Bhagoji Balaji Watkar Shiekul Shalt, Sainpet Jagir.	..	20	6 0	Check saris of mercerised borders of different designs and cholkhans.
28	Namdeo Landey Bhowasr dyer, Sainpet Jagir.	10	2	6 0	
29	Maruthi Eshnath Bhowasr dyer, Sainpet	..	15	6 0	Check saris of mercerised borders of different designs and cholkhans.
30	Tokaram Kalooram dyer, Sainpet Jagir .	..	10	6 0	
	<i>Nander District.</i>				
1	Narsinga Padham Shali Factory, Nander	5	..	7 0	Coloured saris and cholkhans of different patterns and designs.
2	Narain Padham Shali Factory, Nander .	6	..	7 0	
3	Sheik Hasan Sahib Durrie Maker, Nander	..	20	4 0	Making durries of coarse quality.
		Durrie looms.			
	<i>Nizamabad District.</i>				
1	Lingaji Bhagweshwar Khatri Factory, Armur.	..	70	10 0	Making silk saris, pitambers and Shamias and cholkhans with gold border and pullo and silk runals. Looms are distributed among the weavers and the finished products are taken back paying the wages.
2	Pintoji Rajayya Khatri Factory, Armur	..	100	10 0	
3	Hazari Tokaram Khatri Factory, Armur .	..	75	10 0	The looms are put to work in his factory.
4	Gujrati Chatrapa Khatri Factory, Armur	..	50	10 0	
5	Gaggesh Kashiram Khatri Factory, Armur	..	16	10 0	This man is weaving mostly silk pitambers. Looms are not in one factory but distributed among the weavers.
6	Veda Gangaram Khatri Factory, Armur .	..	10	10 0	
7	Ekanni Ramanna Padam Shali Factory, Ramareddypet.	..	33	10 0	Mixed saris, fine counts of solid bordered grey saris, and check saris of 40s and 50s counts.
8	Rajaram Shali Factory, Ramareddypet .	..	19	10 0	
9	Tanier Lachmlah Shali Factory, Ramareddypet	..	13	10 0	Silk solid bordered saris and punchas.
10	Lingalah Shali Factory, Ramareddypet .	..	12	10 0	
	<i>Bir District.</i>				
1	Md. Abdul Aziz Momln Factory, Bir . . .	5	..	10 0	Check coating, towels of cotton yarn and twisted silk coatings.
2	Syed Sahib Momln Factory, Georal . . .	..	7	5 0	
3	Kadar Miah Factory, Georal . . . . .	..	8	5 0	Making pugris.

APPENDIX X.—Showing the number of important handloom weaving factories in H. E. H. the Nizam's Dominions, Hyderabad—contd.

Serial No.	Name and full address of establishment.	No. of Looms.		Average wages earned per head per day.	Names of various kinds of fabrics produced.
		F. L.	C. L.		
1	2	3	4	5	6
	<i>Medak District.</i>			A. P.	
1	Gandoba Khatri Factory, Jogipet . . .	..	7	10 0	{ Silk saris with gold lace borders, silk mukhtas of ordinary borders, silk anchal with striped goldlace and ordinary cholkhans.
2	Eranna Khatri Factory, Jogipet . . .	..	10	10 0	
3	Chowhan Narasiah Khatri Factory, Sangareddy.	..	25	10 0	{ Silk pitambers, tapta cloth, plain silk saris and cholkhans.
4	Chowhan Venkayya Khatri Factory, Sangareddy.	..	16	10 0	
5	Grigadh Durgalah Padam Shali Factory, Siddipet.	..	4	10 0	{ Making silk saris, pitamber and solid bordered saris.
6	Lakshetty Rajaram Padam Shali Factory, Siddipet.	..	4	10 0	
7	Balesha Khatri Padam Shali Factory, Siddipet.	..	4	10 0	
	<i>Bidar District.</i>				
1	Nallappa Lingayat Factory, Hollikhed . . .	4	1	6 0	{ Coloured saris of mercerised silk borders and cholkhans of 20s and 30s yarn.
2	Rangappa Lingayat Factory, Hollikhed . . .	4	1	6 0	
3	Dansaji Premaji Padma Shali, Bidar . . .	..	4	4 0	Punchas and shamlas.
4	Parasram Padam Shali, Bidar . . .	..	3	4 0	Punchas and shamlas and controls 16 looms distributed among the weavers.
5	Lachmanna Rangrez, Chitguppa . . .	20	..	6 0	{ Ordinary plain saris and cholkhans. Check saris with silk borders.
6	Dasrath Rao Rangrez, Chitguppa . . .	15	..	6 0	
7	Anthayya Padam Shali, Chitguppa . . .	25	..	6 0	Ditto and controls 20 looms.
8	Sayanna Padam Shali, Chitguppa . . .	25	..	6 0	{ Ordinary and check saris.
9	Ramalingappa Padam Shali, Chitguppa . . .	20	..	6 0	
10	Narasappa Padam Shali, Chitguppa . . .	12	..	6 0	
11	Gondappa Lingayat, Chitguppa . . .	12	..	6 0	{ Ordinary plain saris.
12	Karim Sahib Momln, Chitguppa . . .	6	..	6 0	
13	Ghudu Sahib Momin, Chitguppa . . .	6	..	6 0	
	<i>Nalgonda District.</i>				
1	Aarab Narasimloo Factory, Bhongir . . .	3	12	6 0	Making saris, rumal and lungis.
2	K. Narsimloo Hakim Factory, Bhongir . . .	11	2	6 0	Making dhoties, rumal, lungis and saris.
3	Sid Ramagyah Bhandari Alir . . .	20	..	7 0	Making saris hanging fancy borders.

APPENDIX X.—Showing the number of important handloom weaving factories in H. E. H. the Nizam's Dominions, Hyderabad—contd.

Serial No.	Name and full address of establishment.	No. of Looms.		Average wages earned per head per day.	Names of various kinds of fabrics produced.
		F. L.	C. L.		
1	2	3	4	5	6
	<i>Mahbubnagar District.</i>			A. P.	
1	Tokti Narayan Tokty, Narainpet . . . . .	..	35	7 0	Making check saris of mixed quality and ordinary of 30s, 40s and 60s yarn and controls 150 looms.
2	Venkappa Tokty, Narainpet . . . . .	..	20	7 0	Ditto and controls 50 looms.
3	Siddappa Tokty, Narainpet . . . . .	..	12	7 0	Ditto and controls 15 looms.
4	Ramanna Kanakagiri Khatry, Narainpet . . . . .	..	10	9 0	} Making silk pitambers, tapta cloth and mixed check saris.
5	Chinnappa Gondley Khatry, Narainpet . . . . .	..	12	9 0	
*6	Mitty Yellappa Gondra Khatry, Narainpet . . . . .	..	30	8 0	Mixed check saris of different designs and patterns.
*7.	Mitty Thamanna Gondra Khatry, Narainpet . . . . .	..	40	8 0	} Mixed silk saris of different designs and patterns.
*8	Mitty Narappa Gondra Khatry, Narainpet . . . . .	..	20	8 0	
*9	Mitty Poni Chinappa Gondra Khatry, Narainpet . . . . .	..	25	8 0	
*10	Suntky Haji Sahib Momin, Narainpet . . . . .	..	12	8 0	} Mixed check saris of different designs and patterns.
*11	Laley Sahib Momin, Narainpet . . . . .	..	10	8 0	
*12	Mojahid Haji Sahib Momin, Narainpet . . . . .	..	11	8 0	
*13	Pangillgar Haji Subhani Momin, Narainpet . . . . .	..	10	8 0	
14	Karim Sahib Sidem Momin, Narainpet	8	1	5 0	Making bed and floor shutranjis.
15	Kanky Lingappa Kurmisditty, Mahbubnagar	6	3	5 0	} Check saris of solid borders and plain saris of 20s.
16	Pura Palappa Kurmisditty, Mahbubnagar	5	6	5 0	
17	Hannu Sahib Momin, Makthal	7	..	6 0	} Plain saris, check saris, with plain or silk borders of 20s and 30s yarn.
18	Kumna-kaddi Padmashali, Makthal	12	..	6 0	
19	Chenappa Padmashali, Makthal	6	..	6 0	
20	Chenappa Khatry, Ootkur	2	10	6 0	} Check and plain saris with and ordinary borders and rumals.
21	Bhomanna Khatry, Ootkur . . . . .	..	9	6 0	
22	Sirgarnagappa Khatry, Ootkur	2	10	6 0	
23	Narsim Padam Shali, Wattam . . . . .	..	7	7 0	Check saris of silk borders and silk saris.
	<i>Gulbarga District.</i>				
1	Md. Ismail Chuhey Momin, Gulbarga . . . . .	..	15	7 0	Plain or striped saris, mixed cholkhans of 20s, 24s and 30s and he controls 100 looms.
2	Syed Ali Dadey Momin, Gulbarga	4	7	7 0	Ditto and controls 120 looms.
3	Ali Sahib Sabdi Momin, Gulbarga	2	7	7 0	Ditto and controls 115 looms.
4	Haji Syed Nasim Sahib Momin, Gulbarga	5	4	7 0	Ditto and controls 155 looms.
5	Amamu Bhumana Nelgar, Gulbarga	8	2	7 0	Ditto and controls 300 looms.

*(Nos. 6 to 13 are well-to-do people of their own caste, dealing in cloth and yarn.)

**APPENDIX X.—Showing the number of important handloom weaving factories
in H. E. H. the Nizam's Dominions, Hyderabad—contd.**

Serial No.	Name and full address of establishment.	No. of Looms.		Average wages earned per head per day.	Names of various kinds of fabrics produced.
		F. L.	C. L.		
1	2	3	4	5	6
	<i>Gulbarga District—contd.</i>			A. P.	
6	Mallappa Sidhappa Nelgar, Gulbarga	4	..	7 0	} Plain or striped saris, mixed cholkhans of 20s, 24s and 30s and he controls 60 looms.
7	Hanmanthappa Shali, Gulbarga . . . . .	..	8	7 0	
8	Nagappa Martur Lingayat, Kamlapur	7	5	6 0	Check and plain saris.
9	Babari Borappa Khatry, Gudmatkal	22	30	9 0	Check aris, palin saris of silk and mercirised borders of 20s, 30s and 60s yarn. Controls 60 looms.
10	Arsid Rayesa Khatry, Gudmatkal	10	15	9 0	Ditto and controls 40 looms.
11	Kishan Sha Khatry, Gudmatkal	12	18	9 0	Ditto and controls 30 looms.
12	Dhanappa Khatry, Gudmatkal . . . . .	..	10	9 0	Ditto and controls 25 looms.
13	Ellappa Kurmi, Madhole	20	..	8 6	} Grey pattal, coloured saris, having 2/64s mercirised solid borders. Controls 50 looms.
14	Nadappa Kurmi, Madhole	60	..	8 6	
15	Narsappa, dyer, Madhole	12	..	8 6	
16	Vitappa Mahendrakar, Madhole	40	20	8 6	
17	Nagappa Padam Shali, Madhole	12	..	8 6	
					All these looms are distributed among weavers.
18	Tokaram Padam Shali, Madhole	15	..	8 6	} Grey pattal, coloured saris having 2/64s mercirised solid borders.
19	Lakshma Kurmi, Madhole	12	..	8 6	
20	Nelappa Hatkar, Shadpur	8	..	8 6	Fine mixed saris, with 60s yarn of Ilkal pattern.
21	Adkey Chokappa Padam Shali, Kosgi . . . . .	..	15	8 6	} Solid bordered saris of 40s yarn with silk solid or plain borders.
22	Moinuddin Momin, Kosgi	15	..	8 6	
23	Sakim Sahib, Momin, Kosgi	10	..	8 6	
24	Lakshman Khatry, Kosgi . . . . .	..	10	8 6	
25	Karley Ramabori Padam Shali, Bidar, Sholapur.	1	12	8 6	Mixed saris and plain saris of 60s yarn having silk borders of Ilkal pattern.
26	Ramanna Gurappa Tandedi, Padam Shali, Sholapur.	2	8	8 6	Ditto and controls 75 looms.
27	Male Gurappa Coham, Padam Shali, Sholapur.	2	9	8 6	Ditto and controls 75 looms.
28	Tamana Jadar Lakshma, Sholapur	3	9	..	Ditto and controls 60 looms.
29	Dhotri Kobanusu, Padam Shali, Sholapur	2	8	8 6	Ditto and controls 36 looms.
30	Neeli Ranappa Devappa, Kodangal . . . . .	..	20	8 0	Grey pattal of 30s and 40s yarn, mixed check saris of 40s yarn and silk borders and controls 17 looms.
31	Kolappa Tokti, Kodangal . . . . .	..	12	7 0	Check saris with ordinary silk borders of 20s, 40s and 60s yarn.

APPENDIX X.—Showing the number of important handloom weaving factories in H. E. H. the Nizam's Dominions, Hyderabad—contd.

Serial No.	Name and full address of establishment.	No. of LOOMS.		Average wages earned per head per day.	Names of various kinds of fabrics produced.
		F. L.	C. L.		
1	2	3	4	5	6
	<i>Gulbarga District—contd.</i>			A. P.	
32	Abdul Rahiman Momin, Kodangal	10	7 0	Mixed check saris of solid borders and cotton saris of 20s, 30s and 60s yarn. Check saris, plain saris having silk and plain mercerised borders.
33	Nabi Sahib, Kalyan Jagir . . . . .	..	25	6 0
34	Rahimuddin Momin, Jagir . . . . .	..	15	6 0
35	Ahamad Sahib Momin, Jagir . . . . .	..	12	6 0
	<i>Raichur District.</i>				
1	Lakshmana Khatry, Ghat	16	7 6	Saris of 20s, 30s and 60s yarn.
2	Eranna Khatry, Ghat . . . . .	..	10	7 6
3	Venkanna Khatry, Ghat	7	16	7 6	
4	Mohiuddin Momin, Ghat . . . . .	..	16	7 6
5	Nabi Sahib Momin, Ghat . . . . .	..	15	7 6
6	Malappa Hatkar, Maski	10	7 6	Saris of mixed quality of Ilkul pattern. Mixed saris of Ilkul pattern.
7	Tiparam Hatkar, Mamnal . . . . .	..	20	7 0
8	Mariappa Kurumghad, Tawengira	12	7 6	Check saris of mixed quality having 60s yarn silk borders Ilkul pattern.
9	Fakirappa, Tawengira . . . . .	..	10	7 6
10	Milarappa, Tawengira . . . . .	..	10	7 6
11	Raja Sahib Momin, Dotehal	16	7 6	Mixed saris of mixed quality having 60s yarn silk borders, Ilkul pattern.
12	Gandogara Hatkar, Dotehal . . . . .	..	20	7 6
13	Bhosappa Hatkar, Dotehal . . . . .	..	30	7 6
14	Ganpat Sha Devanga Shali, Hawamsagar	12	7 6	60s check saris of mixed quality, coarse grey saris of 20s yarn.
15	Modapur Tirmal Jodar, Gangavathi . . . . .	..	16	7 0
16	Raja Sahib Momin, Gangavathi . . . . .	..	16	7 0
17	Haji Sahib Factory, Alampur	25	7 0	Durri, bed shutranjis and rumals and susi cloth.
18	Haji Ibrahim, Alampur . . . . .	..	10	7 0
19	Maimuddin, Alampur . . . . .	..	10	7 0
20	Redan Cheppa Padam Shali, Yergna	50	5 0	Grey punchas of 20s yarn.
21	Gel Bhandaram, Padam Shali, Yergna . . . . .	..	25	5 0
22	Sedam Rama, Padam Shali, Yergna . . . . .	..	25	5 0
23	Gadappa, Padam Shali, Yergna . . . . .	..	25	5 0
24	Molashi Sahib, Momin, Yergna . . . . .	..	60	5 0
25	Vali Moluddin, Momin, Yergna	4	26	5 0	Check saris of mixed quality of Ilkul pattern.
26	Fakirappa Devanga Shali, Kinhal Jagir . . . . .	..	12	7 6
27	Shenkarappa Devanga Shali, Kinhal Jagir . . . . .	..	20	7 6
28	Elbargi Bosappa Devanga Shali, Kinhal Jagir . . . . .	..	12	7 6
29	Papanna Devanga Shali, Kinhal Jagir . . . . .	..	12	7 6

APPENDIX X.—Showing the number of important handloom weaving factories in H. E. H. the Nizam's Dominions, Hyderabad—concl'd.

Serial No.	Name and full address of establishment.	No. of Looms.		Average wages earned per head per day.	Names of various kinds of fabrics produced.
		F. L.	C. L.		
	2	3	4	5	6
				A. P.	
	<i>Omanabad District.</i>				
1	Ladley Sahib Mangli, Aeosa . . .	9	..	5 0	} Coarse saris and rumals and pugris.
2	Mohamad Sahib Boral, Aeosa . . .	9	..	5 0	
3	Ladley Sahib Momin, Parenda . . .	12	..	8 0	} Saris and check cholkhans of 20s and 30s yarn and controls 10 looms.
4	Mohamad Hanif Momin, Parenda . . .	13	..	8 0	
5	Khuda Baksh Momin, Parenda . . .	9	..	8 0	} Saris and check cholkhans of 20s and 30s yarn, and con- trols 25 looms.
	<i>Warangal District.</i>				
1	Jam Mohamad Monin, Mathwada . . .	..	12 carpet.	6 0	} 5 looms are engaged in making bed shutranjis and 7 looms in making pile carpets.
2	Md. Khaja Momin, Mathwada . . .	..	12	6 0	
3	Damaddi Rajanna Khatri, Mathwada . . .	..	20 country.	7 0	} Making silk saris of different designs.
4	Xengla Ramchandram Padam Shall, Guma- jipet.	..	10	6 0	
5	Vannongeli Ramchandram Padam Shall, Gumajipet.	..	10	6 0	} Making check saris of different designs and rumals and has 15 looms under control.
	<i>Karimnagar District.</i>				
	<i>Nil.</i>	<i>Nil.</i>	<i>Nil.</i>	<i>Nil.</i>	<i>Nil.</i>
	<i>Abdulabad District.</i>				
	<i>Nil.</i>	<i>Nil.</i>	<i>Nil.</i>	<i>Nil.</i>	<i>Nil.</i>

CHAPTER XIII.—GAZETEER.

A brief description of the important weaving centres in H. E. H. the Nizam's Dominions.

Aurangabad.—This city is situated on Meter Gauge H. G. V. Railway and is the headquarter of the Subedar. The principal cottage industry of Aurangabad is the weaving of Mishroo, Himroo, and Kankhoab. At one time, it is said, this industry afforded a livelihood to more than 150 families and was largely patronised by the Mohammadan aristocracy, and the more well-to-do people, but now these fabrics are purchased on the marriage occasions only. Himroo is generally used for sherwani and waist coats. Mishroo is used by Muslim and Hindoo ladies for their full trousers and lehngas respectively. There are at present only 7 factories in Nawabpura, where the famous cloths of Aurangabad are made on the primitive types of handlooms, fitted with draw boy harnesses. The common counts of yarn used as warp and weft are 2/80s bleached mercerised and 20s respectively, 2/40s twisted silk and 150, 200, and 300 denier artificial silk are used as extra weft in figuring the cloth, pure silk is also used as extra weft figures in costly cloth.

Raw material is obtained direct from Bombay by the factory owners, and dyed by themselves with direct and Basic dyes. Pure silk used in Mishroo cloth is not dyed by them, but is given to dyers for dyeing. The workmen are paid according to the nature of the work.

There is one electric power driven concern in Nawabpura lane, owned by Abdul Majid Khan Mohammad Khan, equipped with 8 power looms and 2 automatic hand power looms, 5 jacquard machines and 2 dobbies. They produce Himroo, Mishroo, silk coatings and shirting cloth.

Beside these factories there is one small factory by name Anjuman Tarikia Dustkari, Ltd., the factory is a khaddar organisation and is striving to promote the hand spinning industry. Apart from Himroo and Mishroo weaving, grey and coloured pugris are also woven by Momins here. There are about 160 families; of this caste of these only 10 families are engaged in weaving with 30 pit looms. These pugris find a local market in the marriage season alone.

About five years back gold and silver threads also made in Aurangabad and there were 7 factories. But at present only one factory is in existence. All the workmen left the place for Yeola.

Gotta lace is also manufactured by 8 families of Khutries. Gotta pullo and zunjira are the chief things made, on a primitive type of machine known as chowki. There are 30 such chowkies near Paithan Darwaza. The raw materials is supplied by Gotewalas and the finished goods are taken back paying their wages. Gota is generally exported to Jalna, Parbhani, Hingoli, Manwat and Bhir.

Armur, District Nizamabad.—This kusba is approximately 17 miles distant from Nizamabad Station. The population of the town as per census is 7,274 of whom 2,130 are weavers. They are of castes known as Khutry, Koshty, and Padma shali. There are about 1,675 country looms.

Handloom weaving of this Kusba may be divided into two chief classes, cotton weaving and silk weaving. Cotton fabrics are manufactured by Padmashali and Koshty weavers, while the silk weaving is mainly carried out by Khutris. Cotton fabrics consist of coloured saris, grey dhotis and romals. White silk fabrics consist of pitambers having diamond and half diamond lace borders, and lace pullo. Lace is introduced in borders and pullo in a lavish scale. Surat lace is used in borders, and French lace is used in pullo. The weaving of pullo is particularly skillful; plain white silk shamlas, and coloured silk cholkhans are also woven to some extent.

Raw material is supplied by local sowcars. The finished products generally find a ready market at spot, a great portion of the silk fabrics is purchased by the local sowcars, who send them to Nizamabad, Bidar, and are also purchased by sowkars who often visit this place.

There is no dyer in this village. The silk is dyed by the weavers themselves in 4 shades, chocolate, yellow, red and green. Red colour is dyed with kirmanji dana and the rest with direct colours. Cotton yarn is also dyed by the weavers themselves. The most popular colours for dyeing cotton yarn are alizarine red, and vegetable indigo. About 10 families have got indigo vats in their homes. A gold thread factory is recently started by a sowcar weaver named Pintoji Dutatryia with improved machines.

Alumpur, District Raichur.—This town is about 8 miles distant from Alumpur Road Station on S. D. Railway. The town contains a fort and a large number of temples and is famous for its floor and bed durris; the population of the town is 54,244; of which 550 are weavers with 244 old country pit looms. Of these 16 per cent. are engaged in weaving floor and bed durris and the rest 84 per cent. are engaged in weaving coloured saris, check, and chutki romals, and sosi cloth. They belong to Momin, Kurmi and Padmashali castes.

Raw material is obtained by the weavers themselves from Kurnool and the finished products are sold locally, or in the neighbouring villages by the weavers themselves or at times taken to Kurnool and sold direct to cloth dealers. There are 3 shatranji factories in town by name (1) Haji Sahib mean, (2) Haji Ibrahim, and (3) Moinuddin's factory. There is no professional dyer in this town. Dyeing is only done by the weavers themselves and by the factory owners. The main dyes used are alizarine red and vegetable indigo.

Alir, Taluka Jangaon, District Nalgonda.—The village is about 1 furlong from Alir Station. There are two weaving factories in Alir owned by Agayya Sriram Bhandari and Sidram Inkuppa Gujeir with 50 and 20 fly shuttle looms respectively. Cotton saris of fine quality with beautiful borders are manufactured in these factories. 60s and 100s yarn is generally used. Pure silk, artificial silk are used in borders. Gold lace is also used to some extent. The raw material is obtained direct from Bombay, and dyed in the factory with Napthol. and alizarine dyes, direct and sulphur colours are also used to some extent. The finished goods are exported to Nizamabad, Nander, Parbhani, Umri and Hyderabad.

Aosa, Taluka Latore, District Osmanabad.—Aosa is about 14 miles from Latore Station. The cotton weaving industry is mainly carried out by Momins, with 525 fly shuttle looms. The total number of weavers is 1,325. Grey khadi, check romals and cholkhans of mixed quality (*i.e.*, admixture of artificial silk and cotton) are the chief products of these looms. Besides these about 325 throw shuttle looms of small size are also in use, for manufacturing grey pugris but these looms are only used in marriage season. Grey yarn is purchased locally and coloured yarn of red and black colour is obtained direct from Sholapur by the master-weavers. Cotton yarn of 20s and 16s, artificial silk of 300 denier is generally used. Artificial silk is dyed by the weavers with direct colour. There is no dyer in this kusha. A good portion of the finished goods are sold by the master-weavers in the neighbouring villages or in weekly bazaars. Coarse woollen blankets are also made by Dhungers. There are 25 families of Dhungers, each family engage a primitive type of loom. Preparatory processes are performed by their women. The wool is obtained direct from sheep. Each family possesses a great number of sheep.

Ankshapur, Taluka Bhongir, District Nalgonda.—Ankshapur was the jagir of the late Raja Shivaraj Bahadur. The town is situated at a distance of two miles from Bhongir Station on the N. S. Railway (Broad Gauge).

There are about 155 padmashali weavers engaged in weaving coloured saris, grey dhoties and check romals of 20s yarn, employing 70 country and 10 fly shuttle looms. Majority of the weavers purchase their raw material from the merchants of Secunderabad and return their finished goods to them alone.

Amangal, Taluka Kulvakurthi, District Mahaboobnagar.—This village is about 16 miles from Kulvakurthi. The population of the place is 4,045; of whom 268 are on weaving and the processes connected therewith. Weaving industry is carried out by Padmashali and Melwar weavers consisting about 57 families with 150 country looms.

About 10 families of Padmashalis are engaged in making costly silk saris known as pitambars and silk shamlas. Ornamental work of all kinds with figures of birds and flowers are finely woven in borders and pullo, with gold lace. The quality of the cloth is coarse, and the colours are very gaudy.

A silk pitambar of 16 cubits by 45 inches costs O. S. Rs. 65 to Rs. 120. Draw boy harness is used for making floral designs, and about 15 looms are engaged in this work. The rest are making solid bordered saris and dhoties of 30s and 40s yarn. (Gold and silk is used in borders) grey khadies and plain dhoties are also woven to a great extent.

Raw material is supplied by the local sowcars and the finished goods are sold locally or in the neighbouring villages. Silk pitambars and shamlas go as far as Kulvakurthi and Nagar kurnool. Cotton yarn and silk is dyed by the weavers themselves with alizarine and direct colours respectively. The cotton yarn of fast colours is imported ready dyed.

Bidar, Shorapur, District Gulburga.—From the station Yadgir on G. I. P. Railway a road leads to Shorapur, the headquarters of Tahsildar, 24 miles distant. Rungumpet, Timmapur, Yenkatapur, Rakmapur, Sultanpet and Lukshapur are the places where cotton weaving is the most important of all cottage industries. All these places are at close quarters and situated near Shorapur hill.

The chief class of people engaged in this industry are Momin, Padmashali, Lingayet, Hutkar, Shukul Shali and Joder. Check and coloured saris both of coarse and finer yarn are woven 20s, 30s and 60s yarn is generally used. Mixed varieties of cloth in which the silk and 40s and 60s yarn have been used in check designs of attractive colours having silk pullo engage. The main part of the industry in two villages, i.e., Rungumpet and Timmapur.

The population of the weavers in these places is about 3,742 maintaining 2,280 country and 101 fly shuttle looms. There are 9 cotton and silk dealers in these places who supply the raw material to weavers for cash and credit. Cotton yarn is procured direct from Bombay, Sholapur and Barsi while the silk is obtained from Bagulkot and Honnabad. Fine fabrics are taken by beparies or by sowcars who export them to Gulburga, Parbhani, and Raichur in the Nizam's Dominion, Poona, Sholapur, in British India, while coarse fabrics are consumed locally or in the neighbouring villages by labouring classes. The industry of dyeing is carried out by 18 families of dyers. Indigo is the most popular colour used here. Kirminji dana basic and direct dyes are used for dyeing silk.

Bhongir, District Nalgonda.—The town of Bhongir is situated at the foot of a fortified rock. Bhongir town is unimportant trading centre and is celebrated for its manufacture of pottery. It is the headquarters of Tahsildar and of the second Taluqdar. There are about 115 Padmashali weavers with 46 country and 14 fly shuttle looms. Besides there are two small factories in this town employing 13 and 15 looms respectively. All these looms are engaged in weaving coloured saris, check and chutki romals, grey dhoties and bed sheets of 10s to 60s yarn.

The yarn is purchased locally and from Secunderabad. The finished goods are taken by local merchants, or taken as far as Secunderabad by the weavers.

There is no dyer in this town. The yarn is dyed by the weaver themselves. Alizarine red, Napthol red and aniline black are the colours generally used.

Bid, District Bid.—This town is about 64 miles from Jalna and is the headquarters of the 1st Taluqdar and Tahsildar.

The total number of weavers in this town may be about 2,600 belong to Momin, Koshty, and Shali castes with a few Hutker, Kurvar, Pulvanery and dyer weavers. All are engaged in weaving coloured saris of stripped body, with cotton and silk borders, employing 280 country and 32 fly shuttle looms. Besides these 250 country looms of small size are also engaged in producing grey and coloured pugris. More than 60 per cent. of the yarn consumed for weaving is of 10s, 20s, 32s and the remaining 40 per cent. consists of 40s and 60s. The finished goods are sold locally or given to the village sowcars for sale.

There are 12 local yarn dealers in this town; The yarn is supplied to the weavers for cash, but mostly for credit. Most of the yarn used is obtained ready dyed. The blue colour is dyed locally and this is exclusively dyed with indigo by fermentation vat process. Natural indigo is much favoured. There are 35 families of dyers, Bhowsar by caste. Of these only five families are on dyeing.

Basmathnagar, District Parbhani.—The town is on Purna-Hingoli Railway Branch and is the headquarter of Tahsildar. The population is 11,420 of whom about 3,832 or 34.43 per cent. are cotton and silk weavers. They are of caste known as Padmashali, and Khutry with a few Bhowsar, Momin, and Nerali weavers. The number of handlooms is 1,991; of which about 557 are fitted with fly shuttle sleys and dobbies. The main fabric manufactured here are saris of different designs and patterns. Silk pitambars are also manufactured and about 15 looms are engaged in this work.

The yarn is supplied by the local yarn dealers, 9 in number. The yarn is obtained from Bombay and Nander. The finished goods find a ready market at spot as the place is generally visited by beparies, and hawkers, who collect their goods from house to house visitation.

There are 80 families of dyers, Bhowsar by caste; of whom 24 families are on dyeing, synthetic indigo, direct, and Naphthol red, are the only colours used. The other dyes are unknown to them. Besides these dyers few weaver also dye their own yarn. There are 3 dyeing factories in the town owned by dyers, where the yarn is dyed on a large scale employing labourers.

Chanderki, District Gulbarga.—This town is about 3 miles from Gud-mutkal (no road). There are about 147 families of weavers of different castes known as Kromjhar, Momin, Kutkar, Khatry, and Padmashali engaged in weaving of grey and coloured fabrics such as dhotis and saris of 20s, 24s and 30s yarn. About 147 families are engaged in this art employing 26 country and 162 fly shuttle looms. There are 8 yarn dealers in this town who supply yarn and money as advance to these weavers, and take back their finished goods. There are 10 families of dyers here; who dye yarn on a small scale. The main dyes used are natural indigo, sulphur indigo and alizarine red.

Chincholi, District Gulbarga.—The town is about 28 miles from Tandore Railway Station on the N. S. Railway (Broad Gauge) and is the headquarter of Tahsildar, with a population of 4,013; of whom 300 are cotton weavers. The number of handlooms is 65 of these 23 are fitted with fly shuttle sleys. Grey fabrics are generally woven using 10s, 20s and 30s yarn.

Chitguppa (Mominabad), District Bhir.—Fourteen miles south of Purli on Parbhani-Purli Railway is Mominabad. The population of this town is 8,551; of whom 1,565 are weavers of Padmashali caste with a few Lingayat, Hutkar, Momin. All are engaged in weaving grey dhoties and coloured saris employing 513 fly shuttle looms fitted with dobbies.

Raw material is supplied by the local sowcars. The finished product is sold in the neighbouring villages by the sowcars or independent weavers. on bazar days, or at times taken by dealers. The art of dyeing is carried on by 7 families of dyers; Sulphur black, Sulphur indigo and Naphthol red are the colours generally used.

Chundoor, Taluka Shurki (Surfi Khas).—Chundoor is about 59 miles from Hyderabad (no road). The population of this town is 6,450; of whom 1,800 or 27·90 per cent. are weavers of Padmashali caste. About 475 looms are employed in weaving; of these 35 looms are fitted with fly shuttle sleys. Grey dhotis, grey and coloured saris are chiefly woven on fly shuttle looms, while grey solid bordered dhoties and solid bordered saris are woven on country looms. The number of yarn used is 10s, 12s, 20s, 30s and 40s. About 10 country looms are employed in weaving silk pitambers and silk cholkhans, with gold lace border. The quality of the cloth is very poor. About 10 families of the weavers are rich enough, to supply the weavers with yarn and dye-stuffs. The finished goods are also taken by them. There is no separate class of dyers in this town. The dyeing of cotton and silk is done by the weavers themselves. Alizarine paste is only the colour used for red, while black shade is obtained by mixing Hada and Kasis (*i.e.*, Myrabolum and ferrus sulphate with alizarine paste) direct and basic dyes are used for dyeing silk.

Devdurg, District Raichur.—This town is the headquarter of Tahsildar. The population is 6,654 of which 975 are the weavers belong to the caste of Momin, Lingayat, Jodder, Hutker, Padmashali and Tokty. All are engaged in weaving plain and check saris, cholkhans, and romals. Few of the looms are employed in weaving, coating, shirting cloths and grey khadi employing 252 country and 43 fly shuttle looms. The common counts of yarn in use are 20s, 24s, 30s and 40s, and 2/64s mercerised. Raw material is obtained from local yarn dealers. Yarn is imported from Adhoni. Few of the weavers draw their supply direct from Rungumpet and Sirvar, about 20 miles from this town. A considerable portion of the produce consumed locally or in the neighbouring villages. Few weavers can dye their own yarn with alizarine. Most of the yarn is obtained ready dyed from Rungumpet.

Dotcyhall, Taluka Koshtgy, District Raichur.—This village is about 10 miles from Koshtgy. The population is 1,125; of which 800 are the weavers of the following castes:—Momin, Hutket, Padmashali, Tokti, Kromjhar and Ligayet. About 250 country looms are employed in weaving mixed variety of cloth (*i.e.*, admixture of cotton and silk) of 60s yarn, having tope pullo and Ilkul pattern borders. Few of these looms are engaged in weaving coarse cloth such as saris and dhoties of 16s and 20s yarn.

Saris of mixed quality are taken by Ilkul dealers. The raw material is supplied by these sowcars. The weavers are very much handicapped in dyeing. Even common dyes are unknown to them.

Devarkadra, District Mahboobnagar.—Devarkadra is a small village on S. D. Railway. The only industry in this village is of wool weaving, which is carried on by Kurvolos, *i.e.*, a sub-caste of Dhungers. There are about 72 houses of these Dhungers consisting of 300 people. Tending of sheep, and blanket weaving is their hereditary profession. Few of them possess some land and carry on agriculture as their secondary occupation. 45 families with an equal number of looms are engaged in weaving wool blankets. The preliminary processes are performed by their women.

Devarkonda, District Nalgonda.—This town is about 36 miles from Nalgonda and is the headquarter of Tahsildar. A motor service has been established between Nalgonda and this town. There are about 250 families of Padmashali weavers with 400 country looms, engaged in weaving grey and coloured coarse fabrics, such as dhotis, saris, and romals, count 10s, 12s, and 20s are being used. Few families are on weaving silk bordered cotton saris and silk solid bordered dhotis using gold lace in border. The finished goods find a market at spot. Cotton yarn is dyed by the weavers themselves with alizarine red, aniline black, while basic and direct colours are employed in dyeing silk yarn.

Georai, District Bhir.—This town is about 12 miles distant from Bhir (on Bhir and Jalna Road). There are at present 188 country looms in all, engaging about 370 people; they belong to several castes known as Momin,

Koshty, Bhoswar and Dhunger. Coloured warp stripped saris, coarse red and grey pugris, are the chief fabric woven by them. Artificial silk is generally used in the borders of a sari. The raw material is supplied by the local yarn merchants and is obtained from Jalna. Artificial silk of 150 denier is obtained from Manvat. Finished products are either purchased by the local cloth dealers, or taken in the neighbouring village on bazar day for sale by the weavers themselves. There are 6 dyer families out of which 3 families are engaged in dyeing yarn with natural indigo. The other dyes are unknown to them.

Gangavathi, District Raichur.—Gangavathi is the headquarter of Tahsil-dar. The population of this town is 6,568 of which 930 are the weavers with 478 looms engaged in weaving cotton fabrics, such as check saris, cholkhans, grey dhotis, of 20s and 30s yarn. Few of the looms are employed in making mixed fabrics of fine quality such as saris with silk and cotton in check pattern having silk border of Ilkul design. Raw material is obtained locally. It is stated that 50 per cent. of the finished cloth is consumed locally or in the neighbouring villages, and the rest goes outside such as Gudag and other parts. There are 10 houses of dyers in this town. They are all in employ of master weaver of this place. Alizarine red, natural indigo and sulphur indigo are the colours used by them.

Gulbarga.—This city is situated on G. I. P. Railway and is the head-quarter of the Subedar. About 5,258 people are engaged in weaving and dyeing. Of these 2,425 are the actual workers. The bulk of the weavers belong to Momin caste (Musalman) with a few Khutry, Nelgur, Shukulshali, Hutkar, and Padmashali weavers. There are about 2,400 looms; of these 716 are fitted with fly shuttle. The main fabrics woven here are coarse coloured saris, either plain or stripped body, and check cholkhans, with a very small proportion of grey saris with red solid borders known as patal. The counts of yarn used are 16s, 20s, 24s, 30s, and 2/64s mercerised is used as warp and artificial kind of cloth generally known as Gulzar or Gugunmal. 2/64s mercerised is used as warp and artificial silk in weft. It is said that formerly this special cloth was made of pure silk; now a days artificial silk is mostly used. It is also said that silk twisting industry was carried on here on a large scale by Khutry weavers. But at present only 3 factories are in existence equipped with 10 single spindle twisting wheels and 50 multi twisting spindle wheels. Raw silk is obtained from Bangalore and from Bengal. There are 5 big yarn dealers who supply raw material to these weavers. The finished goods are sold locally or taken by hawkers. The place is also visited by outside dealer. Newar is also woven by 12 families of Mohammadans known as Patwegar; each of them maintain a shop in bazar. Their women are making newar and putty in their houses.

The dyeing industry is carried out by Nelgars. There are 28 families of these dyers. Only 3 dyers are working independently. Napthol red, Natural and Sulphur indigo are dyes used by them.

There is a small factory in Mominpura, owned by Sayed Mir, where fly shuttle sleys and dobbies are manufactured. The factory was established in the year 1334 Faslī.

Hanumsagar, District Raichur.—This village is about 15 miles distant from Kushtigi (no road) leading to this village. There are 700 weavers of different castes known as Dewangshali, Khutry, Momin, Chowhan Joder, with 300 looms. The fabrics woven here may be divided into 2 heads, (1) weaving of mixed fabrics, i.e., with cotton and silk in check pattern such as saris. (2) weaving of pure cotton cloth such as check saris of 20s yarn and cholkhans of 40s yarn. The yarn is obtained from local sowcars of their own caste, silk is obtained from Ilkul. The dyeing industry of this place is very poor. Only 2 local sowcar weavers are dyeing yarn for their own use, with alizarine red, and natural indigo; most of the yarn used for weaving is obtained ready dyed from Ilkul.

Hasanpurthy.—This village is about 10 miles distant from Kazipet Railway Station and about 4 miles Hasanpurthy Road on K. B. Railway. The main metalled road from Warangal to Karimnagar passes close to the village. There are about 1,218 weavers of different castes known as Dewang, Dasri, and Padmashali. The weaving industry of this village may broadly be divided under three heads, (1) Tussar weaving, (2) mixed cloth, *i.e.*, cotton and artificial silk weaving, and (3) pure cotton weaving. The weaving of Tussar cloth is chiefly done by Dewang weavers of Lingayet caste, 64 country looms are engaged in weaving tussar saris and punchas known as muktas. Tussar shamlas are also woven. This cloth is mostly used by orthodox Hindus, during their religious and other ceremonies. Therefore the cloth find a ready market at spot. About 25 families of Dasri weavers with 16 country looms are making check saris and check cholkhans having 2/64s mercerised in warp and 150 deniers art-silk in weft.

About 150 families of Padmashali weavers with 212 country looms are making plain and check saris of solid borders of Mysore pattern and solid border punches having grey body and red silk borders, using 30s and 40s yarn. 20s and 60s also used to some extent.

Tussar silk-worm is not reared in this village, but Tussar cocoons are obtained from Mahadevpure and Chunnoor in Karimnagar District and from Bijoor in Adilabad District and also procured from Bhopulpulnum and Muder in Madras Presidency and from Chaibasa in Singhbhum District, Behar. Tussar silk is dyed by the weavers themselves with plas flower. The yarn for border is dyed with Kirmanji dana.

Dyeing industry is carried on here by two classes of dyers, *i.e.*, Durzi (tailors) and Varlore; altogether there are 45 families. Alizarine red is the main coloured dyed by them. Few of them use indigo, naphthol, and basic dyes.

Hullikhed.—This village is in the Paigah Jagir. The population is 6,515; of whom 1,535 are engaged in weaving and the processes connected therewith. Tussar silk is dyed by the weavers themselves with plas flower. The yarn There are 335 fly shuttle and 35 country looms in all.

Most of the fabrics woven are in greys, such as Khuddar cloth and dhotis, with a small proportion of coloured saris and cholkhans. The cloth generally find market locally. Dyeing industry is carried on by 20 families of dyers known as Neelgurs. Before introduction of modern dyes all these families were engaged in dyeing with natural indigo, but at present only 5 families are engaged in dyeing. Sulphur and naphthol dyes are used for dyeing cotton yarn, while basic and direct dyes are used for dyeing silk.

Hyderabad City.—This is the capital of Hyderabad State, the Dominions of H. E. H. the Nizam of Hyderabad. The city was founded in 1589 by Mohammad Kuli Kutubshahi, the Fifth King of Golconda and was known as Bhagyanagar after Bhagyamati a favourite mistress of the founder. The handloom industry in this city is mostly carried out by Khatry and Padmashali weavers in different Mohallas like Dhoolpet, Goshacunta, Sultan Shahi, Lall Durawaza, Kabadigoda, Sarunagar and Shahnagar. The weaving may broadly be divided into three chief classes. Silk weaving, cotton weaving and weaving of gold lace borders—silk weaving has been in existence in only two Mohallas, *i.e.*, Dhoolpet and Goshkut done by Khatry weavers employing 85 country looms. Cotton weaving is carried out in 5 Mohallas, *i.e.*, Sultan Shahi, Lall Durawaza, Kabadigoda, Sarunagar and Shahnagar. About 150 people in all are actually engaged in this art, maintaining 125 looms; of these 64 looms are fitted with fly shuttle sleys. They are engaged in weaving khadi cloth, coarse saris, rumals, shamlas, lungis and patkas using 16s to 40s yarn; 2/84s mercerised yarn is also used to some extent. While gold lace weaving is carried on in five mohallas, *i.e.*, Dhoolpet, Goshacut, Sahokari Karwan, Amlepur and Kabatur Khana by Khatry weavers maintaining 300 chokies. Beside gold lace weaving gold thread work is also

in existence in this city and at present only four families are engaged in this work. Their names are as follows:—

Syed Fazullullah, Tarkish Mohulla, Chouk Hyderabad.

Burkatullah, Tarkush Mohullah, Punjeshah.

Avali Yenkuia, Tarkish Mohulla, Tarlagudda.

Chumnoo, Yenkia Mohulla, Tarlagudda.

Gold lace, *i.e.*, Kalabutto is not made by them. Only drawing and flattening of gold wire is done. Gold wire known as Mukesh is obtained from Soorut, and drawn here, *i.e.*, further reduced in thin wire and flattened (flat gold is known as Badla).

Garment dyeing and block printing industry is mostly carried out in this city by a class of people known as Rungriz and Chipies. Very few dyers are engaged in dyeing cotton and silk yarn. It is most dyed by the weavers themselves with aniline black, naphthol red, and alizarine red, while silk yarn is dyed with the basic and direct dyes.

The printing is usually done in two colours, *i.e.*, fine deep red, and black. Some more colours such as dark green blue and yellow are also employed but they are not fast. About 30 families in all are engaged in this art in different Mohallas such as Begumbazar, Hosentialum, Yakootpura, Charminar and Noorkhan bazar.

Jalna.—Jalna is the chief commercial centre of Aurangabad District on H. G. V. Railway (Meter gauge). This is probably one of the most ancient cities in this part of the Deccan. Rana's wife Sita is supposed to have resided here in the days when Jalna was known as Janakpur. Subsequently which was converted into Jalna, at the wish of a rich Momin weaver. It is the headquarter of the Assistant Talukdar. It is said that some 8 years back about 5,000 weavers were engaged in the art of weaving in this town, but at present only 1,591 people are engaged in weaving, and the processes connected therewith. They maintain about 821 country and 14 fly shuttle looms. The chief class of people engaged in this industry are Padmashalis and Momins with a few Koshty, Khutry and Gujrati weavers. The main fabrics manufactured here are cotton stripped saris of 20s and 24s yarn.

Silk saris with diamond and half diamond designs in lace borders and of gold lace pullo having somewhat Paithan design are woven to some extent. Silk border cotton cholkhans of 20s and 32s yarn, Sosi cloth and grey khady is also woven by Momin weavers.

There are 100 families of dyers, all Bhowsar by caste. Of these only 30 families are engaged in dyeing cotton yarn, using sulphur, indigo. The other dyes are unknown to them. Basic and direct dyes are also used for dyeing silk yarn. There are 4 houses of Gujrati weavers with five primitive kind of looms. They are weaving silk chutki saris with floral designs. Ready dyed silk thread for warp and weft is obtained from Soorut and the finished cloth is returned there. It is said that these saris are exported to Janu.

Jogipet, District Medak.—This town is in Medak District and is about 51 miles distant from Hyderabad, connected with the metalled road. A motor service has been established between Hyderabad and Jogipet *via* Sangareddy.

The class of people engaged in weaving are Padmashalis and Khutrys. About 100 Padmashali weavers with 120 country looms are engaged in weaving coarse saris of 20s and 30s yarn. 12 families of Khutry weavers are engaged in weaving silk pitambers employing 17 country looms. Raw material is supplied by local merchants and the finished goods are sold locally to the wholesale dealers, who generally visit this place on bazar day.

Silk is dyed by the weavers themselves with basic and direct colour while cotton yarn is dyed by the dyers who are four in number; alizarine red, sulphur black and naphthol red are the dyes used by them

Vegetable indigo is also used to some extent. All these dyers are independent workers in sense that they purchase their own yarn and after dyeing supply the weavers.

Jugtyal.—This town is in Karimnagar District about 20 miles from Karimnagar, and is connected with the metalled road. It is the headquarters of Tahsildar. A motor service has been established between Karimnagar and this place. The weaving industry is carried on by a class of people known as Padmashali. About 108 families maintaining 175 country and 18 fly shuttle looms are on weaving solid border saris, grey dhoties and check romals. Weaving of mixed fabrics with cotton and silk such as saris and upunas having pure silk border with gold lace is also done on a small scale and 45 families with 60 looms are engaged in weaving this kind of fabric. Pure khaddar of hand spun yarn is also woven here and about 8 families are engaged in this work. There are 20 petty yarn dealers, who supply raw materials to these weavers. The finished goods are sold by the weavers themselves, in the neighbouring villages as hawkers or taken by the local merchants.

Hand spinning is also carried on here as a subsidiary occupation by the women of agricultural classes, and by Padmashali women. There are about 80 hand charkas in this town.

Each weaver knows alizarine dyeing. They dye their own yarn, but indigo blue is dyed by local dyers. At present there are 2 families of Nelgurs, tailors by caste. Tailoring is their main occupation. Hand block printing is also carried on here by 21 families of printers. They generally print jazum, razar, jainamaz and lambadi cloth (if the cloth is supplied to them). They are very poor and cannot afford to purchase cloth to carry on their work independently. Black and red are the colours printed by them with alizarine and iron black.

Kinhal.—This village is about 8 miles distant from Kopbal Station, Gudug Railway, and is in the Jagir of Nawab Salar Jung Bahadur. About 500 weavers employing 477 looms are engaged in the art of weaving. They belong to several castes such as Devangshali, Padmashali and Momin. There are two local yarn dealers who supply yarn to the weavers for cash and credit. The weaving industry is entirely in hands of sowcar weavers, who supply them with yarn and take back their finished goods, as long as the market is favourable they give work to these weavers; but in slack season they also curtail their advances. The yarn used here is obtained from Gudug. The main fabric woven are saris and cholkhans of mixed quality using 60s and 40s yarn with silk in check pattern having Ilkul borders and tope pullo.

The dyeing industry is carried out by 2 families of dyers, Pawar by caste. Cotton yarn is dyed with alizarine paste and silk with basic and direct colour. The method of dyeing with alizarine is not satisfactory.

Kosgi.—This kusba is in Gulburga District and about 18 miles distant from Mahaboobnagar and about 10 miles from Kodungal and is the Jagir of Nawab Salar Jung Bahadur.

About 376 families employing 1,900 looms are engaged in the art of weaving. 365 looms are fitted with fly shuttle slays. They belong to the caste of Padmashali, Jondra, Hutker, Momin, Tokti, Nelgur and Khatri. The main fabrics woven by them consists of solid bordered dhotis, known as pattal, solid bordered saris and silk border cholkhans of 40s yarn. Silk cholkhans with lace borders are also woven to some extent.

Raw material is supplied by local yarn merchant and cotton yarn is obtained from Bombay, while silk is obtained from Kodungal and Gulburga. The principal market for these goods are Nander, Bidar and Sadasivpet. The place is often visited by outside dealers to make their purchases. There are 35 families of dyers; of these only 15 are engaged in the art of dyeing, alizarine red, naphthol red and sulphur black are the dyes generally used.

Kodungal.—This kusba is in Gulburga District and is the headquarter of Tehsildar. The population of the place as per last census is 5,184; of

whom 501 are the weavers of Tokty, Khatry, Padmashali, Jondra and Momin castes employing 290 looms, of these 6 are fitted with fly shuttle slays. The weaving of this place may be divided into five heads:—

1. Weaving of check saris of mixed quality.
2. Weaving of grey saris with broad silk solid border.
3. Grey panchas.
4. Coloured check cotton saris of ordinary silk borders.
5. Pure silk saris with gold lace in borders known as mudi panchas.

Raw material is obtained locally from Tandur. There are 15 families of Bhowsar dyers; of these only 2 are on dyeing. The rest have adopted the art of weaving as their main occupation. Napthol red, alizarine red, and sulphur black are the dyes known by them.

Kundhar.—Kundhar is in the district of Nander and is the headquarter of Tehsildar. There are three villages at close quarters by name Kundhar, Bhadarpure and Manaspure. The industry of these places put together may be called the cotton weaving industry of Kundhar. The weavers belong to the caste of Momin, Nerali, Bhowsar, Chunwar, Koshty and Pathan. About 198 families employing 250 looms are engaged in weaving coarse coloured saris and pugris using mill waste yarn for pugris and 20s yarn in saris. Besides this, Durri weaving is also carried on by a class of Mohammadans known as Shekh and Pathan consisting of 15 families. They maintain 28 vertical looms. Coarse bed durries are generally made by them.

There are 4 yarn dealers, who supply yarn to these weavers on credit on terms of repayment in cash after selling the cloth. Raw material is obtained from Nander. 6 families of Bhowsar dyers are on dyeing yarn with alizarine paste with tannic acid and oil process. Indigo is also dyed by them to some extent. 4 families of Bhowsar dyers are printing lambadi cloth generally known as Kharwa.

Korutla.—This town is in Karimnagar District and is connected with the road to Jugtyal. A motor service has been established between Karimnagar, Jugtyal and Korutla.

About 400 houses belong to the professional weavers with a population of 1,600 people. They are of caste known as Khutry and Padmashali. The number of handlooms are 660. Of these 16 are fitted with fly shuttle slays. The weaving of this place may be divided into 3 classes such as:—

1. Pure silk weaving.
2. Weaving of mixed fabrics in which both cotton and silk combined in warp and partly in weft.
3. Pure cotton weaving.

First quality of cloth consists of silk saris having gold lace borders, silk shirting cloth and silk dhotis of small borders. About 175 country looms are engaged in this second quality of cloth consists of solid bordered saris and third quality consists of solid and plain bordered cotton saris.

Raw material is obtained from local merchants. They also take the finished goods in lieu of the dues but there is no regular market for their goods. Most of the weavers dye their own yarn. However there are 6 families of Maretha dyers, who are engaged in dyeing on wage system. Alizarine and indigo are the dyes used by them for dyeing cotton yarn. Basic and direct colours are used in dyeing silk yarn.

Muski.—This village is in Lingsugoor Tehsil, District Raichur, and is about 18 miles from Linsugoor. About 725 weavers of Hutkar, Lingayet, Padmashali and Momin castes with 300 country looms are engaged in weaving fine saris of mixed quality, i.e., pure silk and 60s yarn in body having with ordinary and tope pullo silk is used in borders of Ilkul pattern. Raw material is supplied by the Ilkul merchants and the finished goods are also collected by them, leaving the wages of the weavers. There is no dyer in this kusha. Most of the yarn used for weaving is supplied ready dyed.

Mudgal.—Mudgal is about 10 miles distant from Lingsugoor. About 400 weavers with 125 country and 50 fly shuttle looms are engaged in weaving cholkhans of dobby design, using art silk in warp or weft along with 30s or 2/64s mercerised yarn. Only five per cent. of the looms are employed for weaving finer saris with 60s yarn and silk. They belong to the castes or Langayet, Momin and Wasnermen.

Raw material is supplied by master-weaver and is obtained from Goludgudh and Amingudh. Most of the yarn used here is obtained ready dyed. The finished goods are sold locally or in the neighbouring villages by the master-weavers as hawkers.

Manedhal.—This village is about 20 miles from Kushtigi. About 473 weavers with 195 country looms are engaged in weaving fine saris of mixed quality of Ilkul pattern.

Raw material is supplied by a local sowcar named Iswarappa and the finished goods are also taken by him. The cloth is sent to Ilkul for sale. The yarn is dyed in a dyeing shed of this man. Alizarine vegetable indigo is used.

Makthal.—This town is in Mahaboobnagar District and is the head-quarter of Tehsildar. It is connected with the road to Devarkonda. A motor service has been established between Devarkonda and Makthal. About 1,200 people are engaged in the art of weaving employing 450 country and 85 fly shuttle looms. They belong to the caste of Momin and Padmashali. Main fabrics woven by them are saris of Ilkul pattern. Few of the looms are engaged in weaving grey saris and dhotis of 20s and 30s and 40s yarn. The industry is entirely controlled by the sowcars and master-weavers of Narainpet. Even the independent weavers of this place are not free from their clutches.

Dyeing is carried out by the weavers themselves. Alizarine red, sulphur black are generally dyed here; naphthol red is also used to some extent. Woollen kumbles are also woven here by Kurvoloo Dhunger. There are about 70 houses of these Kurvoloo. Each family possesses 30 to 35 sheep, from which the supply of raw material is obtained. The weaving is done by the male members on hand looms of very primitive type, whereas the spinning of the wool is done by women by means of Takli. There are about 45 looms in all. The fine black wool is generally collected by these weavers from the neighbouring villages such as Waddagnary, Bandygundy, Rutmudgy, Kudtore, Kundoparum and Ronsy from Gullore-Dengun in exchange of blankets or at times with an equal weight of salt.

Madhole.—This kusba is in Sedum Taluka, Gulburga District, and is about 11 miles distant from Sedum. About 334 families of weavers are engaged in the art of weaving employing 807 fly shuttle and 121 country looms. They belong to the caste of Momin, Nelgul, Kurmijoder, Khutry, Padmashali, Kurmishutty with a few Koli and Barbar weavers.

Most of the fabrics woven in this kusba are coloured saris of palin and check body with a very small proportion of grey dhotis, grey khadi shirting cloth and pattal and number of counts used are 20s, 24s and 30s.

Raw material is obtained from Bombay by the local yarn dealers and supplied to the weavers for cash and credit. The finished goods are sold in the neighbouring villages by the sowcars or weavers themselves.

Dyeing industry is carried out by dyers known as Bungur dyers. These Bungur dyers have adopted the art of weaving as their main occupation. Each well-to-do weaver possesses a dye house attached to his weaving shed and these Bungur dyers are engaged to dye yarn on piece wage system; sulphur black, alizarine red are generally used.

Muddore.—This village is in Kodungal Taluka, Gulburga District and is about 12 miles distant from Narainpet. It is famous for its coarse lungis. About 329 weavers with 109 country and 128 fly shuttle looms are engaged in weaving lungis. Very few are making saris of 20s and 30s yarn. The lungis made here are known of different names such as Hamran, Chandrakala, Neyakhteara, Sangareddy, Manoli, Adden black, Adden papai; indigo is

the most popular colour used for the round of lungi cloth. There are two cloth merchants in this kusba who are dealing in lungis. The Arab merchants of Hyderabad generally get their supply of lungis from this place. Yarn and dyes are obtained from Narainpet or purchased locally for cash and credit. There are two dyers in this town, kili by caste. Alizarine red and natural indigo are the colours dyed here.

Manvath.—This town is in Parbhani District and about 1 mile distant from Manvat Road Station on H. G. V. Railway (metre gauge). The population of the place is 10,500; of whom 3,622 are the weavers. The bulk of them belong to Khatry, Padmashali and Koshti caste with a few dyer weavers, Momins and Sootshalis. There are about 2,335 looms in all. Of these 2,000 are fitted with fly shuttle slays and dobbies. All are engaged in weaving coarse striped saris, coloured pattals and striped cholkhans using 20s, 24s and 30s yarn. The yarn is obtained direct from Bombay by the yarn dealers of this place and is supplied to the weavers. Few of the weavers get their supply of yarn from local sowcars, who take back the finished cloth and pay their wages. The great portion of the finished goods are purchased by outside dealers who generally visit this place. But at times it is given to the local hawkers; however, they find a ready market for their goods.

There are about 125 families of dyers; of which 18 families are on dyeing. Sulphur indigo is the only colour used by these dyers. Direct and basic dyes are used for dyeing mercerised yarn. The other dyes are unknown to them.

Medak.—Akannapet is the nearest station for Medak. The distance from the station to the town is about 12 miles and there is a regular bus service running daily from the station. The most important industry for which Medak Kusba is famous is block printing carried on by Hindu printers known as chippies. This industry has been carried on from a long time and the printed cloths had a wide reputation. It is said that each year consignments of the cloth to the value of O. S. Rs. 20,000 is sent to Arabia and other places by Arab merchants of Hyderabad, who generally visit this place. At times the printed cloth is taken by the printers themselves in the neighbouring villages for sale.

There are 20 families of dyers. Out of these 17 families are on printing. Among them 11 families are well-to-do. The finished cloth consists of screen, prayer cloth, bed covers, jazums, razai, dinner cloth and charjamas and chandni. Khadi cloth is generally printed. Printing is usually done in two colours, fine deep red and jet black. Other colours are unknown to them. The process of making mordants and of mixing colours is kept a secret. The chemicals used are available in the local market. Alizarine is the only imported dye used and is obtained from Secunderabad. The cotton weaving is also carried out by Padmashali weavers. There are 25 houses of these employing 22 country looms, are on weaving grey dhotis, coloured saris, check and chutki romals of 20s, 24s and 30s counts of yarn. Yarn is obtained locally on credit. The finished products are sold locally direct to the purchasers on bazar day or in the neighbouring villages by the weavers themselves.

Malayal.—This village is in Taluka Jugtyal, Karimnagar District and is 10 miles away from Jugtyal on Karimnagar-Jugtyal Road. About 275 weavers with 145 country and 5 fly shuttle looms are on weaving pure silk saris, silk dhotis and cotton dhotis of solid borders, using 30s and 40s yarn. They belong to Padmashali and Khutry caste. Cotton yarn is obtained from Warangal by local yarn merchants while silk is obtained from Armore. The finished goods are sold through the local hawkers in the neighbouring villages. Most of the weavers dye their own yarn with direct and basic dyes. There was only one dyer, who was dyeing yarn with natural indigo.

Muslapure.—This village is in Sarfi-khas, Taluka Gurbi. There are about 250 Padmashali weavers with 135 throw shuttle and 15 fly shuttle looms. All the shuttle looms are employed in producing grey cloth out of hand spun yarn such as dhotis, saris and khaddar cloth. Hand spun yarn

is obtained from the neighbouring villages, where the spinners are old and young women about 250 in number, with an equal number of hand churkas. About 16 families are on dyeing, having a small dye house, of their own, working independently. They purchase yarn from Secunderabad and dye it with alizarine red, red sulphur black and naphthol red. Then it is sold to the weavers for cash and credit. The finished products are generally sold by weavers themselves.

Nizamabad.—This town is on H. G. V. Railway (Meter Gauge) about one hundred miles north of Secunderabad, was known originally as Indur. Nizamabad is the headquarters of the first Taluqdar, Tahsildar and Police Superintendent. The population of the town is 22,000 of which 554 are weavers. They are of Padmashali and Bhowsar castes. The number of looms engaged are 250 country and 12 fly shuttle looms. The main fabrics woven are coarse of 20s yarn, having plain striped and checked body with cotton borders. Very few weavers are making saris with silk borders.

The raw material is supplied by the local yarn dealers in ready dyed bundle and is obtained from Bombay. The finished products are sold locally on bazar day or at times taken by the hawkers. There are about 16 families of Nelgur dyers, of these only 4 families are on printing coarse khadi cloth, usually with black and red colours. Cotton yarn is not dyed by them.

Narayanpet.—This town is in Mahboobnagar District about 26 miles from Devarkadra Station and about 14 miles from Narayanpet Road on G. I. P. Railway line. A motor service is running daily between Devarkadra and Narayanpet Road to this place. The population of the town is 16,217; of whom about 9,000, i.e., 64.09 per cent. are weavers with 5,219 looms. Only 112 out of these are fitted with fly shuttle slays. There are different castes of weavers such as Tokti, Shukulshali, Khatri, Hutkar, Kurmi, Padmashali, Jyindra and Momins. The weaving is confined to women's cloth particularly the check saris of mixed quality using 80s to 80s count. Silk Pithambar is also woven to some extent here by few of the Khatris. Raw material is obtained locally.

Finished products are taken by local sowcars and sent to different parts of Dominions as well as to British India.

Dyeing of yarn is done by different caste of dyers such as Bhowsar, Shukulshali, Telanga dyers and Mohammadans. Naphthol red, alizarine red, sulphur black and immedial green are the dyes used by them.

Cumbal weaving is also carried on by a class of people known as Curvolu Dhungars. About 25 families are engaged in this work; the raw wool is obtained from neighbouring villages. A weekly bazar is also held on Thursday early in the morning at 4 A.M. where Dhungers and hawkers bring their cumbles (weekly productions) for sale from the adjoining villages. These are purchased by local merchants and by outside dealers. Cumbles are chiefly exported to Nagpur, Bombay and Mysore, etc. About Rs. 8,000 to Rs. 10,000 worth of cumbles are sold every year.

Nander.—This town is famous for the Sikh temple, which is situated about a mile from the Railway Station on H. G. V. Railway (Meter Gauge).

Nander is an important commercial town. It is the headquarters of 1st Taluqdar and Tahsildar. Formerly this town was celebrated for its manufacture of fine pugris and shamlas known as gundlas, some of which were of great value. But at present, only 3,390 people with 660 country and 200 fly shuttle looms are engaged in weaving coarse pugris and coarse grey cloth. Coloured saris and cholkhans are also woven to some extent. Raw material is obtained locally for cash and credit. The finished products are sold to the hawkers. Besides this about 35 families of Pathans with 40 vertical looms are engaged in making bed cotton durries of various sizes.

There are about 35 houses of dyers of which 12 are on dyeing cotton yarn. The most important dyes used are alizarine red, sulphur indigo and direct colours. Naphthol red is also used to some extent.

Otkoor.—This village is in Mukthal Taluka, Mahaboobnagar District. It is about 8 miles from Narayanpet. About 1,500 weavers with 980 country and 32 fly shuttle looms are engaged in weaving coarse, coloured check saris of 20s and 30s yarn. They belong to the castes of Hutker, Khatry, Momin, Padmashali, Dasri and Barber.

Cumbal weaving is also carried out by Dhungers; of whom there are about 28 families with an equal number of looms. Each family possesses a number of sheep from which they obtain their wool. The extra wool required for this work is purchased from Golaru Dhungers of neighbouring villages.

About 8 families of dyers are engaged in dyeing cotton yarn with alizarine, sulphur black and natural indigo.

Paithan.—Paithan is one of the oldest cities in Deccan is situated on the north bank of Godavari, about 28 miles south of Aurangabad with which it is connected by road, and was once celebrated for silk and gold lace saris and pugris, known as Mandeel and also for gold thread work. The work was patronised by the public and the industry received a great impetus. Momin women also took to weaving of pugris as a secondary occupation. Silk saris were generally known as Paithan saris. Having plain silk body with gold lace borders, the ornamentation was done in pullo with gold lace and silk thread of different colours, with artistic designs and these costly fabrics were purchased by the aristocracy on marriage occasions. But lately the industry received a set back owing to change of fashions and is almost extinct.

There are about 495 houses of Momins and about 25 houses of Shukulshali weavers with 25 country and 17 fly shuttle looms of big size and about 377 country looms of small size. But at present hardly 100 looms are working. There is no dyer in this kusba and they get their yarns dyed from Ahmadnagar which is not far off from this place.

Only the red pugris are dyed with direct dyes by the weavers themselves.

Gold lace industry which flourished about 30 years ago is now on the decline. At present 10 families are engaged in the industry by drawing the wire and making gold lace by hand.

Prenda.—This kusba is in Osmanabad District and is about 18 miles from Barsi Railway Station.

The chief classes engaged in weaving are Momins, with a few Koshty employing 300 fly shuttle and 140 country looms in manufacturing coarse cotton saris and cholkhans, grey coarse khady is also made by few Koshty weavers using 20s and 30s yarn. Ready dyed yarn is obtained from Sholapur by the master-weavers of this place.

Ramreddypet.—This village is in Taluka Kamareddy (Nizamabad District) and is about 9 miles from Kamareddy Railway Station on H. G. V. Railway (Meter Gauge). The nearest station is Unalawai about 4 miles distant. The population of this place is 3,189 of whom 520 are weavers of Padmashali caste.

There are about 280 country looms at work, about 70 per cent. of these looms are engaged in weaving cotton coloured saris with silk solid borders, grey dhotis of silk solid borders, and hand spun khaddar. About 20 per cent. of the looms are engaged in making saris of mixed quality, i.e., admixture of cotton and silk and about 10 per cent. are making pure silk saris known as Pitambar.

The yarn is supplied by sowcar weavers and the finished goods are taken back. Dyed yarn is also supplied by the dyer merchants of Rajampet for credit. Silk is dyed by the weavers themselves with Kirmanji dana and with basic colours.

A considerable portion of the product is taken by outside dealers and the rest is collected by local sowcars, who export them to Nizamabad. Hand spinning is also practised by old women of agricultural classes and there are about 50 hand churkhas for spinning yarn. The yarn thus spun is woven

by Padmashali weavers. Cumble weaving is also done by Kurvolu Dhunger. There are 50 families of this caste with an equal number of looms.

Rungumpet.—This village is about 13 miles from Indol, Medak District, on Jogipet-Medak Road. The weaving industry is carried out by 400 Padmashali weavers employing 200 country looms. The main fabrics manufactured here are of inferior quality, *i.e.*, (1) admixture of silk and cotton with gold lace in borders and pullo, (2) cotton check saris with silk solid borders, (3) grey saris and dhotis with silk solid borders. 30s and 40s yarn is generally used. There is no dyer in this village. Dyed silk is obtained from Humnabad village about 8 miles distant while really dyed cotton yarn is obtained from Jogipet, Fezabad and from Muslapur. The finished cloth is purchased by outside dealers who generally visit this place.

Shahpur.—This town is in Gulbarga District and is the headquarter of Tahsildar. The weaving industry is carried out by different castes known as Momins, Shukulshali, Hatkar, Padmashali, Jingavat, Jodder, about 1,591 in number, employing 587 country and 266 fly shuttle looms. The main fabrics woven by them may be divided into 3 classes:—

- (1) Coarse check saris of 20s, 24s and 30s yarn with mercerised borders.
- (2) Grey dhotis of 20s and 10s yarn.
- (3) Fine mixed saris of 60s yarn and silk.

There are 3 dyers in this village. They dye yarn on piece wage system using alizarine and natural indigo.

Siddipet.—Siddipet is about 36 miles from Alir Station on the H. S. Railway (Broad Gauge). It is the headquarter of Tahsildar. The town is famous for the manufacture of costly silk saris, in which gold lace is used for ornamentation in borders and pullo and the body of the sari. Three castes are found here, *i.e.*, Padmashali, Neelkunthi and Khatry. The weaving is carried on by 260 families with 570 country looms, silk pitumbers, silk romals, silk saris, silk shamlas, cotton punchas of solid silk borders are woven by these weavers. The yarn is purchased from the local yarn merchants at a high rate of interest. The finished products of these looms are exported to Warangal, Nalgonda, and Bidar by cloth merchants of this place. Nearly half of the product is consumed in Medak and Karimnagar Districts and to some extent in Hyderabad. Cotton yarn is to a very limited extent dyed locally. Silk is dyed by the weavers themselves with basic colours.

Sangareddy.—This town is in Medak District and is the headquarter of the 1st Talukdar. A motor service is running daily between Hyderabad and this town. The probable number of country looms will be 175 country and 10 fly shuttle looms. The silk industry is confined to Khatries. There is a small number of Padmashali weavers. The main fabrics made by Khutries are silk saris, silk cloth known as tapta and silk cholkhans, while Padmashalis are making cotton saris, check romals and lungis of 20s yarn.

There is no dyer in this town. Coloured yarn is obtained from Ismailhanpet. The finished goods are sold by the weavers themselves.

Sirsilla.—This town is in Karimnagar District and is the headquarter of Tahsildar. A motor service has been established between Karimnagar and Sirsilla. Cotton weaving is the only industry here followed by 425 people of Padmashali caste. The probable number of handlooms will be 158. Of these 8 are fitted with fly shuttle sleys. About 50 per cent. of these looms are employed in weaving check romals and the remaining 50 per cent. are used in making cotton solid bordered saris with cotton pullo, ordinary saris, grey khadi cloth and punchas. The number of counts used are 12s, 20s, 30s and 40s. Almost all the weavers are working under local sowcars of their own caste, who act as yarn and cloth merchants and as middlemen.

Dyeing industry is carried out by 8 families of dyers, tailor by caste. All are working under sowcars. Alizarine red and sulphur blue are the colour dyed by them.

Secunderabad.—Secunderabad is named after the Nizam Sikunder Jah and is one of the largest military stations in India. The main road connecting with Hyderabad leads past the Hussainsagar.

Silk weaving and gold thread sari border weaving are the only industries followed here by Khatry weavers in Mohalla Nalagotta. There are about 200 families of Khatries with 50 country looms and about 50 chokies. The finished goods are generally put in the market by the weavers themselves or at times through middlemen.

Tawargiri.—This kusba is in Taluka Kushtigi in Raichur District and is about 15 miles from Kushtigi. In all about 815 families with 301 country looms are engaged in weaving. They belong to different castes such as Kurumihar, Padmashali, Hutkar and Momin. Of these Kurumihar are the original inhabitants of this kusba, and they are the sowcars of this place. The rest are working under them as labourers. Saris of mixed quality of Ilkul pattern are mainly woven. The raw material is supplied to the local sowcars by Ilkul merchants and the finished goods are also taken by them.

There is no dyer here. Even the weavers do not know dyeing. The ready dyed yarn from Ilkul is supplied to them.

Warangal.—Warangal is on the N. S. Railway (Broad Gauge). The town was founded in the twelfth century.

For hundreds of years Warangal has been renowned for its industrial importance. The best and most delicate cotton stuffs were manufactured here; but now the industry is confined in weaving coarse fabrics, such as saris, chutki romals and silk saris, artificial silk shamlas, and grey dhotis which is carried on in 6 places, i.e., Hanumkonda, Fort, Karimabad, Urus, Sainpet, Wadapully and Kazipet. All these places are situated near each other and lie within the jurisdiction of Warangal. In all about 1,500 families with 2,000 country and about 500 fly shuttle looms are engaged in this business. Tailiah or chutki romals are mostly woven by these weavers. The average production of this particular cloth per loom in a day is about 4½ cubits. These romals have reputation of their own from a very long time. They are the popular among the poor as well as among the middle classes.

The principal market for these goods are Nauder, Nizamabad, Aurangabad, Hyderabad, Gulburga and Mohaboobnagar. Beside this the woollen carpets and Asan weaving have been carried on for very many years and about 400 families with 500 vertical looms were engaged in this art but at present only 20 per cent. of these looms are employed in making carpets and about 10 per cent. are used in making cotton bed durries. The rest are lying idle for want of work. Newad weaving is also done by Mohammadan women in their own house, about 20 families are engaged in this work.

Cumle weaving is also carried out by Kurma families. There are about 60 families in all, with an equal number of looms. Most of the wool used in cumbles is limed wool obtained from the local tanneries. These cumbles are known as Kuchracumles. They are in great demand, and are exported to Sholapur, Bombay, Ahmednagar, and as far as Ceylon.

The Handblock printing industry is carried on by Bhowars. There are about 40 families in all. Of these 25 families are on printing coarse cloth known as Kharwa, using alizarine for red and iron for black. The other colours are unknown to them.

Yarn dyeing is also carried on by durzi dyers. About 60 families are doing this work. Chief colours dyed by them are alizarine red, indigo blue, nanthol red and direct colours. The water of Warangal is saltish and is not suitable for dyeing.

Zaherabad.—Zaherabad is on the V. B. Railway. The former name of this place was Ekhehi (it is in the Paigah Jaoir of Nawab Moinuddowlah Bahadur) and is the headquarter of the Tahsildar. The principal cottage industry in this kusba is the weavign of cotton. About 542 people are

engaged in this art employing 187 fly shuttle and 128 country looms. Main fabrics manufactured here are stripped, but mostly of plain body saris, grey coarse dhotis, shirting and pugria using 10s, 20s and 30s counts of yarn. There is no proper organisation for the sale of their goods. Yarn is supplied by the local yarn dealers. Dyeing industry is carried out by 8 families of dyers Bhowsar by caste. Alizarine red and natural indigo are the colours used by them.

Messrs. Anderson, Wright and Company, Calcutta.

Letter dated the 23rd January, 1933.

We have duly received the copy of the questionnaire prepared by the Tariff Board in connection with its enquiry into the Sericultural Industry.

Your letter is addressed to us as Agents of the Rose Filatures concern. This was a concern which manufactured raw silk from cocoons reared in Bengal. It had a number of filatures situated chiefly in the Murshidabad district. About six years ago we decided to close down the filatures permanently, those which were leased were relinquished and those which were the property of the concern have since been sold. The great bulk of the raw silk which we manufactured was exported, mainly to France. Certain quantities were sold from time to time in the local market but usually we found it impossible to compete with filatures owned by Indians. The quality of the silk which we manufactured was, generally speaking, better than that produced in the Indian filatures but our standing expenses were naturally higher and local buyers preferred cheap silk even if the quality was inferior. The continental demand for Bengal raw silk had for some time been seriously declining. The reason was that its quality was greatly inferior to that of Japanese and Italian silk. Owing to the inferior quality of the cocoons from which it is made, Bengal raw silk, in the re-reeling and doubling processes, breaks much more easily than raw silks which are made from cocoons of better quality and this entails the employment of a much larger number of workers in the processes referred to. For this reason it was becoming more and more difficult to interest French manufacturers in the Bengal product; British manufacturers had for some years previously almost ceased to use it. These were the reasons which influenced us in our decision to close down the concern.

In view of these facts, you will not expect us to answer the questionnaire in any detail. Had the enquiry taken place some years ago we could have answered a great many of the questions but conditions, no doubt, have changed considerably in the interim.

There are, however, certain questions which we can answer and possibly the information and opinions which we are able to give may be of assistance to the Board, though we would repeat that we have ceased to take any active interest in the raw silk industry.

Question No. 51.—In our opinion the serious decline of the Sericultural Industry in Bengal is due to the prevalence of pebrine disease amongst the silk-worms which are reared in the Province. Silk-worms suffer from other diseases besides pebrine but pebrine is by far the most disastrous. Worms infected with pebrine usually do not die until they are just about to spin their cocoons and all the mulberry leaves they have consumed during their three or four weeks of existence go absolutely to waste. Naturally this increases the cost of rearing the cocoons to a very material extent which in turn increases the cost of the resultant raw silk, making it difficult, if not impossible, for Bengal raw silk to compete in foreign markets and allowing raw silk from Japan and China to enter into the local market. It may here be emphasised that, apart from the question of cost, owing to the prevalence of pebrine and other diseases amongst the silk-worms reared in Bengal, sufficient raw silk is not produced for the requirements of the local market. So far as foreign markets are concerned, although as we have said, Bengal raw silk has gone out of favour, if it were cheaper it is quite possible that a market might be found for it as it has certain qualities which the manufacturers used to appreciate;

for instance, it makes very good crepe and it takes dark dyes very well. Moreover, if the suggestion contained in our answer to question No. 60 were to be adopted, viz., that the whole of any additional import duty which might be imposed should be allocated to the Agricultural Departments of the Provinces or States where raw silk is produced in India, there is reason to believe that the quality of Bengal raw silk could be improved for, in addition to producing disease-free cocoons, the Sericultural branch of the Bengal Agricultural Department would be able, in course of time, to turn out improved cocoons which would yield a better silk than is now being made. One of the officers of the Sericultural Branch has done and is doing some very useful experimental work in the direction of producing an improved cocoon by selection and also by breeding hardy first generation annual races producing a superior reeling silk for the cold weather season crop in Bengal but it has not been found possible to extend this to the practical sphere owing to lack of funds.

You are probably aware that the method universally employed to combat pebrine is to examine the female parent moth under the microscope and to destroy the whole of her eggs if she is found to be infected with pebrine. In some countries, particularly in Japan, this is done in nurseries controlled by the Government and the rearers are not allowed to keep any cocoons for reproductive purposes. In Bengal there are nurseries controlled by the Agricultural Department of the local Government where microscopical examination of moths is carried out and disease-free cocoons* issued to the rearers. But the capacity of these nurseries is not nearly great enough to produce all the cocoons which the rearers require. With the idea of producing a larger quantity of disease-free cocoons a system is in force whereby cocoons produced in the Government nurseries are passed on to "selected rearers" and the resultant crop of cocoons, i.e., the second generation, is sold to the rearers but we question whether the cocoons produced by the selected rearers are always disease-free. These people have received some instruction in the science and practice of rearing silk-worms and have been taught how to disinfect their nurseries and their nurseries are inspected from time to time by officers of the Bengal Government Sericultural Department but it is not to be supposed that the cocoons which they turn out are as free from disease as those produced in the Government nurseries. In any case the Government nurseries and the selected rearers together cannot produce nearly the whole of the cocoons required by the filatures and consequently large quantities of cocoons are reared by people quite outside the control of the Sericultural Department, many of whom have the most elementary ideas with regard to sanitation and often lose a large part of their crops of cocoons owing to the ravages of pebrine.

To summarise, in our opinion the serious decline of the Sericultural Industry is very largely due to the prevalence of pebrine and other diseases amongst the worms, which it is quite beyond the power of the Sericultural Department to eradicate with the limited grants which are placed at its disposal by the Government.

Question No. 52.—As stated above, we are of opinion that the decline is due far more to disease than to any world factors. It is not within our knowledge whether and to what extent disease is prevalent in Mysore or Kashmir.

Question No. 53.—The main cause of the present decline, viz., disease must in our opinion be of a permanent character unless steps are taken to turn out much larger quantities of disease-free cocoons in the Government nurseries than can be turned out at present. Cocoons turned out by individual rearers can never be relied upon to be free from disease.

Question No. 54.—The price of Bengal raw silk is too high to compete with that produced in other countries and sold in the continental markets. The rearers cannot reduce their prices so long as they continue to lose so many cocoons due to pebrine.

*In those countries where univoltine silk-worms are reared it is the usual custom to issue disease-free eggs or "seed" to the rearers, but in Bengal the worms are of the multivoltine variety and, the issue of seed not being practicable by reason of the time element, cocoons are issued instead.

Question No. 60.—We venture to suggest that, in the event of the import duty on raw silk being increased, the whole of any additional duty which may be imposed should be allocated to the Agricultural Departments of the Provinces or States where raw silk is produced in India. If this were done we are of opinion that the cost of producing raw silk in India would be reduced, as more disease-free cocoons could be turned out by the nurseries and the rearers would be enabled to sell their cocoons to the filatures at cheaper prices. The Government of Bengal is not in a position to increase the grant which it makes to the Sericultural Department, nor does it seem likely that it will be able to do so for some years to come, and the only way, it seems to us, by which more funds could be made available would be by means of some such scheme as we have outlined.

The Bangalore Silk Filature and Throwing Mill, Bangalore City.

(1) *Letter dated the 8th February, 1933.*

Referring to the questionnaire on the above subject forwarded with your letter No. 5 of the 3rd ultimo, I beg to submit herewith my reply to the same, together with six spare copies.

The appendices* referred to in my reply are being separately submitted.

Enclosure.

Reply to the questionnaire of the Tariff Board, No. 5, dated the 3rd January 1933, by F. L. Silva, Bangalore Silk Filature, Bangalore and Kollegal.

2. There is no organisation worth mentioning or any concerted action in any of the branches of the industry. Even among rearers in the villages, there is no understanding as to the price of cocoons harvested at one crop. No facilities exist in the matter of finance or marketing and the industry has no outside help. In a word, every individual has to act for himself.

15. I agree with this view. The climatic conditions in Mysore and Kollegal are, more or less, as stated in this question and the conditions with regard to rainfall also are favourable. This area is therefore eminently suitable for the development of sericulture.

19. Save in exceptional cases, the breeder of silk-worms sells his cocoons to reelers.

He cannot keep them for more than 8 or 9 days, as otherwise the moths would emerge, rendering the cocoons useless for reeling. On the otherhand, it is to his advantage to sell them as quickly as possible, as the worm inside the cocoon (which accounts for more than 90 per cent. of the price) loses weight from day to day.

But generally speaking, the price of cocoons is determined by the prices of silk prevailing in the central markets at Bangalore, Kollegal, etc., and the reelers and rearers are so much in contact with each other that the latter quickly become aware of the market conditions.

The average price of cocoons per lb. during the last few years is given below; it includes cost of transport to the factory.

Year.	Bangalore.		Kollegal.	
	A.	P.	A.	P.
1925-26	10	8	...	...
1926-27	11	4	...	...
1927-28	10	5	...	...
1928-29	9	10	...	...
1929-30	9	6	7	8
1930-31	...	...	5	3
1931-32	...	...	5	8
1932-33	6	1	5	4

*Not printed being confidential.

20. Barring the comparatively small quantity produced in my filature and that of Government, the whole of the Mysore and Kollegal produce is reeled by hand on charkas.

The process of reeling is as follows. When cocoons are received at the filature they are, first of all, "conditioned", so as to prevent the moth from emerging from the cocoon and making it unreelable. For this purpose, the cocoons are filled in trays made of wire-netting and steamed in an air tight chamber for about half an hour. This treatment not only stifles the chrysalis but softens the gum with which the fibre is coated. The cocoons are then dried in the open, and, with proper care and frequent stirring, they can be kept for months without being damaged. (Other methods of treatment, such as sun drying and hot air stifling are also possible.)

The machinery employed in a filature for reeling is known as the "basin", which term includes not only the reeler's but the preparer's (cooker's) basin also, as well as the "traveller" or swift on which the yarn is reeled as it unwinds from the cocoon. Each of the two basins is fitted with 2 pipes, one for cold water and the other for steam, to enable the operative to replenish one or the other, as required, as also an outlet pipe, to drain away the waste water. The reeling basin is made up of 4 to 8 "jette-bous" or ends, through which the yarn is worked on to the swift, a separate swift being provided for every 2 or 3 ends, which can be stopped at will by means of a brake rod. That is to say, a reeler can simultaneously work as many skeins as there are ends, or stop some and continue the others. The swifts are enclosed in wooden boxes, which are fitted with steam radiator pipes for drying the silk as it winds around the swift.

When cocoons are to be reeled, a handful of them are immersed for a minute or two in the preparing basin, which is filled with water at boiling temperature. They are then lightly brushed with a fibre brush which catches up the outer portion of the cocoons, known as 'waste'. This outer portion forms a convenient handle with which to hold the bunch of cocoons and shake them down in the water until the rest of the waste is pulled off and the inner end or clean fibre is reached. They are then passed on to the reeler, who breaks away the waste, and feeds into the reeling end the fibres of as many cocoons as are required to make up the desired size or denier replacing broken fibres with fresh ones, and returning the broken cocoons to the preparer for being brushed again. These gummy fibres, as they roll through each end, to which a fine cylinder is fitted, aggregate into a single thread. The latter is then passed over 2 guide reels, bent back at an angle and twisted round itself (to squeeze out the moisture and make the fibres more cohesive) and then guided over a third reel on to the swift. In the event of a thread breaking, the swift is held up with the brake and a knotter joins up the two ends. At convenient intervals the yarn is removed from the swift and forms the finished 'raw silk' of commerce, subject to detailed examination at the hands of an expert staff, whose work corresponds to some extent to that of 're-reeling' done in China.

While this work is going on, a waste cleaner takes up the waste, separates the knots, draws it out into the required length (or staple) and puts it to dry.

In the case of the charka, the reeler prepares the cocoons in the reeling basin itself and does the knotting as well, though generally this is neglected altogether. All the help he requires is that of a boy to turn the handle of the charka, while the waste is left to take care of itself.

It may be mentioned here that the filature employs three operatives to help the reeler, *viz.*, the preparer, the knotter and the waste cleaner; these three however are sufficient to attend on two reelers. For such help as that of supervisors, silk examiners, mechanics, attendants, the charka owner has no need at all. Nevertheless the latter with his 2-end charka, revolving at a high speed, is able to secure a larger output than a filature on a 6-end basin running on a regulated speed. Hence from the point of view of employment, as of that of quality, the filature is entitled to preference.

The equipment of a filature also requires a steam boiler, power for driving and various other appurtenances which a charka reeler can do without,

21. A statement giving the necessary particulars is appended and marked Appendix A.*

The figures refer to silk reeled in a filature.

22. Please see the statement marked Appendix B.*

23. Indian filatures may be said to be at a disadvantage with their foreign competitors so far as the quality of the cocoons they deal with are concerned. As against this however they enjoy a compensating advantage of no mean importance. Whereas foreign filatures (except in Canton) can only secure one main crop of cocoons and a subsidiary one a second time, Indian filatures have the benefit of crops several times in the year, thus effecting a saving in the capital required to be laid out.

25. Kindly see Appendix C.*

26. On the present scale of production of cocoons, a filature of forty or fifty basins is found to be a convenient unit. But if the production is stimulated, a 100-basin filature is likely to prove more economical.

A statement showing the capital required for such a filature together with an estimate of its financial position is appended and marked Appendix D.*

With regard to the capital cost, it may be mentioned that in the past it was found necessary to import basins from Europe at a cost of Rs. 400 to 500 each. At present however it is understood that they are available in Japan at a much cheaper price. In any case, with the experience gained so far, we have come to the conclusion that it is not necessary to depend upon foreign machinery at all. The heavy parts such as iron tables, stands, etc., which account for a large proportion of the cost, can be dispensed with altogether and constructed with masonry or wood. The essential parts, such as jette-bous, copper basins etc., can be manufactured and the fittings purchased in India. So also all the wooden parts can be constructed here. Hence in estimating the capital cost of a filature hereafter, a provision of Rs. 100 per basin is considered ample.

27. I have no first-hand knowledge; but from what I have read and heard, I gather that there are very few filature in Italy, China or Japan with less than 100 basins.

29. At present, for an output limited to two-thirds of the capacity, I am employing in Bangalore 102 hands (apart from those working in the Throwing Mill). About 50 of them may be considered to be skilled labourers. They do not take long to learn the work, but if they are suited at all for the work, they require four to six months practice before they can acquire the degree of skill necessary to become efficient hands. The others learn the work within a few days.

The supply of labour is adequate and it must be added that no difficulty is found in managing it. The only disadvantage is that as a large proportion of workers is made up of growing girls, it is difficult to retain their services for any length of time.

30. (i) In my filature reeler are paid from Rs. 6 to Rs. 10 per month.

(ii) My experience leads me to think that for our work, Indian labour cannot strictly be termed inefficient. The fault lies in careless habits and a lack of appreciation of the necessity for conscientious work. The only remedy is the provision of greater supervision.

31. The block value of the filature proper as it stood on the 30th June 1932, was as follows :—

	Bangalore. Rs.	Kollegal. Rs.
Land and buildings	3,800	21,000
Plant and Machinery	20,004	19,600
Other assets	4,882	4,400

32. Kindly see the figures given in Appendix D* for a hundred basin filature.

33. Depreciation has been written off at the following rates :—

	1927-28.	1928-29.	1929-30.
	Per cent.	Per cent.	Per cent.
Buildings	5	5	10
Plant and machinery	3.6	3.6	7

No reserve fund has been created.

34. The working capital required is mentioned in Appendix D.*

The only source from which working capital can be obtained is the Bank of Mysore which charges interest at 9 per cent.

37. Raw silk is used for weaving, for the manufacture of gold thread and for embroidery and needle work.

38. The total Indian demand is about 4 million lbs. a year and the Indian production about 2 million lbs.

The quantity of silk sold locally and that supplied to other parts of India are specified in Appendix E.* None was exported overseas.

The waste was wholly exported to Europe.

40. I have no knowledge of the Railway freight paid by importers. When parcels are sent by passenger train (as we always do) the railway freights are as follows :—

To Bombay Rs. 6.9 per maund.

To Surat Rs. 7.3 per maund.

To Benares Rs. 11.12 per maund.

To Calcutta Rs. 8.14 per maund.

These rates do not include insurance, which is effected with a private company and not with the Railway. In the case of such a commodity however as silk yarn, the cost of transport which is between 1 and 2 annas a lb. is not a material item.

41. The price charged to upcountry markets generally corresponds to that charged to the home market, allowing for cost of carriage.

42. No attempt is made at present to sort and grade Mysore and Kollegal silk, and the distinction observed is as to quality and size. The quality is determined by the excellence of the reeling but without any standard to go by.

The best, if not the only, method of improving this state of things is the creation of an agency to perform some of the functions which in other countries are carried out by a Silk Conditioning House, which has been a long-felt want in India.

43. The published prices do not materially differ from the actual prices.

45. Except in the case of Duppon and the Cheap varieties of Mathow and Panjam, which are of minor importance, the classification adopted for the Customs Tariff is based on colour and place of shipment or production; hence it does not indicate any classification of quality at all.

Nor does the competition between foreign and Indian silk apply to any particular kinds of silk. The weaver, whether handloom or power loom, is guided by price and quality (and, of course, to some extent, by habit). Broadly speaking, the essential difference between Indian and foreign silk, does not lie on the surface and does not therefore come into play except perhaps in the case of high class weaving. The surface differences relating to cleanliness and uniformity of size, apply equally to Indian and foreign silk, and the main factor therefore is that of price.

46. While I am not in a position to say whether the import prices are below the cost of production, I have definite information that the Government of China is giving a bounty equal (in Japanese money) to 100 young (1 young = $\frac{1}{12}$ Rupee) in cash and 30 young by way of abatement of export duty per bale (133

*Not printed being confidential.

lbs.) of silk exported, equivalent to about Re. 1.8 per lb. of silk. This represents from 30 to 50 per cent. of the landed cost (without duty) of China silk. Other forms of aid granted by the Chinese Government are :—

- (a) Increase of duty on artificial silk by 40 per cent. coupled with promise to spend out of such revenue 8 million young annually for 6 years for the development of the silk industry.
- (b) Advances of 3 million young annually to filatures for the purchase of cocoons.
- (c) Loans on the security of silk and cocoons to the extent of 4 million young per annum.

47. Mysore silk is superior to China silk in lustre and wearing qualities and is more sensitive to delicate dyes. But China silk is cleaner and more uniform than Mysore charka silk and therefore winds better, effecting some saving in wastage and operative costs in weaving.

Where the prime cost differs so materially as in the present case it is difficult to say how far the difference in cost is due to any particular factor.

48. The fall in the Far Eastern exchange has been the dominating factor in the falling prices. The first serious drop occurred early in 1930 when the Shanghai tael which, normally, was equivalent to Re. 1.13 or Re. 1.14 fell to Re. 1.5. Since then the price has kept pace with the fluctuations in the exchange, though other causes also have operated in lowering the prices still further.

If the exchange should continue to drop, it is certain that the competition will be still more acute.

49. Silk waste in its crude or unmanufactured form is not imported into India. What is imported is spun silk (which is spun out of waste) including a coarse quality known as Khaddar silk.

50. The Sassoon and Alliance Silk Mills and the Chhoi Silk Mills, both in Bombay, used to manufacture spun silk, but closed their operations a few years ago.

The manufacture of spun silk is a rather complicated process and calls for expensive machinery, costing about 3 lakhs of rupees.

51. In recent years the decline of the sericultural industry appears to be due to (a) increased production in China and Japan; (b) consequent fall in prices; (c) marked depreciation in the Far Eastern Exchange; (d) serious fall in the price of silk waste, owing to the use of artificial silk in place of spun silk; (e) heavy imports of piecegoods of silk and artificial silk; and (f) world-wide depression.

52. In my opinion the decline is mainly due to the operation of world factors; but kindly see the answer to the next question.

53. The causes of the present decline of the industry are partly of a temporary and partly of a permanent, but remediable character.

Among the former are the world depression and the fall in the exchange.

The latter are chiefly attributable to an insufficient appreciation, (on the part of the authorities as well as that of capitalists) of the magnitude of the Indian industry, the possibility of its development, and its importance to the economic life of the country. The amount spent on its development is not even equal to 1 per cent. of its value and bears no comparison whatever to what is done to foster it in the competing countries. The fact that it has nevertheless, been able to hold its own against the most serious competition until the last 4 or 5 years, gives good hope for the belief that its intrinsic strength is such that its revival will be an assured fact, provided only it receives its due share of encouragement. Indeed, the prospects of the industry at one time attracted a capitalist of the calibre of the late Mr. J. N. Tata. But the stage of development which it had then reached was not sufficiently advanced to hold its appeal to a man of his world-wide pre-occupations and he made a present of his first effort to the Salvation Army.

54. The export of raw silk from India has never been very considerable. Some years ago the Kashmir Government used to export their produce; but there is so large a demand in India that it is not necessary for the trade to seek foreign markets.

That the silk is acceptable to foreign markets, there is however no doubt. Samples of my output have been tested both in Europe and America and the quality approved; one American firm was prepared to buy 30,000 lbs. a month.

The decline in the demand for waste is due to the increasing use of artificial silk in place of spun silk, and, of course to the competition of China waste.

Cocoons were exported from India only during the war period.

In my opinion it is not necessary to encourage the export of raw silk or cocoons. But it is urgently necessary to stimulate the export of waste until such time as waste spinning plants are installed in the country.

55. The present method of levying revenue duty on raw silk seriously affects the industry and calls for revision in more than one respect.

In the first place "raw" silk is not a raw material like raw cotton, jute or wool, but the finished thread of commerce reduced from a huge bulk to a small compass, and ready for use. It should therefore be classified as a manufactured article and its liability to duty assessed from that point of view.

Secondly, "thrown silk" (which is the name for raw silk after it is twisted and which operation hardly changes its nature) is grouped under the entry silk yarn, noils and warps. But the bulk of the imports under this head consist of spun silk. Thrown silk is thus masked and neither its volume nor value is correctly ascertainable. Further it would seem only reasonable to charge a heavier duty to thrown silk than to spun silk.

Another and more serious cause for complaint lies in the fact that though there are two well-known divisions of raw silk based on quality, *viz.*, (a) filature and re-reeled silk, and (b) hand reeled or native reel silk (besides Dupion which stands in a class by itself), the Customs classification ignores this essential difference in quality and makes a distinction between yellow and white silk, as if the colour were the main factor in the determination of the price. The consequence is that both high priced and low priced silks carry the same tariff valuation and both pay duty on the same basis. Again a distinction is made according to the port of shipment ('Shanghai' and 'others') and sometimes according to the place of production. This only complicates matters and does not serve any useful purpose. The classification should therefore be revised and the imports divided into (1) filature and re-reeled, (2) hand reeled, and (3) Dupion. If any further distinction is considered necessary though the variation in price is not material enough to demand this—it should be effected by means of sub-divisions under each of the first two heads.

56. I consider that the conditions laid down by the Fiscal Commission are fully satisfied in the case of the Sericultural Industry and that the answer to "A", "B" and "C" is emphatically in the affirmative.

57. (a) The minimum amount of protection required is the difference between the landed price of foreign silk and the basic cost of production of Indian silk, which, at present prices of cocoons, is Rs. 6 for country silk and Rs. 8 for filature silk.

(b) It may be given in the form of a specific Customs duty levied on the imports of foreign silk.

(c) For a period of 10 years.

58. I have no reason to think that the measure of protection recommended is likely to have any prejudicial effect on either the silk textile industry or the handloom industry.

Nor are any other industries likely to be affected.

59. The cost of twisting raw silk varies from Re. 1-8 to Rs. 2-8 per lb. for ordinary weaving; for crepe or georgette it is higher.

I have no sufficient knowledge of the cost of weaving.

60. I am definitely of opinion that if the protection given is adequate, the cost of producing raw silk in Mysore and Kollegal will be reduced appreciably.

It is difficult to estimate the amount of reduction, because, at present, the price of cocoons, like that of other agricultural produce, is abnormally low. Assuming that prices in general do not rise, it may be fairly expected that the stimulus given to the production of cocoons will bring down their price by not less than 10 per cent. Under the head of cost of manufacture, the increase in the output of reeling establishments arising from the increased demand, and the more rapid turnover are likely to effect an appreciable reduction which may also be estimated at 10 per cent.

The means by which such reduction should be brought about are :—

- (a) The grant of effective protection.
- (b) The cultivation of better varieties of mulberry.
- (c) The provision of facilities for irrigation.
- (d) The propagation of better yielding races of silk worms.
- (e) More extensive issue of disease free seed.
- (f) Improvement in reeling methods.
- (g) The encouragement of filatures.
- (h) The establishment of an agency to perform some of the functions of a Conditioning house.

(2) *Letter dated the 10th February, 1933, from the Bangalore Silk Filature and Throwing Mill, Bangalore.*

PROTECTION TO INDIAN SILK.

I beg to forward herewith copies of two communications on the subject of the bounty given by the Government of China to exports of raw silk from that country.

The first is in the nature of a communique issued by the Bureau of Sericulture in Japan, a translation of which has been furnished by a friend in Tokyo.

The second is an extract from a market report issued by Messrs. J. C. Chinai and Company, Shanghai, who ship raw silk largely to India.

May I venture to suggest that the Board should be moved to verify the correctness of the information conveyed in these communications by addressing the Consular authorities in China? Perhaps the opportunity may also be taken of ascertaining whether any other assistance in the shape of bounties such as a shipping subsidy, etc., is given to exporters.

Trusting that the Board may consider my proposal favourably.

Enclosure No. 1.

Copy.

No. 10, Rue du Consult,
Telephone No. 11740,
Shanghai 16th May, 1932.

SILK MARKET REPORT.

Reports from all consuming centres are dull and bearish and no demand is forthcoming. In order to help local filatures in liquidating the large stocks of steams on hand, the Chinese Government has granted a bounty of T. 100 per bale on the export of old steam filatures in storage now. In addition the export duty has also been abolished on the above. But the recent further slump in Japan (declining to a new low level of Yens 420) has rendered the competition too strong to admit to any unloading on a large scale in our market.

Enclosure No. 2.

COUNTER MEASURES TAKEN BY CHINESE GOVERNMENT TO THRIVE HER SILK INDUSTRY.

The Bureau of Sericulture.

June, 1932.

The Government of China has decided to take counter measures to thrive her silk industry as enumerating below.

1. The Government will exempt the traders of silk from export duty, having been thirty young per bale of silk.

2. The Government will subsidise them for the export of silk stocked in the stores of Chaing-su and Chechiang (both of them are the centres of the silk industry in China) and for that reeled out of dry cocoon, by 100 young per bale.

3. The Government will supply the filature the fund for purchasing the cocoon to reel by the amount of 3,000,000 young to Chaing-su and Chechiang through the Banks of Government.

4. The Government will lend them money as much as possible on the mortgage of silk or cocoon in their stock within the limit of 4,000,000 young totally.

5. The Government will increase the import duty of artificial silk cloth by 40 per cent.

6. The Government will spend all estimated sum of 8,000,000 per year income by the above increased tax for the development of the silk industry for coming six years successively.

(3) *Note by Mr. F. L. Silva, dated the 24th April, 1933 regarding Measures to be adopted for the development of the sericultural industry.*

In response to the desire of the Board that I should indicate what measures the Government should adopt for the proper development of the industry, if the scheme of protection is sanctioned. I give my views below.

2. As stated in my reply to question 60, the measures necessary are the following:—

- (a) the cultivation of better varieties of mulberry;
- (b) the provision of facilities for irrigation;
- (c) the propagation of better yielding races of silk-worms;
- (d) more extensive issue of disease free seed;
- (e) improvement in reeling methods;
- (f) the encouragement of filatures;
- (g) the establishment of an agency to perform some of the functions of a Conditioning House.

(a) CULTIVATION OF BETTER VARIETIES OF MULBERRY.

3. Such experiments in the cultivation of mulberry as are carried out at present are confined to the existing farms. The area of these farms is limited, and besides their primary purpose is to subserve the needs of the grainages attached to them. If experiments are to be carried out on a satisfactory scale, these farms will have to be extended or new ones established.

4. I would suggest a provision of Rs. 20,000 per annum for this purpose. But it must be added that much of this expenditure will be recouped by the sale of leaves to the rearing department of Government (which will require cocoons for grainages) or to private rearers.

(b) PROVISION OF FACILITIES FOR IRRIGATION.

5. The absence of wells precludes the irrigation of mulberry over large areas during the dry season. It would therefore be a great gain if wells could be provided wherever it is possible to do so at a moderate cost. In those cases in which wells could be sunk or tube wells bored at a cost of Rs. 50 or less, I suggest that Government should give a subsidy of half the cost.

6. Other directions in which help should be given for a period of 10 years are (a) a privileged rate for water supplied to mulberry fields from irrigation canals and tanks; and (b), the provision of pumping sets (where electricity is available) on hire purchase terms extending over long periods.

7. The expenditure under this head would probably not exceed Rs. 5,000 per annum.

(c) PROPAGATION OF BETTER YIELDING RACES OF WORMS.

8. This work should in my opinion, be entrusted to a committee on the lines of the Central Cotton Committee to be set up by the Government of India—preferably in Bangalore—to carry out research work connected with the industry. The farms which are not attempting to do the work are not in a position to conduct it on an adequate scale and would, if relieved of the work, be better able to look after the grainages. It is not only increased yield that has to be secured; but the quality of silk obtained from the Mysore and Bengal races is not all that can be desired and has to be improved. What is required is an effort to find out whether its soft nature can be altered and the quality brought up to stand comparison with the univoltine silk of Japan and Shanghai. This will entail scientific work of a high character which can only be done in a properly equipped Research Institute. The expenditure will, no doubt, be borne by the Government of India.

(d) MORE EXTENSIVE ISSUE OF DISEASE-FREE SEED.

9. This is the most vital requirement for the development of the industry and no effort should be spared until the whole of the seed required can be provided in the shape of cellular seed. At present the budget provides Rs. 12,800 for the Grainage Section (excluding building), Rs. 5,000 for aided Grainages (inclusive of instruments) and Rs. 4,000 for Seed Campaign—a total of Rs. 21,800. There may be some other expenditure bringing up the total to, say, Rs. 25,000. Out of this however Rs. 12,000 is recovered by the sale of seed, so that the actual expenditure is only about Rs. 1,000 a month. I venture to think that the net expenditure under this head should be in the neighbourhood of Rs. 10,000 per month.

(e) IMPROVEMENT IN REELING METHODS.

10. This should be brought about by the introduction of an improved charka similar to that devised by the Madras Sericultural Department. The cost of a two-basin charka is estimated at about Rs. 75 and if it is made payable in instalments (and perhaps some portion remitted in those cases in which it is worked on proper line), it will not be difficult to persuade reelers to go in for this type of charka.

(f) ENCOURAGEMENT OF FILATURES.

11. There is little doubt that if the industry is to be properly developed, that can only be done by large scale production in power filatures. Unfortunately the filature is already at a disadvantage as compared with the charka, both in the matter of the purchase of cocoons and the cost of production. Being on the spot, the charka reeler can use influence on the rearer and get the pick of the crop for his limited requirements. Further, his cost of production is less and his rendita more favourable than that of the filature. Unless filature silk fetches a sufficiently high price to compensate for these disadvantages, the position of filatures will always be one of difficulty.

12. This will be further accentuated if the scheme of protection does not make a difference in favour of filature silk. With the protection he gets, the charka reeler will be in a position to raise the price of cocoons, which again will react on filatures. The consequence will be that the development of filatures will be retarded. For this reason I venture to suggest that Government should give a subvention to filatures which manufacture not less than 15,000 lbs. of silk a year. This subvention should be equal to the cost of 2 lbs. of cocoons per lb. of silk that being the minimum difference in rendita between the charka and the filature—or, say, 12 annas per lb. of silk.

13. If some such assistance is given, I estimate that the production in filatures will be, first year, 30,000 lbs.; second year, 60,000 lbs., third year, 1,00,000 lbs. When that production is reached it may be quite possible to reduce the degree of assistance. After 5 years it may be expected that the production will be at least 200,000 lbs. and that filatures will be able to devise measures to minimise the competition of charkas for cocoons and will not need any further assistance from Government.

14. On this basis the amount of the Government subvention for a period of five years will amount to about Rs. 4 lakhs. The amount may appear rather large at first sight; but the expenditure will have a permanent and very marked effect on the industry. The more rapidly it is developed, the less will be the recurring charges to be incurred by Government.

15. I have suggested a minimum of 15,000 lbs. advisedly. In my opinion it is not desirable to have small filatures of about 20 basins, manufacturing six or seven hundred lbs., a month. They will not be able to make an impression on the surrounding area or to appreciably reduce the production of charka silk; and their only effect will be to increase competition among themselves. The unit should be at least 40 to 50 basins.

(g) A CONDITIONING HOUSE.

16. For the present the duty of the Conditioning House should be limited to that of grading silk, i.e., testing parcels of silk tendered by clients and certifying to their quality. No parcel should be accepted unless it consists of at least 25 lb. It should be made a condition that when the silk is not tendered in "books" like foreign silk or Indian filature silk, the Conditioning House will only return it packed (at the cost of the tenderer) in "Books" using its own material for the purpose and making up the skeins in some distinguishing manner. This will furnish some guarantee that the silk has really passed through the Conditioning House and it will not be easy to mix tested and untested silk. The certificate will also specify the number of skeins in each "book". If, however, the silk is tendered by a buyer at his own risk, this packing need not be insisted upon.

17. The management of the Conditioning House may well be entrusted to a Branch of the Research Committee referred to above. The initial equipment is not likely to cost more than a few thousand rupees and this would, no doubt, be provided by Government. The recurring cost should not exceed Rs. 500 a month and can be met from fees. If the fees are moderate I expect that at least 250,000 lbs. will be tendered for inspection in the first year or two. At the rate of half an anna per lb., the income would be Rs. 650 a month; the fee may therefore be smaller in the case of large parcels. In course of time the quantity submitted for testing is bound to increase largely.

18. If the Conditioning House undertakes any special work such as ascertaining conditioned weight, degumming loss, length of skeins, testing thrown silk, etc., it will charge a special fee for this purpose.

19. In considering to what extent Government can be legitimately called upon to bear additional expenditure for the development of the industry, I venture to stress the point that the grant of protection is calculated to make a substantial addition to the wealth of the State. In the first place there is likely to be an addition of at least one rupee per lb. to the value of the existing output—say, Rs. 7 lakhs. Secondly, production may be expected to increase progressively to the extent of 2 lakhs of lbs. each year, valued at Rs. 12 lakhs. Thus, as a direct consequence of protection, during the next five years there will be an increase (a) of Rs. 35 lakhs on the existing production and (b) of Rs. 180 lakhs on the increased production, provided proper measures essential for such development, are taken by Government, in whose hands alone they lie. This increase is in the price of raw silk alone and does not take into account the benefit to the weaving industry. It may well be claimed that to bring about so large an accretion to the wealth of the State, an expenditure of 2 lakhs per annum is by no means too heavy a price to pay. Nor is it unlikely that such expenditure will be recouped both directly and indirectly through the development of the industry.

(4) *Note by Mr. F. Z. Silva, dated the 24th April, 1933.*

CAN MYSORE SILK STAND A HANDICAP AGAINST CHINA SILK.

Mysore silk has all along found a market only in Southern India (including the Bombay Deccan). In the past, the weaver accustomed to it used no other silk. His business was to produce one standard quality of goods for which Mysore silk was well suited; he had a steady market for that quality and he had no need to go in for any other. Therefore he had no use for any other silk. Similarly his neighbour who was weaving with China silk had a market of his own for a different class of fabric and there was no occasion for him to manufacture a new line of goods.

Thus we find that both Mysore and China silk existed side by side in the same market. Neither had a decided advantage over the other, whether in respect of quality, price or suitability for work. The consequence was that each kept the other in check but was not able to oust it. It is for this reason that the Mysore industry has never flourished and that it has not found new markets.

Until four or five years ago, most of the China silk that used to be imported into India was hand reeled silk of inferior quality. In intrinsic worth it was not the equal of Mysore silk; in working qualities it was not much superior. Hence it was natural that it should fetch a lower price.

So long as the margin of difference remained constant it served as a balancing factor. But when, as has happened in recent years, that margin widened, not only in price but in quality as well, the balance was upset in favour of China silk. The weaver found that with China silk, he was able to produce a fabric substantially cheaper than before; and as, in the interval, the purchasing power of the customer had also diminished, the fabric he now produced, was found acceptable.

It is true that, as in former years, Mysore silk still fetches a higher price than China silk. But price is not only the factor to be taken into consideration; a factor of greater importance to the industry is that of production. There is no doubt that the production is steadily diminishing, and I am not at all sure that the estimates given by the Department are not much higher than the real figures. Not only is foreign silk imported in increasing quantities but fine cotton saris and other cloths which are now produced in Indian Mills have acquired a great vogue and are displacing Indian silk.

Even the limited demand which now exists for Mysore silk is due to certain special circumstances. There are a number of weaving establishments which confine themselves to the manufacture of high class Indian silk goods. Others manufacture purely swadeshi goods for which they use Mysore silk. Thirdly, many weavers who want to pass off their goods as Indian silk goods use China silk for warp and Mysore silk for weft.

If the price of China silk should rise, these three classes of consumers will no doubt, continue to use Mysore silk, and possibly, the consumption may increase to some extent. But it is doubtful whether the weaver in general who has now learned to appreciate the working qualities of China silk and has found a market for goods produced with it, will be persuaded to give up its use so long as there is an appreciable margin in its favour. I venture to think that this is unlikely, at any rate until there is a general increase in the purchasing power of the country.

In any case whether Mysore silk re-establishes itself in the South Indian market or not, it is clear that it will have no chance of being introduced in other parts of India, until there is a distinct difference in its favour, either in price or quality. The latter can only be brought about gradually, provided the demand should arise. But it would be a necessary condition for the creation of the demand itself that the price should be sufficiently attractive in the first instance. If therefore the duty should be so adjusted as to result in a handicap against the home production, it seems very

unlikely that the grant of protection will enable Indian silk to replace foreign silk.

The Kashmir Silk Manufacturing Company, Srinagar.

Letter No. 476, dated the 12th February, 1933.

We understand that the Government of India is looking at the case of "Protection to handloom silk industry". We beg to say that as always has been the desire for preference for the handloom industry even when compared with the power loom on the part of our Government, we beg to suggest as follows:—

Firstly.—The custom duty on imported non-British silks should be considerably raised so as to prevent Japan from dumping the Indian market. The silks for instance "Habutai," "Cepe Twill," both manufactured from pure silk and silk and spun silk costs us the cottage industrialists not less than 40 per cent. the price for which Japan is selling the same in the markets of India. Hence at least customs duty should be raised by 40 per cent. in case of manufactured silks.

Secondly.—There should be some duty say 5 to 10 per cent. levied on the products of Power looms. India is mainly an agricultural country and to allow the advantage of protection to few Capitalists and Millowners who can run hundreds of power looms and the consumer should suffer is the very thing that should be guarded against. Handloom weaver is the person who should benefit from this protection and not the fat capitalists millowner.

Thirdly.—The question of the supply of raw material (silk yarn) must be properly dealt with. No doubt it is profitable to manufacture from foreign yarns, because they are cheaper than Indian yarns. The ultimate price in the Bazar should be kept in view. It is plain that foreign silk yarn used in manufacture in India is far greater than the Indian silk yarn. We hear that sericulture has to get protection. But protection should be to the extent that the price of silk yarn does not differ from that in existence or some control should be effected. Anyhow what we mean is that difference in the custom duty on silk yarn and silk cloth as existing already should increase under the new tariff.

Fourthly.—There should be some discouragement for manufacturing from foreign yarns; hence some excise duty or some other should be imposed on the Indian manufactured silks from foreign spun silk or natural silk. Most of the cottage industrialists have indulged too much in the use of spun silk. Some excise duty ought to be levied in such a case so that our sericulture industry may also improve along with handloom industry.

In conclusion we would request you to discriminate between the handloom and power loom industry and to see that Japan's dumping may be stopped.

Bengal Silk Mills Company, Limited, Calcutta.

Letter dated the 21st February, 1933.

With reference to your letter No. 5, dated the 11th January, 1933, I have the honour to say that owing to general economic depression the Bengal Silk Mills Company, Limited, has been working only partially and not to its full extent. I shall, however, give such replies as may be given from the materials that I have now in hand.

1. The Mills were started about 51 years ago. Raw silk was then available in fair quantities from some of the Districts of Bengal specially from Murshidabad. The twisting and weaving was carried on mostly with the

raw silk obtained from the Province. For the last 17 or 18 years there has been a sudden decline in the production of silk and that decline has steadily continued. It is difficult at the present moment to say what area is covered by silk production and what number of people is dependent on the Industry.

2. The Factory is managed by the Managing Agents of the Company Messrs. Hashim Ariff Brothers of No. 3, Amratolla Lane, Calcutta, who carry on the manufacture on behalf of the Company and finance when necessary.

3-20. The Company is not concerned in the silk rearing Industry. It is concerned with manufacture of silk fabrics. It has therefore not in hand the materials which will enable it to answer these questions. The silk yarn is obtained by the factory mostly from Kashmere.

21. The Factory does not manufacture yarn but weaves Series and Satins, fancy and plain, with yarn obtained from Kashmere.

22-23 & 25-32. The Company has no experience of hand reeling and is therefore unable to answer these questions.

24. Indian filatures are stronger and more durable but they cannot compete in price with imported stuff.

33. Since 1927 business has been very dull. The machinery has been worked with a view to keep the factory going. There has been no improvement except that some improved methods of dyeing have been adopted. The buildings were built substantially and do not show much depreciation and the machinery has been kept in order.

34-36. We do not deal directly with raw silk except in the shape of yarn.

37. Raw silk is used mostly for weaving into cloth and lace and also twisting in various kinds of Bands and Ties.

38 & 39. We have no information as to the total Indian demand but the production of raw silk is steadily shrinking.

40. The inward railway freight is lighter than the outward. This should be adjusted. In order to encourage the growing of silk the railway freight from the growing centres to the manufacturing centres should be very considerably reduced.

41-45. As this Factory does not ordinarily manufacture cloth with imported yarn we are unable to give the information.

46-48. The imported silk is 40 per cent. of the price of pure Indian silk. The quality, however, is far inferior but owing to finish and low price imported silk is gradually pushing out the Indian silk from the market.

49. We have nothing to do with silk-waste.

50. Spun silk made of silk-waste is a feasible Industry in India.

51-54. The decline in the Industry is due to competition on from foreign parts and to want of encouragement in the country.

55. Import duty on raw silk will not affect our Industry injuriously.

56-60. Protection for manufactured silk will save the dyeing Industry and will give rise to silk rearing overlarge areas thus finding employment for a considerable part of the rural population as also giving impetus to home Industry in the shape of cocoon-rearing and reeling. It will also support a large number of expert hands in the factories and in the sales organisation.

The Bombay Silk Mills, Bombay.

Letter dated the 9th March, 1933.

With reference to the interview that we had with the members of the Tariff Board on Thursday, 2nd instant, we beg to enclose herewith information under the following heads as desired by Messrs. Boag and Batheja.

1. Regarding cost of production of a typical silk fabric made entirely from Indian raw silk, we enclose herewith a statement showing the cost under different heads. This represents the actual figures for one of our own fabric (Statement marked A).

2. Regarding approximate cost of a conditioning house (Statement marked B).

3. Regarding the comparative qualities of Indian and Foreign silk we have made enquiry in the market for competitive quality of Mysore and Bengal silk. The price of Japanese silk supplied by Messrs. Mitsui and Company, Limited, 20/22 denier which compares very favourably with the best quality Mysore silk is Rs. 6-14 per lb. including the duty. This is the actual wholesale price ruling in Bombay.

The price of Chinese silk from Manchow Filature 13/15 denier is Rs. 10-8 per seer of 72 tolas. This quality can compare with hand reeled silk of Bengal.

We hope this information will be found useful by the Tariff Board. We shall thank you to acknowledge receipt of this letter as well as the enclosures.

Enclosure 1.

STATEMENT A.

Works cost per yard of a typical silk cloth made entirely from Indian silk (width at 45"—25 yards per piece).

	Pies.
1. Raw material	242-88
2. Labour including all allowances	88-00
3. Fuel and Power	15-40
4. Water	2-00
5. Stores consumed	7-36
6. Repairs and Maintenance	6-00
7. Supervision and Establishment (no office allowance)	19-20
8. Depreciation and Interest on working capital	36-80
9. Insurance	3-54
10. Rent, Rates and Taxes	11-50
11. Packing	2-00
12. Selling expense through agent	24-00
13. Finishing charges (cost of finishing not included under any other item)	26-00
Total cost per yard	484-68

Average output: 8 yards per loom per day.

Enclosure 2.

STATEMENT B.

Approximate cost of the equipment necessary for a small conditioning house (the price is given in Swiss Francs for delivery c.i.f. Bombay).

1. *Conditioning Ovens.*—New electric type as supplied to the new conditioning houses in Yokohama, Shanghai and Canton. Price Swiss Francs 2,327-50. This price includes electrical motor, fan and heating apparatus as well as the fine scale for analytical work. About 5 such Ovens will be required so that 5 different samples can be analysed at a time. The total cost on this account will therefore be Swiss Francs 16,637-50.

2. *Serimeter* or automatic, strength and elongation testing machine. This machine costs 850 Swiss Francs and at least 3 such machines will be necessary. The total cost on this account will therefore be Swiss Francs 2,550.

3. Special analytical scales for analytical work in general.—The price for each scale is Swiss Francs 375. Taking 3 such scales to be necessary, the cost for these scales would be Swiss Francs 1,125.

4. Special silk wrap reel for measuring 450 meters of silk prior to its being weighed to ascertain the count. This apparatus is suitable for finding out the count directly from the skeins and no winding to bobbins is necessary. The price per reel is 678.50 Swiss Francs and 3 such reels will be necessary. The total cost for these will be Swiss Francs 2,062.50.

5. Special yarn quadrant for weighing the skeins measured on special reel mentioned in the previous paragraph. Price per quadrant Swiss Francs 206. The price for 3 such quadrants will therefore be 648.

6. One twist testing apparatus. There will be few occasions when the conditioning house will be called upon to test twisted silk. At the same time it will be desirable that it should be equipped with at least one such apparatus. The price for the best type with an electric motor for moving the untwisting clamps will be Swiss Francs 1,025.

The total cost of all the apparatus is Swiss Francs 24,048.

Taking the approximate exchange rate to be one Swiss Franc equal to Rs. 75, the total cost of all the apparatus would therefore be Rs. 18,036. Over and above this, it may roughly be estimated that about Rs. 7,000 will be required for furniture, and other equipments, the total cost of equipping a small conditioning house can be estimated at Rs. 25,000. This of course does not include the cost of a building but the provision of a suitable building will require a sum of at least Rs. 50,000. It will be noticed that on the most economical basis the estimate of a small conditioning house would be Rs. 75,000. This is of course a very rough estimate and the conditioning house which will be equipped at this cost will indeed be a very small one as compared with similar houses in Japan, China, France or Switzerland; but a good beginning can very well be made with this small conditioning house.

Shri Rama Silk Throwing Factory, Bangalore City.

(1) Letter dated the 13th March, 1933.

I would like to place before the Board the following facts relating to the origin and development of Shri Rama Silk Throwing Factory, Bangalore.

The concern was started on a very small scale some five years back with a small plant of 500 twisting spindles of Swiss Make. The Plant has been working for some time in Bombay by a Parsee gentleman and the business, there, had to be wound up for want of good market and good raw silk. Being a very small plant the charges of twisting were comparatively high owing to high rent and high wages in Bombay.

When the plant was re-erected in Bangalore, we were able to twist from 10 to 12 lbs. of silk per day. There were then two other concerns capable of producing 12 lbs. per day. Our twisted silk used to be disposed of in Belgaum and other centres in Bombay Presidency. The weavers here found it profitable to use this machine thrown silk rather than silk twisted by hand. Better quality of raw silk reeled in Filature and Domestic basins had not been finding a good market outside the State. We entered into a contract with the Government Filature for the purchase of their entire output and devoted our attention to create a continuous demand for Mysore Silk both in and outside the State. It may be claimed that the improvement in reeling was rendered possible by the activities of the throwing

plants. The total number of spindles to-day is about 10,000 spindles as against 1,000 spindles some years ago.

The Throwing plants have rendered a signal service to the Sericultural Industry. They have also created a change in fashion among the consumers. The demand for thick fabrics made out of Charka silk has gone down and its place is taken by finer fabrics made of filature silk. The measure of the extensions in the activities of the Throwing Plants indicates the extent of the reeling industry has improved.

But the success of the twisting industry is governed by two factors, availability of good raw silk in the locality and the demand for twisted silk at rates which would cover the cost of raw silk and its twisting charges. Ordinary charka silk cannot be handled by the Twisting Plants. Improvements in Reeling are very essential if the Throwing Plants should have sufficient raw materials. The need for organizing up-to-date filatures and introducing Domestic Basins on a larger scale is borne out by the experience of the Twisting Factories. The attention of those interested in these subjects should be devoted more to this aspect of the question by starting filatures on larger scale for the adequate supply of high grade and standard silk. This will be facilitated if protection to Silk Industry is afforded. If necessary, legislation might be introduced to regulate the reeling by Charka.

As regards the second factor governing the Throwing Industry, namely, Machet for machine twisted silk, the larger imports of twisted silk from China and Japan is a source of serious trouble to the country. Apart from the imports of Organzine silk, spun silk from Japan and Italy has encroached upon the market for twisted silk in India. In any scheme of protection to the Indian Sericultural Industry, account should be taken of the imports of twisted silk and spun silk and their effects on the silk industry protected in India. There is no use if the imports of spun silk and twisted silk are allowed to come into the country unchecked. The pitch of the duty to be imposed should be worked out on the basis of the duty on raw silk. Another point to be considered in this connection is the necessity of levying a duty on the imports of spun silk fabrics also. It is becoming a common practice to pass on spun silk fabrics as SWADESHI SILK FABRICS and thus the consumers are deceived and the demand for real silk may be curtailed by the imports of spun silk.

If the Government of India and the Provincial Governments pursue a co-ordinated policy with regard to the Sericultural Industry, it is perfectly possible to develop the sericultural industry to such an extent as to make India self sufficient in this respect.

Thanking you.

(2) *Replies to the Questionnaire issued by the Indian Tariff Board in regard to Silk Industry in India received from Shri Rama Silk Throwing Factory, Bangalore City, dated the 13th March, 1933.*

23. The cost of twisting one lb. of silk:—

	Organzine.	Tram.
	Rs. A. P.	Rs. A. P.
Labour	0 6 6	0 4 6
Power	0 2 6	0 1 6
Supervision	0 2 0	0 1 0
Repairs, etc.	0 4 0	0 2 0
Selling expenses	0 1 0	0 1 0
Other expenses	0 1 0	0 1 0
Depreciation, etc.	0 8 0	0 5 0
	<u>1 9 0</u>	<u>1 0 0</u>

The cost of raw silk is not taken to account as it is generally supplied by the customers. Our factory can produce on an average 100 to 125 lbs. of organzine twist or 200 to 250 lbs. of tram. On the whole 75 per cent. the production is organzine and the remaining 25 per cent. is of tram.

24. Throwing mills in India are not at any disadvantage as compared with the throwing plants in foreign countries, as regards all the items of cost taken together. As regards the disposal of the throwing waste, foreign competitors realize better prices than we do here. They realize from As. 12 to Re. 1 per lb. whereas we can't hope to realize more than As. 4 to As. 6 per lb. The mills producing spun silk create a good demand for waste in other countries whereas there are no such mills in India.

25. Our plant consists of 5,000 spindles in all, capable of producing 150 lbs. of organzine or 300 lbs. of tram per day of 10 hours. The factory came into existence recently and it has been gradually extended.

26. A plant of 2,400 spindles with proper adjustment is likely to be most efficient and economic in the present conditions of India. The cost of machinery and building for such a plant will work out to Rs. 75,000 to Rs. 80,000.

27. & 28. Nil.

29. In our throwing section 150 persons are employed mostly of women and children. Adequate supply of labour is always available in Bangalore. 90 per cent. of labour employed is skilled labour. The minimum period taken to acquire the skill for working in the factory, ranges from two to three months depending upon the class or community to which they belong. The women and children of the weavers' community pick up the work in about two weeks.

30. (a) The wages paid to children range from As. 3 to As. 5 per day of 5½ hours and As. 5 to As. 8 for women per day of 10 hours.

(b) Labour here is by no means inefficient for throwing purposes as compared with similar labour outside India.

(c) Recently Sericultural Department has started twisting classes in some silk reeling centres. The Department of Industries organize demonstration in silk twisting in selected centres.

31. The particulars regarding the block value of the plant are as follows:—

Plant and Machinery Rs. 1,30,000.	} as on last deepavali our year end.
Building Rs. 35,000.	
Land Rs. 5,000.	

32. The present value of land and building would go upto Rs. 50,000. The price of plant and machinery would go up by 25 per cent. to 30 per cent. of the original value as the duty is now increased the exchange with Switzerland, France and Italy supplying these machines.

33. It is only last year that the full equipment of the present plant was completed, hence it has not been possible to create any reserve. It is proposed to reserve 7½ per cent. towards the depreciation, of the value of machinery and 5 per cent. of the value regarding the building.

34. Most of the silk throwing plants work for commission on raw materials supplied to them by customers. The commission charges for twisting are for warp from Re. 1-12 to Rs. 2-8 per lb. and for weft from Re. 1 to Re. 1-4 per lb.

Some of the plants buy silk on their own account, and sell the twisted silk at such prices as would cover the twisting charges.

Both the above practices are followed by us. The working capital required by us per year is Rs. 3,00,000 and the amount actually being required is Rs. 50,000 the amount revolving six times a year. Double the amount is required if we do not undertake commission twisting.

Financial assistance is obtained from banks and merchants dealing in raw silk, the rate of interest being 7½ per cent. to 9 per cent. per annum. In the initial stages of the concern Government also gave a loan towards the purchase of machinery at a rate of 6 per cent. interest.

35. As an adjunct to our throwing section we have organised a dye house and a silk weaving department in the interest of our business. The capacity of the dye house is about 4,000 lbs. per month. At present, we work 17 looms, capable of producing fabrics about 3,500 yards per month valued at about Rs. 8,500.

Enclosure.

Current rates of Raw and Thrown Silks.

	Mysore silk.	Canton silk.
	Rs. per lb.	Rs. per lb.
1. 28/32D., Raw—		
(a) Filature silk	8-4 to 9	4-8
(b) Domestic basin	7-8	..
2. 28/32, Thrown for warps—		
(a) Filature organzine	10-4 to 11	6-8
(b) Domestic organzine	9-8	..
3. Weft—		
(a) Filature tram	9-8 to 10-2	5-10
(b) Domestic tram	8-12	..
4. 20/22, Raw silk—	..	4-7 to 4-8
5. 20/22, Thrown for warps—		
3-ply organzine . . . . .	..	6-10
2-ply organzine . . . . .	..	6-14
6. 20/22, Thrown for weft—		
4-ply tram . . . . .	..	5-10

Plassey Silk Factory, Bengal.

Letter dated the 2nd May, 1933.

With reference to your letter No. 240, dated the 30th March, 1933, and my interview with the President of the Tariff Board while in Calcutta, I beg to send herewith my written statement in connection with the enquiry into the Sericultural Industry having particular reference to the difficulties experienced by me in running the Plassey Silk Factory.

Please be good enough to acknowledge the receipt and oblige.

Enclosure.

Statement by Nanda Lal Bose, Proprietor, Plassey Silk Factory, Bengal.

The sericultural industry of Bengal is to-day at the verge of its grave. It is indeed most deplorable that this industry which has been from time immemorial a pride of the country as well as a permanent source of great national wealth should now be allowed to die under the most unfortunate and lamentable circumstances. Bengal in times gone by was the only silk producing centre in India and she was for several centuries called the "store-house of silk and cotton" not only for Asia but for Europe as well. It is therefore most regretted that this industry having outlived so many centuries of political and economic vicissitudes should now under the administration of the most civilised and enlightened Government succumb to the forces brought about by the influences which are in other countries and in other parts of India being successfully counteracted. It is still more to be regretted that while other silk-industries in India which are of only very recent growth are gradually and steadily developing and prospering, this unfortunate industry of this unfortunate province, though admittedly

the best and the oldest, has been all along left to struggle quite by itself and to wither away at last quite uncared and unnoticed.

The decline of the silk industry in Bengal has been caused by many circumstances, both internal and external, and has brought in untold of hardships and devastations to many quarters. It is not my purpose in this statement to go into every one of the causes nor do I think myself competent to do so. I shall only give here a brief account of the events connected with the filatures during the period of decline, and particularly, of the Plassey Silk Factory I believe the filatures are most badly affected and hardest hit. In fact almost all the filatures in Bengal have totally closed down. Only three or four small factories which are still struggling will in all probability follow the suit ere long.

The Plassey Silk Factory was one of the leading filatures in Bengal. It had once a very brilliant career. It was built and established in the year 1874 by a French Company, named Louis Payenne and Company. The silk industry at that time, like so many other industries of Upper India, was a monopoly business with the Europeans. It was then confined within a circle of only three or four very big concerns. The filatures yielded huge profits in those days. No less than 270,000 lbs. of very fine silk were turned out from the filature along. Besides, there were innumerable cottage "Chais" from which about 950,000 lbs. of coarser silk were reeled by old and indigenous process. All the filature silk was exported to Europe.

About the years 1913-14 the sericultural industry of Bengal began to show veritable signs of decline and the prospects became very gloomy. The supply of cocoons began to fall shorter and shorter. The deterioration in the quality of cocoons became more and more marked and dreadful. It is not in my humble capacity to go into the causes which were at work at that time an which were responsible for this decline. Mr. N. G. Mukherji who was entrusted with the investigation by the Government of Bengal very thoroughly studied the situation and most intelligently brought out some very useful facts. And Mr. R. H. Ghose, M.S.A., also in his handbook. "Decline of the Silk Industry in Bengal and how to arrest it" very thoughtfully surveyed the situation and suggested some remedies. But one thing which, I think, escaped their observation is what I am going to write in short below. This, I should say, is the economic cause resulting from inequitable distribution of Industrial wealth. Though enormous profits went into the pockets of these European merchants, the poor rearers of cocoons had to go satisfied with a very poor return of their labours. I have heard of many instances where the poor sericultural villagers were subjected to oppression and extortion. They were quite helpless and powerless before these wealthy and powerful Europeans. Being thus exasperated and driven to despair many sericulturists are heard to have given up the plantation of mulberries and rearing of cocoons. They felt that they were like "drawers of water and beware of wood", for the sole benefit of the Europeans. I am therefore of opinion that this object and pathetic condition of silk rearing population led to create certain circumstances which contributed among others to the decline of the industry at that time. Viewing this state of internal disorder with alarm and apprehending the approach of a serious collapse, the bigger ones of these European concerns wound up their business and went home. These Europeans no doubt devoted a considerable amount of their brain and energy towards the development and improvement of silk reeling. Had they paid equal attention to the betterment of the sericultural side of the industry, and had they cared to go deeper into the causes that had already set in to bring about the decline, they could surely avert the danger and arrest it for the time being. What the Government of the country did in practical effect at that time I am not aware. The seriousness of the situation was not perhaps brought home to the authorities.

About the years 1919-20, that is after the Great European War, some temporary signs of revival became visible. A very small attempt was then made by some generous-minded men to pull up this dyeing industry. And

it was at that time that I came to be interested in the silk industry and with the above object in view I purchased the factory at Plassey and started a limited liability company; but having struggled hard for ten years the company had to be voluntarily wound up.

At the first stage of our enterprise we had a better time. My factory worked with only 42 basins, although the boiler was big enough to run the filature with 100 basins. The filature when working in full swing turned out a total output of 3,000 lbs. of silk annually and employed a labour of 100 persons besides the clerical and supervising staff. The finest silk in 10/12 deniers was reeled for shipment to France. But only for a very short time our silk could be exported through the agency of a Calcutta firm named Dellacroix et cie (which is now defunct). The next coarser grades in 16/20 and 20/24 deniers were reeled for sale to the Bombay mills, such as Chhoi Silk Mills and David Sassoon Mills and to some small factories at Ahmednagar, Satara and other places. But they barely provided a market to the extent of 25 per cent. of our total products. The rest had to be sold locally to the up-country (Marwari) dealers who wanted only cheap stuff caring more for the quantity than for the quality. Greatest care was taken in reeling silk of the shipment quality which in most cases was re-reeled by means of hand-driven re-winding machines. But no such care was taken for reeling the silk which was sold locally, because the Indian prices were not at all paying in comparison with those offered by the shippers. The shipment prices ranged from Rs. 20 to Rs. 26 per lbs., while the local prices for the best grades varied from Rs. 15 to Rs. 19 and those of the inferior quality fluctuated from Rs. 12 to Rs. 14 only. I am of opinion that the quality of Bengal silk began to fall off its standard from the time when it ceased to sell abroad. There was no suitable and sufficient room for its appreciation in India. Being left in the hands of the unscrupulous and uneducated up-country dealers it lost its superiority in quality in the matter of fineness, glaze, tenacity and elasticity. It now stands at a position which is much below the rank of other silks of the world.

The latter stage began from the year 1926 when for various reasons the demand for Bengal silk began to diminish. The price fell down abnormally. Not an ounce of Bengal silk could be exported. The Indian silk mills and factories gave up the manufacture with Bengal's natural silk. Even the weavers in many places preferred artificial silk and found it less expensive and more profitable. The market was flooded with a heavy influx of imported artificial and spun silk yarns and fabrics. In those quarters where natural silk was still used for manufacture came the Japanese and Chinese silk with their cheapness in price and superiority in quality. The Kashmir and Mysore silk are also pushing their way and have already got some hold in the market. But Bengal silk is nowhere. Its price is to-day Rs. 5 to Rs. 3 per lb.

Besides those above external influence there are also a number of internal forces which have been eating into the vitals of the sericultural industry of Bengal. It is a fact, however, unfortunate it may be, that a single disease-free cocoon is not available in Bengal to-day. An average silk-worm in Bengal is admittedly much smaller in size, much weaker in strength, much poorer in richness and much less developed in growth than any silk-worm of the world. The Bengal worms are multivoltine and according to the opinion of some experts this is said to be one of the reasons of their degradation. Then, there is the most dreadful "Pebrine" the spread of which has been allowed throughout every tract of the cocoon growing districts without any check or restraint. I am firmly of opinion that Pebrine is one of the main causes of decline of the industry. The Government have not taken any effective means to stop the spread of this disease. There are of course some Government nurseries in Bengal; but they have not been able to make themselves popular with the cocoon rearers for whose benefit they have been set up. I am constrained to remark that the Sericulture Department to the Government of Bengal have not fully discharged

their duties in this respect. Then, there are the cocoon rearers themselves who play a considerable part in the work of the degeneration of their own industry. I have had constant touch with these people and had personally been to many of their houses. I have myself watched the rearing and feeding of the worms as done in their houses mostly by the female members. I was struck at the wretched condition of these nurseries. The method of breeding and rearing of cocoons is not certainly as it, should be. The worms are underfed and they are reared on defective leaves and under unhygienic surroundings. The rearers are not quite alive to the importance and usefulness of ventilation and cleanliness. The worms are reared in mud-walled rooms without any openings except a single door. No care is taken to discriminate the diseased worms from the healthier ones. No precaution is also taken against the spread of an epidemic. These acts of commission and omission on their part are surely due to their poverty and want of education. Much of the mischief could, however, be prevented, had there been some system of Government inspection armed with adequate legislation on the lines adopted in other countries.

Now I endeavour to give below some of the causes which, as I found in my experience, led to the decay of the silk industry in as much as I was concerned in connection with the Plassey Silk Factory. They are the following:—

- (1) Loss of the European market.
- (2) Loss of the market for Indian Mills and factories in Bombay, Punjab and other places.
- (3) Heavy imports of artificial silk, spun silk and other cheap silken stuff.
- (4) Heavy imports of natural silk from Japan, China, France and Italy.
- (5) Gradual and steady degeneration of Bengal cocoons.
- (6) Want of organisation and technical education among the cocoon rearers and silk reeler.
- (7) Orthodox adherence on the part of the reelers to the old indigenous processes and crude methods, and lack of appreciation and want of adaptability in taking to new and up-to-date improvements in the machinery.
- (8) Want of adequate capital and Bank facilities.

Let me conclude by suggesting some means which in my humble knowledge appear to be some of the remedies among many others that may yet be applied to save the industry even at its last gasps. These are the following:—

- (1) Protection Tariff to successfully cope with the foreign competition in regard to natural silk.
- (2) Tariff wall against all kinds of artificial or imitation silk yarns or fabrics.
- (3) Government to start a strong and extensive propaganda throughout the silk growing districts of Bengal by creating a thorough organisation among the rearers with a view to induce them to resume their former calling and by creating small institutions for imparting technical education by means of lantern lectures and other scientific experiments.
- (4) Loans to the rearers and reelers by money, seeds and machinery repayable at least after five years by instalments without interest.
- (5) Establishment of a central silk committee with official and non-official members having their duties to control, advise and guide the reelers and also to find out a market for them, to regulate the prices and to give subsidies where necessary.

**Mr. Syed Hussani Padasha Khadri, Owner of Reeling Establishment
and Proprietor of the Mysore Domestic Basin, Thimmasandra
Village, Kankanhalli Taluk.**

1. It is opined by our elders, that the sericultural industry was introduced into our village, about 100-120 years ago, by a certain Mohamadan gentleman Thiriyayi Budan Saheb. In our village those engaged in this industry, are practising it, as their chief spare time occupation. I am practising this industry, as a sericulturist of Thimmasandra Village.

The following statement shows year war, the area under mulberry in our village, number of families engaged in silk-worm rearing and also number of families engaged in reeling industry:—

Year.	Area under mulberry. Acres.	No. of families engaged in rearing.	No. of families engaged in reeling.
1927-28	20	30	28
1928-29	18	23	25
1929-30	14	20	17
1930-31	20	35	19
1931-32	23	37	16

During 1930-31, the rates for our silk were favourable and so mulberry cultivation was carried on, over a greater area. But during 1931-32, there was a fall in the prices of our silk and therefore, many of the ryots in our village, have uprooted mulberry in their lands.

2. Sericultural industry can be divided under 3 heads:—

(i) Mulberry cultivation and rearing of silk-worms.

(ii) Reeling and (iii) Marketing of silk.

(i) *Mulberry cultivation and silk-worm rearing*—Are done by the respective family members of the sericulturist. This industry does not require much capital. If any amount is required for the industry the rearer takes a loan either from the local Sowcars or from those who purchase cocoons from him, for reeling and repays the amount, after the cocoons are sold. All the cocoons produced in our village are sold to reelers direct. Sometimes, the cocoons are sold to reelers, through brokers. When cocoon market was favourable the cocoon producers used to get cash amount for the cocoons sold by them. Since the cocoon market is very dull at present, cocoons are sold to reelers on credit.

(ii) *Reeling and (iii) marketing of silk*.—The owners of reeling establishment employ coolies for reeling cocoons, under their personal supervision. The reeling industry requires some capital. Those who do not possess this capital, take it either from silk merchants, as loan or from Sericultural Co-operative Societies. They repay the loan, after their silk is sold. Formerly, all the silk produced, used to be sold for cash. But now, the price of our silk has fallen, and so the silk merchants get the silk from reelers, on credit and pay them in small instalments, according to the quantity of silk sold. The silk merchants sell our silk to their clientele in Tanjore, Gadag, Kumbakonam and Hubli and get commission from both parties.

3. (1) In the present organisation the maximum quantity of cocoons, which could be produced in our village is 15,000.

(2) About 1,200 lbs. of silk can be prepared.

Year.	Cocoons produced.	Silk prepared.
1927-28	13,000	1,000
1931-32	12,000	900

Since we have not maintained accounts for the last five years, we have furnished accounts only for 2 years. There is about 10 or 15 per cent. of variation between our estimate of the maximum production of cocoons and the actual production. The causes for this variation are:—

- (i) Failure of crops due to bad seeds.
 - (ii) River flooding the mulberry garden and making the leaves unfit for use.
 - (iii) Fall in the price of cocoons.
4. 13 lbs. of cocoons (Mysore) are required for preparing 1 lb. of silk and 10-12 lbs. of cross-breed cocoons are necessary for preparing 1 lb. of silk.

We do not know the silk contents of cocoons of China and Japan. We do not know that some filatures in India were closed down for want of an adequate supply of cocoons. But we know, that the reeling establishments in our village have been closed down, for want of demand for our silk.

5. Generally, we rear Mysore race worms. Recently, we have taken up the rearing of cross-breed layings, examined and supplied by Government Farms.

The female moth lays eggs completely within 24 hours. These eggs take 10 days to hatch. The eggs sheets are spread in a tray and kept in a cool place before they commence to hatch. Care should be taken, that they are not eaten away by ants, house lizards, etc., on the 8th or 9th day the colour of the eggs is changed to ash grey. To obtain uniform hatching the eggs are gently brushed with the help of a feather. After the eggs hatch, tender mulberry leaves are brought, finely chopped and sprinkled on the tiny worms. Sometime after, with the help of a feather, all the worms are gathered in one place and kept in a separate tray. During this period, feeding is given to worms once in two hours so that the leaves do not dry up soon. In this manner, the worms pass 4 or 5 days. On the 5th day, the worms cease eating leaves and go to 1st moult. When the worms are in moult, they should not be disturbed in any way. Strong draughts of wind should not be allowed to blow into the rooms where the worms are kept. The skin of the worms acquires shining appearance, when they go to moult. The worms take one day to come out of moult. After they come out of moult, they are given two feedings and their bed cleaned. Enough space is given to them to facilitate their growth and development. 4 or 5 days after they have come out of 1st moult, the worms begin to go to 2nd moult and the worms loose their appetite when they go to moult. The same precautionary measures should be taken now, as in the 1st moult. The worms come out of moult after a day. They are fed on leaves suitable to their growth and development. Their space is also extended. Similarly, the worms go to 3rd moult on 4th days after they have come out of 2nd moult. After they come out of moult, the worms are fed on little more matured leaves than in the 2nd stage. They pass 4 days after they have come out of 3rd moult and then go to 4th moult and come out of moult after a day. If the worms reared are Mysore race worms they are fed on tender leaves for 2-3 days, after they come out of 4th moult. In the case of cross-breed worms, they are fed on tender leaves for 3-4 days, after they come out of 4th moult. By this time, the worms become well developed and eat voraciously. 2 or 3 days after they are fed on tender leaves, the Mysore race worms are given matured leaves for 7 or 8 days, when they become ripe. The cross-breed worms are fed on matured leaves for 5-6 days, after they are given tender leaves for 2 or 3 days. Then all the worms ripe and begin to eject silk through an aperture in the mouth. These ripe worms are picked out and left on chandrikes to allow them to spin cocoons. The worms complete their spinning of cocoons in 3 days. On the 4th day, the cocoons are harvested and made ready for disposal.

6. (a) We do not construct a separate house for rearing silk-worms. The worms are reared in one portion of the house in which we live.

The rearing equipment necessary for a ryot who owns one acre of garden and rears silk-worms is mentioned below:—

	Rs. A.
1. 2 stands	8 0
2. Bomboo trays, 20	6 4
3. Earthen kundas, 8	0 6
4. Chopping Board, 1	0 4
5. Chopping knives, 2	0 8
6. Gunny cloth, 2	0 8
7. Chandrikes, 4	6 0
8. Lamp, 1	0 4
9. Rat trap, 1	0 4
10. Baskets for plucking leaves, 4	0 8
Total	22 14

If more number of chandrikes are required, the rearer takes the same for hire, from those rearers who have them, by them hire charges at the rate of 1 anna per day per chandrike.

The stands last for 6-7 years.

The trays last for 2 years.

The chandrikes last for 3 years.

Other articles last for 6 months.

The present rearing house could be improved in the following ways:—

- (1) By putting sufficient number of windows and ventilators, plenty of fresh air and light can be allowed into the rearing house.
- (2) By plastering the ordinary flooring of the rearing house with cement, dust rising from the floor could be prevented.
- (3) By covering the tiled roof of the house with straw, the worms can be protected from the heat of the tiles.

The rearing equipment may be improved in the following ways:—

- (1) The interspaces between one tray to another may be increased
- (2) The bamboo trays can be got smaller, to facilitate easy handling.
- (3) The chopping knives can be got smaller and thinner, so that the juice of the chawki leaves can be prevented from being wasted.
- (4) By using bamboo baskets for preserving leaves, the leaves can be prevented from becoming dry.
- (5) The spirals in the chandrikes can be got much closer so that the worms do not waste their silk while spinning the cocoons.

(b)

Race or Variety.	No. of days.	No. of cocoons per lb.	Length of filament.	Denier.
1. Mysore Race worms	32—35	500—550	..	..
2. Cross-breed worms	25—28	400—450	..	..

7. Foreign varieties of worms are reared in Government Farms. In my observation, the methods adopted for rearing them do not differ from the methods employed by us in rearing worms.

8. We rear worms out of seed cocoons produced in our country. There are separate seed producing centres here. They are Bidadi and Kunigal. In these two places, the natural advantages such as climatic conditions and fitness of soil are especially suitable for producing seed cocoons. Moreover, the rearers own small patches of garden and rear worms with great care and interest and the cocoons produced are invariably fit for seed. In recent years, Government have opened two Seed Campaign Offices one at Bidadi and the other at Kunigal.

A few intelligent seed rearers are selected in these two areas and are brought under Government control. The eggs they require are examined in Government Farms and supplied to them free of cost. Besides, the Seed Campaign Officers inspect their rearings in each stage and give them necessary instructions in rearing, etc. And if the cocoons produced are fit for seed, then, the Seed Campaign Officers certify to that effect and help the rearers in disposing of the cocoons. If, on the other hand, the cocoons are unfit for seed, then, all the cocoons produced are sold for reeling. The Seed Campaign Officers offer assistance to purchasers of seed cocoons who come from moffussil places.

One ounce of disease-free eggs cost Re. 1-0-9. Rearers purchase seed cocoons at the rate of As. 12 to Re. 1 per 1,000 seed cocoons and prepare about 3 ounces of eggs. But these eggs are not free from disease. Recently disease-free layings are prepared in the Aided Grainages and Sericultural Co-operative Societies.

9. We rear only multivoltine worms and raise 5-6 crops in a year. 42,000 worms are obtained in one ounce of eggs. The requirement of eggs for Thimmasandra village for one year is 200 ounces.

10. The silk-worms are fed on mulberry leaves. Generally mulberry is cultivated by the rearer in his own land. Some grow mulberry on leased lands. None in Thimmasandra Village purchases leaves for rearing worms

Initial cost for planting mulberry in one acre of irrigated land:—

	Rs.
1. Ploughing and levelling	32
2. Preparing pits	5
3. Cattle manure	12
4. Planting mulberry cuttings	8
5. Watering	15
6. Fencing	5
Total	77

Recurring cost of maintaining one acre of irrigated garden for one year:—

	Rs.
1. Land tax	5
2. Cattle manure, 30 carts and cart hire	40
3. Ploughing and weeding	38
4. Manuring the garden and pruning	10
5. Watering	40
6. Contingencies	5
Total	138

There are 7,000-8,000 pits in one acre of land. In Thimmasandra Village, the irrigated gardens yield about 10,000 lbs. of leaves. The average life of plant is 15-20 years. Then the old mulberry plants are uprooted and the garden replanted with fresh cuttings.

About 800-900 lbs. of leaves are required for rearing one ounce of eggs. 1 lb. of leaf costs 2-65 pies. Silk-worms are not fed on any other kind of leaves.

11. Recurring cost of maintaining one acre of irrigated garden in 1927-28:—

	Rs. A.
1. Land tax	2 8
2. Cattle manure, 30 carts	45 0
3. Ploughing	40 0
4. Manuring and pruning	10 0
5. Watering	50 0
6. Contingencies	5 0
Total	152 8

Recurring cost of maintaining one acre of irrigated garden in 1931-32:—

	Rs.
1. Land tax	5
2. Cattle manure, 30 carts and cart hire	40
3. Ploughing	30
4. Weeding	8
5. Manuring and pruning	10
6. Watering	40
7. Contingencies	5
Total	138

There is no crop alternative to mulberry. But in the gardens of Thimma-andra Village sugar-cane can be grown.

Cost of growing sugar-cane in one acre of land and receipt are mentioned below:—

	Rs.
1. Land tax	5
2. Ploughing	35
3. Fencing	17
4. Sugar-cane seeds	15
5. Planting charges	6
6. Manure (Cattle)	15
7. Garihattu	10
8. For preparing	15
9. Watering	20
Total	138
10. For mowing sugar-cane and preparing jaggary	15
Grand Total	153

Receipts.

Cost of 4,500 jaggary blocks got at Rs. 4-4 per 100 blocks, Jaggary—Rs. 191-4.

	Rs. A.
Receipt	191 4
Expenditure	153 0
Profit	38 4

12. In Thimmasandra Village, the ryots are not adopting any new methods to improve the supply and quality of leaves. Recently, Government have demonstrated to us the use of Chemical manures for mulberry. They have also demonstrated to us the advantages of raising mulberry topes, by means of which the cost of growing mulberry leaves could be reduced.

13. About 30 per cent. of the worms are lost from chawki to spinning of cocoons. The causes for this are:—

- (1) Some worms in chawki are lost due to intense heat and cold.
- (2) Some worms are lost while going to moult. Such of the worms that go to moult irregularly weak worms, unequal worms all these taken out from the rest of the worms and thrown away.
- (3) While the beds of the worms are cleaned, some worms are lost.
- (4) Some worms are lost from diseases.
- (5) Some are eaten away by rat, lizard, etc.

14. Silk-worms generally suffer from 3 kinds of diseases:—

- (1) Pebrine.
- (2) Flacherie.
- (3) Grasserie.

(1) *Pebrine*.—Silk-worms suffer from this disease in two ways: (a) through seed, (b) through contamination. By using disease-free layings pebrine affecting the worms through seed can be prevented. And by disinfecting the rearing house and rearing equipment the occurrence of contaminative pebrine could be checked.

(2) *Flacherie*.—The causes of this disease are the following:—

- (i) Bad leaves.
- (ii) Carelessness in chawki stage.
- (iii) Abnormal temperature in the rearing house.

By using proper kind of leaves and careful rearing this disease can be prevented.

(3) *Grasserie*.—The appearances of this disease in silk-worms is due to the fact that the worms are fed on leaves in which moisture content is more. If these leaves are not given to the worms, the occurrence of this disease could be stopped.

15. Climate is an important factor for the development of sericulture. It is essential to maintain proper temperature in the rearing house. The climatic conditions in our village are most suitable for mulberry cultivation and rearing of silk-worms.

16. About 50-55 lbs. of cocoons are produced (Mysore) in one ounce of worms and about 70-75 lbs. of cross-breed cocoons are produced in one ounce of worms.

18. In Thimmasandra village all the cocoons produced are used for reeling. They are not used for seed. In 1927-28 the price of reeling cocoons per lb. was from As. 8 to As. 9. Now the price of reeling cocoons per lb. is As. 5.

19. In our village the producers of cocoons do not reel them. So soon the cocoons are harvested they are sold irrespective of the cocoon market. The price of Mysore cocoons per lb.:—

- In 1927-28 from As. 8 to As. 9.
- In 1928-29 from As. 8 to As. 9.
- In 1929-30 from As. 5 to As. 6.
- In 1930-31 from As. 4-6 to As. 5.
- In 1931-32 from As. 4-6 to As. 5.

About 7½ lbs. of silk and 5 lbs. of silk-waste are obtained for 100 lbs. of cocoons.

20. All the cocoons produced in Kankanhalli Taluk are mostly reeled in country charkas. For the last 3 years, along with country charkas, I am working with a unit of five basins (Mysore Domestic Basins). The details furnished in the following statement refer to my Reeling Establishment:—

Year.	Raw silk.	Total amount.		
	lbs.	Rs.	A.	P.
In country Charkas for 6 years	3,600	30,123	13	3
In Domestic Basin for 3 years	444½	3,082	2	3

Country Charkas.—First of all, an oven is built in mud, on which a mud basin is placed. Water is put in this basin and boiled. Then the required quantity of reeling cocoons are put in the boiling water and cooked. Both the process of reeling and cooking is done in the basin. Another basin for supplying water is placed at a little distance from the basin, in which water is boiled. 2 poles are posted in front of the oven, a few feet apart. The reels are adjusted to these poles. A small eccentric wheel is adjusted to another big wheel, with a stick, so that the silk threads pass on the big wheel easily. The reeler sits between the poles and the oven and reels. When the cocoons are reeled, if there are any breaks in the thread, the reeler does not knot the threads but allows the broken thread remain as they are.

Mysore Domestic Basin.—First of all water is boiled in the reserve tank which is placed on the oven. This tank has two taps from which cooking basins on either side are supplied with water. The water in the tank is let out to the cooking basins. The water in the cooking basin is raised to boiling, and steamed cocoons are cooked. After the cocoons are cooked and the gum removed the cooker takes the cooked cocoons in his left hand and removes the floss which comes out in the form of silk-waste.

After the floss is removed, the cooker hands over the cooked cocoons to the reeler. The reeler puts them in the reeling basin, which is connected to the reserve tank by means of a pipe. The temperature of the water in the reeling basin will be from 40°C.—45°C. A few inches above, the reeling basin is connected to what are called Jette Bouts. A few inches below, the reeling basin is connected to 5 disc wheels. The reeler sits behind the reeling basin. Just above his head, a few feet apart from the reeling basin are number of wheels connected to the Jette Bouts in the reeling basin. The top wheels over which the silk thread winds itself, are connected to a distributing rod by means of an eccentric wheel. The reeler will have an eye over the number of cocoons used at a time and keeps to this uniformity till he reels all the cocoons. The work in the reeling basin is once started, the reeler takes the true ends of the silk thread and attaches it to Jette-Bouts. When the threads come to the top wheels, they become compact and converted to what are called croissures and finally silk. When all the cocoons are reeled, the silk obtained is removed from the wheels, cleaned and then skeined, by means of the skeining machine. The reel is rotated by hand power.

21. In Country Charkas:—

Year.	Silk.	Average rate.	TOTAL.	Silk-waste.	Average rate.	Amount.	REMARKS.
	lbs.	Rs. A. P.	Rs. A. P.	lbs.	A. P.	Rs. A.	
1927-28	1,210½	10 10 10	12,924 9 3	..	..	..
1928-29	728½	7 14 9	5,765 2 0	546	8 0	773 0	
1929-30	760½	8 1 9	6,161 0 3	513½	7 9	249 2	
1930-31	363½	6 13 3	2,483 13 0	70	7 10	75 3	
1931-32	150½	5 15 6	895 14 9	70	2 0	8 12	Not sold yet.

In Mysore Domestic Basin:—

Year.	Silk.	Average rate.	TOTAL.	Silk-waste.	Average rate.	Amount.	REMARKS.
	lbs.	Rs. A. P.	Rs. A. P.	lbs.	A. P.	Rs. A.	
7-10-1930 .	41½	6 7 3	264 7 9	361	6 0	13 8	Work commenced from 7-10-30.
1931 .	293½	6 13 3	1,909 11 3	240	6 0	90 0	
1932 .	100½	7 8 0	817 15 3	120	7 0	52 8	

13 lbs. of cocoons are required on an average to prepare 1 lb. of silk in country charkas and 16 lbs. of cocoons are required to prepare 1 lb. of silk in domestic basin. For 1 lb. of silk prepared in country charkas ¾ lbs. silk-waste is obtained on an average. For 1 lb. of silk prepared in domestic basin, ½ lb. of silk-waste is obtained on an average. Since the reelers working in my domestic basin are new, it is not possible to say the average quantity of silk and silk-waste obtained in domestic basin.

22. Cost for installing a country charka:—

	Rs. A.
1. For building a mud oven (cost of mud, labour, etc.)	0 6
2. Copper basin, 1	8 0
3. 4 wooden pieces, 6 ft.	1 8
4. Sorting stick, 1	0 14
5. Wheel, 8 ft. diameter (if incidental repairs are done the wheel lasts for 5 to 6 years)	6 0
6. Rope and miscellaneous	0 12
Total	17 8

2½ seers of silk can be prepared in country charka, in a working day of 8 hours. I have purchased from Government a unit (5 basins) of Mysore Domestic Basin. For a working day of 8 hours, we can prepare 5½ lbs. of silk. The basin lasts for about 25 years.

ANNUAL EXPENDITURE OF MY REELING ESTABLISHMENTS.

Country Charka.

No.	Details.	1928.	1929.	1930.	1931.	1932.
		Rs. A.	Rs. A.	Rs. A.	Rs. A. P.	Rs. A.
1	Cost of cocoons	7,281 11	4,732 10	4,180 0	1,810 14 0	873 4
2	Labour (for 1 lb. of silk).	642 13	364 0	398 12	190 8 0	79 12
3	Fuel	226 14	110 10	118 12	56 11 6	23 7
4	Water	226 14	113 12	17 8	56 11 6	23 7
5	Supervision	453 12	273 0	237 8	113 8 0	46 14
6	Transport charges, etc.	302 8	182 0	190 0	90 12 0	37 8
7	Contingencies	151 4	91 0	95 0	45 0 0	18 12
	TOTAL	9,286 12	5,867 0	5,237 8	2,364 7 0	1,103 0

Mysore Domestic Basin.

No.	Details.	7-10-1930.	1931.	1932.	REMARKS.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	
1	Cost of cocoons .	302 8 0	1,992 0 0	655 1 6	When I installed my Domestic basin, I was given free reeling school for 6 months.
2	Labour .	Free reeling school.	245 0 0	87 1 4	
3	Fuel, water, etc. (for 1 lb. of silk).	50 14 9	362 9 9	135 7 9	
4	Supervision .	7 11 9	55 1 3	20 9 3	
5	Repairs to thread .	5 3 0	36 11 6	13 11 6	
6	Transport charges .	6 7 9	45 15 6	17 2 6	
7	Contingencies .	5 3 0	36 11 6	13 11 6	
	TOTAL .	378 0 3	2,774 1 0	942 13 4	

Cost for preparing 1 lb. of silk in Country Charka.

No.	Details.	1928. Average rate.	1929.	1930.	1931.	1932.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	Cost of 12 lbs. of cocoons.	6 2 6	6 5 6	5 8 0	5 1 4	4 1 0
2	Labour for 1 lb. of silk.	0 8 8	0 8 0	0 8 5	0 8 3	0 8 6
3	Fuel .	0 2 8	0 2 0	0 2 0	0 2 0	0 2 0
4	Water .	0 3 0	0 2 6	0 2 6	0 2 6	0 2 6
5	Supervision .	0 6 0	0 6 0	0 5 0	0 5 0	0 5 0
6	Transport charges, etc.	0 4 0	0 4 0	0 4 0	0 4 0	0 4 0
7	Contingencies .	0 2 0	0 2 0	0 2 0	0 2 0	0 2 0
	TOTAL .	7 12 10	7 14 0	6 15 11	6 9 1	5 9 0

Cost for preparing 1 lb. of silk in Mysore Domestic Basin.

No.	Details.	From 7-10-1930.	1931.	1932.
		Rs. A. P.	Rs. A. P.	Rs. A. P.
1	Cost of 16 lbs. of cocoons .	7 5 4	6 12 6	5 15 6
2	Labour .	Reeling School.	0 13 4	0 12 8
3	Fuel, water, etc., for 1 lb. of silk .	1 3 9	1 3 9	1 3 9
4	Supervision .	0 3 0	0 3 0	0 3 0
5	Repairs to threads .	0 2 0	0 2 0	0 2 0
6	Transport charges .	0 2 6	0 2 6	0 2 6
7	Contingencies .	0 2 0	0 2 0	0 2 0
	TOTAL .	9 2 7	9 7 1	8 9 5

30. (i) (a) Reelers working with country charka are paid As. 8 per day of 8 hours.

(b) Reelers working with domestic basin are paid As. 10 for a day of 8 hours. 5 reelers are working with my basin.

(c) Not known.

(ii) We do not know.

(iii) There is no scope to give proper training to reelers who work with country charka. By careful observation and actual work for some period a man becomes fit to work with charkas. After I installed a unit of Domestic Basin, Government gave me a reeling school for a period of 6 months. Students, who were trained here, have now learnt the work of reeling. In addition to this, the students are given Government scholarships and are trained in rearing technique and grainage technique. Whenever the departmental staff go to villages on tours for inspection of crops, the ryots are given necessary training in rearing technique.

37. Raw silk is used in manufacturing cloth, sarees, maguta, lace, etc.

42. We do not know any scientific method of sorting and grading silk. But the practice in vogue is that the silks go after the name of the place in which they are prepared. Lustre uniformity, cleanliness, etc., are taken into consideration for judging high and low grade of silk. It is better if Government establishes a "Conditioning house" for sorting and grading silk scientifically in our country.

51. The serious decline of our sericultural industry is due to the heavy import of foreign silk into our country, which are sold at much cheaper rates than our silk. The result is there is no demand for the silk prepared in this country.

53. If we consider the serious decline of our industry we cannot believe that this decline is of a temporary character. Because, for the last 3-4 years the price for our silk is steadily declining and if this should continue for sometime more, our industry will surely be killed.

55. The present method of levying revenue duty on raw silk is for getting income to Government. This does not at all afford protection to our industry. If our industry is to be saved from the overwhelming foreign competition, a protective duty should be levied on foreign silk.

56. (a) The necessary natural advantages for our industry namely, copious supply of raw materials, cheap power, adequate supply of labour and a local market—all these are found in our country.

(b) If protection is not given to our industry, it is not likely to develop at all and as a result, it is sure to disappear from our midst.

(c) If immediate protection is given to our industry we are confident that it can eventually face world competition.

57. (a) Protection given should be such that it equalises the selling rates of foreign silk and our silk and fetches remunerative prices.

(b) We propose that it should be given in the form of levying protective duty on foreign silk.

(c) Our ryots are ignorant and illiterate. They should be trained to adopt new methods, by means of which cost of producing cocoons and preparing silk could be reduced. And to train them in new methods takes some years—15 to 20 years. Till then protection is necessary and should be given.

58. If protective duty is levied on foreign silk, (1) the silk textile industry may be slightly affected and (2) the number of handlooms may be reduced. The weavers are daily paid labourers; wage earners. They weave cotton cloth with the reduced number of handlooms instead of silk cloth. This does not affect them. The prices for silk cloth may be slightly enhanced. Since monied people buy them, the enhanced rates for silk cloth do not affect them much.

No other industry is affected by levying protective duty on foreign silk,

60. If protection is afforded to our industry for 15 or 20 years we can reduce the cost of preparing silk—

- (i) At least a rupee can be reduced for 1 lb. of silk.
- (ii) By raising mulberry topes, by growing tree mulberry and by using chemical manures, we can reduce the cost of leaves.
- (iii) By using disease-free layings and by rearing cross-breed worms, we can reduce cost of producing cocoons.
- (iv) By discontinuing use of country charkas and by installing the Mysore Domestic Basin, we can reduce the cost of preparing silk.

The Sholapur Weaving and Spinning Mills, Bombay.

(1) *Letter No. 42, dated the 16th January, 1933.*

The Tariff Board has been given to understand that you are using in your mill at Sholapur silk-waste of less than 1" in size which is known as the "fluff" taken off the cocoons. The Board is also informed that it is your intention to purchase a plant for the mill from Europe for cutting long fibres of silk-waste into small pieces. I am therefore directed to request you kindly to supply the Board with a detailed statement on the subject. The Board would also like to have information on the following points:—

- (a) whether sufficient supply of this kind of silk-waste is available;
- (b) the price at which it is delivered at the mills;
- (c) the places from which it is obtained.

(2) *Letter dated the 27th January, 1933, from the Sholapur Spinning and Weaving Company, Limited, Bombay.*

We beg to acknowledge the receipt of your letter No. 42 of the 16th instant, and beg to inform you as under in reply to your queries made in your letter under reference:—

The silk used is waste silk of different varieties and not silk taken direct from cocoon, and the average length used generally is about 1½". In cases where this staple length could not be obtained silk-waste of a longer length has to be cut by hand to lengths suitable for spinning with Egyptian cotton. Owing to the difficulties of obtaining silk-waste of suitable staple length there being ample supplies of long stapled silk, it was thought that if a machine could be procured for cutting it into exact lengths, it would solve the difficulties of drafting staple with which we have to contend at present; hence the inquiry for the machinery which would do this work.

Referring to the information regarding:—

(1) Whether sufficient supply of this kind of silk-waste is available:—

In the short staple—No.

In the long staple—Yes.

(2) The price at which it is delivered in the mills, varies according to quality from As. 8 to As. 10 per lb.

(3) The places from which it is obtained:—The most suitable short staple silk is obtained from Srinagar. Other longer varieties from Kashmir, Bangalore.

Messrs. Forbes, Forbes, Campbell and Company, Limited, Karachi.

(1) *Letter No. 40, dated the 16th January, 1933.*

The Tariff Board has been given to understand that your firm is doing the business of re-pressing silk-waste bales by subjecting them to a hydraulic

pressure which considerably reduces their size and saves a lot of steamer freight. I am directed to request you to be so good as to supply the Board with detailed information regarding the method of its working, the capital outlay necessary for erecting such a plant as also the cost and staff required for running it.

(2) *Letter dated the 2nd March, 1933, from Messrs. Eduljee Dinshaw, Karachi.*

Your letter No. 40 of the 16th January last has been handed over to us by Messrs. Forbes, Forbes, Campbell and Company, Limited, Agents of our Press Factory in Karachi, for the necessary reply.

We have looked into the matter of re-pressing silk-waste bales. These bales are pressed in the ordinary hydraulic press used for pressing wool and cotton. They are subjected to some amount of pressure. As for ordinary wool, the machinery, etc., that we use for this, is an ordinary Blacksmiths Wilson's patent Hydraulic Press and we have no doubt you will be fully conversant with cost, etc., of such presses. We therefore do not think it worthwhile to give any further details. The number of bales that we press is a very small one.

(1) *Letter dated the 23rd December, 1932, from the Bengal Co-operative Silk Union, Limited, Malda.*

With reference to your letter No. 15014, dated the 17th December, 1932, addressed to the Secretary, the Bengal Co-operative Silk Union, Limited, about the proposed enquiry by the Tariff Board into the present condition of the Silk Industry I have the honour to say that as the activities of the Bengal Co-operative Silk Union are confined mainly to the district of Malda I am not in a position to speak for the whole province. It will appear from the statistics of the Agricultural Department that Malda occupies the premier position among the districts of Bengal in the production of raw silk.

Most of these silk cocoons are reeled locally in country reels but a part is taken to Murshidabad district where the reeling is done in country reels as well as in a few steam filatures. As the industry is in the hands of persons of small means and some Marwaries, no accurate statistics can be given. But from the testimony of persons with an intimate knowledge of the industry as well as numerous factories in ruins it is absolutely clear that the industry was once a flourishing concern and is now declining owing to increasing foreign competition.

2. The particulars called for in paragraph 3 of the letter of the Tariff Board under reference are given in a separate annexure A as far as they could be obtained at such short notice.

3. As regards the effect of the increasing importation of foreign silk the following statistics obtained from the five of the leading silk merchants of this district will tell their own tale:—

(*Vide Annexure B*.*)

There are other merchants besides these but they have either closed down or taken to other business; several have become bankrupt. One big firm Messrs. Nagindas Full Chand has given up dealing in Malda silk and is now importing Chinese silk. The silk yarn produced in Malda is used only in handlooms; the yarn cannot be used in weaving mills for the absence of uniformity. Bengal silk is highly priced for its lustre; the fabrics produced with Bengal yarns are also sought for their feel and weight. In these respects the Bengal silk has an advantage over the foreign silk. But there is a gap between the prices of Bengal silk and foreign silk. The present price of Chinese and Japanese silk of the varieties which compete with Bengal silk range from Rs. 7-4 per seer to Rs. 9-8 at weaving centres.

* Not printed.

The local reelers have therefore been forced to sell their yarns at Rs. 8 to Rs. 10 per seer which is hardly remunerative. The cost of transit and merchants' profit should be included in this. Again the weekly Market Report of Bangalore, dated the 15th December, 1932, shows the following quotations for foreign silk as compared with Bengal (Malda) silk (per seer of 80 tolas):—

Canton steam filature—

20/22 and 24/26 denier Rs. 10-2.

28/32 and 32/36 denier Rs. 9-4.

Bengal silk—

20/22 denier Rs. 12.

16/18 denier Rs. 13.

Generally speaking foreign silk competing with Bengal silk sells cheaper by a margin of at least Rs. 2 per seer. It is this gap in the price more than any thing else which is gradually shutting out Bengal silk from the market. My information goes that many centres in south and upper India which were using Bengal silk from time immemorial have ceased to use Bengal silk and have started using cheaper imported silk. The price at which foreign silk sells is uneconomical for the local producers.

4. The economic importance of this industry even when Malda district is considered can be gauged by the following table:—

Area under mulberry 15,000 acres.

Amount of cocoons 9,950,320 lbs.

Value of cocoons Rs. 22,37,500.

Amount of yarn 608,850 lbs.

Amount of waste silk 298,150 lbs.

Value of waste silk Rs. 5,424,300.

Number of rearers 53,511.

Number of reelers 4,080.

Number of weavers 595.

The District Gazetteer (published in 1918) gives the area under mulberry in Malda at 23,000 acres and at page 59 describes vividly how the industry has gradually declined. Even as it is, the industry is of sufficient importance to deserve protection, and given such protection and provided efforts are made to improve the reeling and twisting operations there is nothing to prevent the industry from attaining the heights which it once occupied.

5. As regards paragraph 5 of the letter of the Tariff Board as far as my information goes silk weaving centres in Bengal use indigenous yarns though strong attempts are being made to substitute foreign yarn. The present preference to swadeshi goods is working as a powerful incentive to the use of indigenous yarns. Silk is generally used by well-to-do people any small rise on the price is not likely to affect the demand adversely. In the palmy days of Bengal silk, even within the last ten years the price of silk never went down to the level it has done now. Production of silk in Bengal in those days was much higher than now. If the price be the same or even the price of Bengal silk be a little higher than foreign silk people will still prefer Bengal silk for its intrinsic qualities. The tariff if imposed will increase the price of silk and there is a natural fear that the handloom weavers may be adversely affected. It will be interesting to consider by making enquiries at weaving centres outside the province whether the number of handloom weavers has increased or decreased during the decade in spite of the fall in the price of silk yarn. Lastly, the present low price of silk has affected the handloom weavers of cotton goods in the province. Fine saris of Tangail and Dacca have been largely ousted from the market as silk saris can be obtained at moderate prices. My idea is that the demand of silk fabrics produced in handlooms will not

fall inspite of the rise in the price of yarn. If the price of raw silk continues at this level which is unremunerative many rearers and reelers will be ruined. Many have already been ruined in the past. They have as much claim to protection as the hand loom weavers. Many weavers of cotton fabrics have been ruined due to a fall in the price of silk goods.

6. The matter requires detailed examination which is not possible in this time at my disposal. I reserve the right of adding to my reply by a subsequent communication.

ANNEXURE A.

Reply to the points raised in para. 3 of letter No. 557, dated the 5th December, 1932, from the Secretary, Tariff Board, to the Secretary to the Government of Bengal, Department of Agriculture and Industries, Calcutta.

3. The Sericultural industry is carried on in the districts of Murshidabad, Malda, Rajshahi, Birbhum, Midnapur, Bankura, Bogra and Howrah and so far as the districts of Malda and Murshidabad are concerned vast population of the districts is more or less dependent on the Silk Industry. Leaflet No. 6 of the Department of Agriculture, Bengal (Sericulture in Bengal), containing detailed particulars of the silk industry in the province is enclosed herewith.

3. (1) Number of people engaged in the industry in the Malda district and their gross earning may be roughly stated as follows (as per Census taken during the year 1927-28):—

Technical designation.	Number.	Gross earning in Rupees.	Approximate profit in Rupees.
Silk-worm rearers	53,511	22,37,500	15,27,800
Cocoon reeler	4,080	54,24,300	2,21,400
Matka spinners	12,108	3,42,000	1,14,000
Silk weavers	595	1,85,760	74,304
Matka weavers	237	1,13,760	32,232

Gross earnings and profits shown above have since been very much affected due to hard competition and general trade depression.

(2) *Rearing*.—The rearers in Malda raise 4 to 5 crops of multivoltine indigenous races annually, the seeds being supplied by Government Nurseries, selected rearers and ordinary rearers. They are financed by the village Mahajans and Co-operative Credit Societies. As soon as the cocoon crops is raised they dispose of the outturn to local reelers. Some portion of the cocoons are also exported to the district of Murshidabad where they are reeled in steam filature.

Reeling.—The local reelers are financed by the Marwari merchants who deal in yarn and it is these merchants who dictate price for the several qualities of yarn in each crop and the price of cocoons fluctuate according to the price of yarn quoted by these merchants. There is no steam filature in Malda and the entire quantity is reeled in country charka. These yarns again are all consumed in hand loom. The reeled thread is thus sold to the dealers who export them to several provinces.

Weaving.—The weavers generally use charka silk and they are financed by local Mahajans who have also looms in their houses. These Mahajans distribute the cloths manufactured to all the districts and provinces.

In reeling and weaving operations crude implements are used.

(3) In this district as well as in other silk districts of Bengal indigenous races are reared. The foreign races do not stand the climate of Bengal. Generally the following races are reared:—

Nistari—April to September.

Chhotopoloo—November.

Barapoloo—January to March.

(4) All these races of silk-worms as mentioned in 3 (3) are reared indoor. When the cocoons which are kept for seed purpose, cut out the moths, are allowed to pair for 6 hours when the males are taken off and the females allowed to lay eggs. The eggs hatch out under natural conditions the period varying from 9 days (in summer) and 16 to 24 days (in winter). When the tiny worms hatch out they are carefully fed with finely chopped leaves. With age they are given whole leaf. As the worms grow, silk begin to form in the glands and when fully developed they form cocoons and cover themselves inside. The period from hatching to forming of cocoons extends from 22 days in summer to 40 days in winter. When the worms are ready for spinning cocoons they are picked up from the feeding trays to special spinning trays where they form cocoons. Particular care is to be taken of the worms to guard against any outbreak of disease—flies—as also bad weather. After the cocoons are spun the crysalis inside are killed by sunning them and are disposed of to the reelers for preparing thread out of them.

Mulberry which is the only food plant of the silk worms reared in Bengal is a perennial plant and cultivated in the fields which do not go under flood water. 5 to 6 harvests are made during a year so as soon as the plants attain a height of 3 feet they are cut down from the ground level and allowed to grow again. In other countries however they allow the mulberry plants to grow as big trees. The advantage of trees over Bush plantation is that the cost in cultivating the former is much less. The Bush plantation requires frequent spading, hoeing and weeding operations and at least once they are to be thoroughly manured. The cost of cultivation per acre comes to Rs. 80 including cost of manure. The annual yield of leaf per acre of Bush mulberry comes to 200 maunds in average.

(5) Five to six broods are produced in a year and in average 7 to 8 layings of Nistari (300 eggs being in average per laying) and 8 to 10 layings of Chhotopoloo and 5 to 6 layings of Barapoloo produce one kahon of cocoon (1,280 make a kahon) which is ordinarily equivalent to 2 lbs.

(6) It is estimated that production of cocoons in the province is about 10,000,000 kahons.

To produce above quantity of commercial cocoons roughly 200,000 kahons of cocoons are required for producing moths. Therefore the proportion is 2 : 100.

(7) The cost for producing 100 kahons (1,280 make a kahon) of cocoons are given below:—

	Rs.
(a) Cost of seeds	2
(b) Cost of foods for worms (66 mds. of leaves at As. 8)	33
(c) Cost of appliances	3
(d) Cost of labour	12
(e) Other expenses	2
Total	52

Cost of labour of females and children of the rearing family has not been taken into consideration which if taken into consideration the cost approximately comes up to Rs. 75 for an outturn of 100 kahons.

(8) From 1920 to 1927 the average price of cocoons per maund (equivalent to 40 kahons) was between Rs. 45 to Rs. 35.

1928-1931 Rs. 35 to Rs. 25.

1932-33 Rs. 25 to Rs. 16.

(9) So far the district of Malda is concerned cocoons are reeled only in country charkas. The cost of reeling 1 maund of cocoons (green) in country charka is estimated at Rs. 4.

(10) From the census made by the Sericulture Department in the year 1927-28, it was estimated that the total production of reeled silk in Bengal was between 1,200,000 lbs. to 1,500,000 lbs. calculating the value of the same at the present market rate which is in average Rs. 5 per lb., comes to Rs. 60,00,000 to Rs. 75,00,000. The total production of waste can be estimated at 1,400,000 lbs., the price of which in current market rate comes to Rs. 1,75,000.

(11) It is estimated that out of the total production of 608,850 lbs. of reeled silk in Malda alone 30,000 lbs., are consumed in this district by the local weavers. Therefore the rest are exported to other provinces as well as other districts of Bengal. Figures of other districts are not available.

Regarding marketing reply in item 3 (2) as well as details under the head marketing of Leaflet No. 6* of the Sericulture Department (enclosed herewith) may be referred.

(2) *Letter No. 909, dated the 2nd/3rd February, 1933, from the Bengal Co-operative Silk Union, Limited, Malda.*

With reference to your letter No. 5 of 11th January, 1933, to the address of the Bengal Co-operative Silk Union, Limited, asking me to submit replies to the questionnaire in connection with the Sericulture Industry, I have the honour to submit herewith my replies as far as possible within the short time at my disposal. I should point out in this connection that my institution is the only agency in Bengal now working for the improvement and modernisation of the ancient Silk Industry of this province. This district grows nearly two-thirds of the raw silk of the province and, I should think, is the biggest silk-producing district in British India. Our institution has been established under Co-operative principles and is working with the advice and guidance of the Agriculture, Co-operative and Industries Departments of Government of Bengal. The shareholders have been largely actuated by philanthropic motives to ameliorate the condition of the cottage workers. It would be well if the Tariff Board could kindly give us a hearing by a *viva voce* examination.

Enclosure.

1. Sericulture is one of the ancient industries of Bengal. The district of Malda has been associated with it from time immemorial. According to one tradition the whole tract came to be known as Paundra Vardhan in the Aryan times from the tribe of Pundaris whose occupation even now is silk rearing. The English, Portuguese and Dutch had their trading establishments in this district; they mainly dealt in silk fabrics produced in this district. The diary of the Malda Establishment of the East India Company from the year 1680 onwards (the first Volume of which is in the Library of the Collector) shows that silk fabrics of various designs and kinds used to be manufactured at many centres of the district, at most of which the industry is dead now. Some European Companies after the monopoly of the East India Company was broken erected filatures at many places of the district; the ruins of these buildings bear testimony to the prosperity of this industry in the past. All over the district one comes across abandoned mulberry lands. 15,000 acres of land are under mulberry now. In the District Gazetteer (published in 1918) the figure is 23,000 acres; this shows to what extent the industry has declined during the last few years.

The following table shows the number of persons who directly make a living from sericulture in this district:—

Rearers	160,000
Reelers	5,000
Winders	5,000
Weavers	2,000
Matka spinners	15,000

There are some people who sell mulberry leaves to the rearers and make rearing trays, etc. It is very difficult to give their numbers.

2. There is one class of people who rear the worms; there is another class of people who reel the silk; a portion of green cocoons is bought by the reelers of Murshidabad district, but the bulk is reeled in this district by the reelers on country charkas. Only a few substantial reelers sell their yarn at outside centres, but the marketing is generally done by the Marwari merchants of Englishbazar (headquarters of the district) who have established trading connection at different places in India, such as Murshidabad and Vishnupur in Bengal, Nagpur, Benares, Amritsar, Ganjam, Conjeveram, etc.

The Marwari merchants advance money to the reelers for the purchase of cocoons; when buyers from outside the district are absent the producers have no option but to sell the cocoons to the local reelers at a price fixed by the reelers. The reelers are in their turn controlled by the Marwaris. Ultimately it is the Marwari merchants who dictate the price. Practically all the reelers (except a noted few) are in debt; the whole industry is in the hands of the Marwari merchants.

3. It is very difficult to give accurate figures. Provided that the conditions are normal and the producers are buoyed up by good prices the maximum production of green cocoons should be at least 170,000 mds. in this district. If the silk market improves and good prices are obtained many abandoned mulberry lands will be taken up as many families whose hereditary occupation is silk rearing have reluctantly taken to other trades. The figures for the last few years are not available.

4. The following table gathered from Maxwell-Lefray's Report on the Silk Industry in India (Vol. I, 1916, pages 94-95) and other sources gives some information:—

	No. of cocoons per seer.
Bengal—	
Nistari—July	1,000 to 1,230
Nistari—August	1,465
Nistari—October	1,040 to 1,120
Chhotopolu—November	1,000
Barapolu—February-March	900 to 960

Some filatures in Malda had to close down as the cost of establishment was very high and the supply of cocoons fell off.

5-17. It is better to refer to the replies of the Agriculture Department as the questions are rather technical.

19. The rearers sell the cocoons to the reelers. The average price of cocoons was as follows:—

1928 to 1931 Rs. 35 to Rs. 25.

1932 to 1933 Rs. 30 to Rs. 16.

Average yield of yarn on country reels is from $2\frac{1}{2}$ to 3 seers per maund of green cocoons depending on the season; the waste is about 3 to 4 seers per maund. The yield generally depends on the season. *Vide* reply to question 2 for the state of the market.

20. In this district all the silk is reeled on single charkas. It is better if the Tariff Board would kindly visit this district and see the charkas in actual operation. It is difficult to convey an accurate impression otherwise.

21. Figures not available. Also *vide* reply to question 19.

22. The initial expenses for running a charka are as follows:—

	Rs.
Charka	12
Basin and oven	5
A shed for the machine	10
Total	27

One shed can be used for 2 or 3 charkas. It takes generally 4 days (8 hours on each day) to reel one maund of green cocoon which yields from $2\frac{1}{2}$ to 3 seers of yarn and 3 to 4 seers of waste. One charka lasts at least for 2 years.

23. For each basin there are one reeler and one winder. They were being paid (for good men) at the rate of Rs. 12 and Rs. 6 per month. Besides them there is another man to supply fuels, etc., to several charkas. It has been calculated that one pound of yarn costs at least one rupee for reeling. Figures as required cannot be supplied.

24-27. I have no experience of filatures.

28. *Vide* reply to question 1.

29. Nil.

30. (i) Reeler Rs. 12 per month and Winder Rs. 6 per month (this year).

(ii) My impression from watching the reelers at work is that they are quiet efficient and possess a sort of hereditary skill.

(iii) There is one school in this district under the control of the Sericulture Department where sons of *bonâ fide* rearers are given a course of training in scientific principles of sericulture. In the silk area of this district in five ordinary Primary Schools lessons in sericulture are given.

31-34. Do not concern this district.

35. Spinning of waste silk (Chasm) is carried on a small scale, the bulk of the waste being exported to Italy. Spinning of pierced cocoons (*i.e.*, from which moths have emerged from seed purposes) is carried on an extensive scale, by widows and women of household in their spare hours by means of *Taku*. This yarn is used for making Matka fabrics which are much in demand in Bengal. At weaving centres rereeling is done by women by crude methods.

36. Does not concern this district.

37. I can not enumerate all the uses.

38. I have no complete idea.

39. It has been estimated in 1927-28 that out of total production of about 608,850 lbs. of reeled silk in Malda 30,000 lbs. were consumed in Malda alone: the rest was sold to other weaving centres of this province and outside Bengal. From figures of booking by railway which I have with me it is estimated that one-third of the yarn produced here was consumed in this province outside Malda. As for marketting *vide* reply to question 2.

40. *Statement of Railway freight according to distances from Malda Station:—*

Serial No.	Up-Country station.	Via	Distance.	Freight per Maund by Passenger Train.
			Miles.	Rs. A.
1	Conjeeveram . .	Manihari, Howrah, Waltair and Madras.	1,387	11 4
2	Trichinopoly . .	Ditto	1,580	12 12
3	Ayyampet	Ditto	1,538	12 8
4	Kumbakonam . .	Ditto	1,550	12 12
5	Arni Road . . .	Manihari, Howrah, Waltair and Katpadi.	1,501	12 8
6	Berhampore (Ganjam).	Manihari and Howrah .	675	6 11
7	Benares Cantonment	Katihar	400	3 15
8	Kashi	Manihari	398	4 5
9	Jahanaganj Road .	Katihar	375	3 12
10	Chittagong . . .	Amnura, Goalanda, Chandpur.	400	3 15
11	Vishnupur	Katihar, Manihari, Asansol	350	3 14
12	Rampurhat	Katihar, Manihari, . .	175	2 11
13	Kasimbazar	Lalgola	100	1 7
14	Nagpur	Katihar, Manihari, Howrah	1,000	8 15
15	Umrer	Ditto	1,029	9 3
16	Nagpur	Naihati and Howrah . .	925	8 8
17	Umrer	Ditto	950	8 4
18	Bagalkot	Katihar, Manihari and Howrah.	..	12 8
19	Amritsar	Katihar, B. B. K. and Shahrampur.	..	9 0
20	Jullundur	Ditto . . . . .	..	8 11

41. *Statement showing the prices at which during the past five years silk yarn have been sold in distant markets as compared with our home market:—*

Time.	Specification of yarn.	Price at which sold at home.	Price at which sold abroad.
		Rs. A.	Rs. A.
1927.			
December	Bakla Varna	19 0	19 6
1928.			
January	Varna No. 1	18 0	18 0
	2,000 Tana	15 12	16 8
		to	
		16 0	
	English Tana	16 4	16 8
	Lal Tana 2,200	17 0	17 8
	2,400 Tana	21 8	21 15

Time.	Specification of yarn.	Price at which sold at home.	Price at which sold abroad.
		Rs. A.	Rs. A.
1928—contd.			
February	2,200 Lal Tan	18 12	19 1
	Aul Varna	19 8	19 11
	2,400 Tana	20 12	21 0
	Bakla No. 2	17 7	18 0
	English Tana	16 4	16 7
March	Varna No. 4	16 8	16 11
	Varna No. 1	20 8	19 6
	2,400 Tana	24 4	24 7
	2,200 Lal Tana	19 0	19 3
April	Bakla No. 2	17 6	17 8
	Lal Tana 2,200	19 6	19 3
	2,400 Tana special	21 14	21 11
May	English Tana	18 0	18 3
June	English Tana, No. 1	18 0	18 7
July	Lal Tana 2,200	18 4	18 11
August	2,400 Tana	20 6	20 11
	Varna No. 1	18 8	18 15
	Bakla No. 1	20 0	20 7
October	2,200 Lal Tana	17 0	17 3
	2,400 Tana	19 4	19 11
	Varna No. 3	14 6	Nil.
	English Tana	16 0	16 8
November	Varna No. 1	17 0	17 6
	Varna Extra Superior	18 0	18 4
December	Lal Tana 2,200	Nil	19 3
	2,400 Tana	Nil	22 3
	English Tana	Nil	17 15
1929.			
January	Lal Tana 2,200	Nil	19 3
	2,400 Tana	Nil	19 11
	English Tana	Nil	19 3
February	Varna Extra Superior	19 0	19 8
March	Varna Extra Superior	19 0	19 8
	Bakla Tana	20 4	20 8
	Bakla No. 1	18 8	18 12
	English Tana	Nil	17 7
	Lal Tana 2,200	Nil	17 7
April	Varna Extra Superior	19 0	Nil.
	English Tana	18 0	Nil.
	Lal Tana 2,200	Nil	17 4
May	Lal Tana 2,200	Nil	16 11
	English Tana	Nil	16 4
June	English Tana	14 0	14 3
	Lal Tana 2,200	14 10	14 0
July	1,800 Tana	14 0	13 12
	Varna No. 1	14 0	Nil.
	Lal Tana 2,200	Nil	14 0
August	Varna No. 2	13 8	Nil.
	Bholahat Tana	14 12	Nil.
September	Aul Varna	14 0	Nil.
	English Tana	13 7	Nil.
October	Lal Tana 2,200	13 11	Nil.

Time.	Specification of yarn.	Price at which sold at home.	Price at which sold abroad.
		Rs. A.	Rs. A.
1929—contd.			
November	1,800 Tana	14 0	Nil.
	Aul Varna	14 12	Nil.
	2,400 Tana	17 8	Nil.
December	2,400 Tana	17 8	Nil.
	Lal Tana, 2,200	14 4	Nil.
	2,200 Tana	16 0	Nil.
	Bholahat Tana	18 5	Nil.
	Aul Varna	14 12	Nil.
1930.			
January	Lal Tana 2,200	Nil	15 7
	2,000 Tana	16 8	Nil.
	1,800 Tana	16 3	Nil.
	Marka Varna	16 8	Nil.
	English Tana	14 0	Nil.
	Aul Varna	17 4	Nil.
February	Varna No. 1	16 0	Nil.
	1,800 Tana	16 0	Nil.
	Bholahat Tana	17 0	Nil.
March	English Tana	16 0	16 3
April	Lal Tana 2,200	14 0	Nil.
	1,800 Tana	13 0	Nil.
	Varna No. 1	15 0	Nil.
	English Tana	Nil	14 11
May	Marka Varna	15 4	Nil.
	2,400 Tana	18 0	Nil.
	Aul Varna	14 4	Nil.
	English Tana	Nil	14 8
	Lal Tana 2,200	Nil	15 0
June	Lal Tana 2,200	Nil	14 13
	English Tana	Nil	14 8
	Jalalpuri Tana	14 8	14 8
July	English Tana	12 0	12 7
	Lal Tana 2,200	13 0	12 11
August	English Tana	Nil	12 4
	Lal Tana 2,200	Nil	11 4
September	Varna No. 1	13 8	Nil.
	Lal Tana 2,200	Nil	11 11
	English Tana	Nil	11 3
	Varna No. 2	12 5	Nil.
October	Bholahat Tana	12 4	Nil.
	2,400 Tana	15 0	Nil.
	Aul Varna	13 4	Nil.
November	Nil.		
December	Aul Varna	13 8	Nil.
	Bholahat Tana	14 8	Nil.
	2,400 Tana	16 0	Nil.
1931.			
January	Lal Tana 2,200	Nil	9 4
	English Tana	Nil	8 12
	Bholahat Tana	13 4	Nil.
	2,400 Tana	11 0	Nil.

Time.	Specification of yarn.	Price at which sold at home.	Price at which sold abroad.
		Rs. A.	Rs. A.
1931—contd.			
February	2,400 Tana special	11 11	<i>Nil.</i>
	Marka Varna	10 12	<i>Nil.</i>
March	Aul Varna	10 12	<i>Nil.</i>
	Bholahat Tana	13 8	<i>Nil.</i>
	Jalalpuri Tana	10 12	<i>Nil.</i>
April	English Tana	<i>Nil.</i>	9 12
	Lal Tana 2,200	<i>Nil.</i>	10 0
	Aul Varna	11 0	<i>Nil.</i>
May	<i>Nil.</i>		
June	Aul Varna	10 4	<i>Nil.</i>
	2,000 Tana	11 12	<i>Nil.</i>
July	1,800 Tana	11 8	<i>Nil.</i>
	Varna No. 1	11 8	<i>Nil.</i>
August	Aul Varna	9 10	<i>Nil.</i>
October	Varna No. 1	13 0	<i>Nil.</i>
November	Varna No. 1	<i>Nil.</i>	13 0
	2,400 Tana	<i>Nil.</i>	14 0
December	Bholahat Tana	16 0	<i>Nil.</i>
	2,400 Tana	15 12	16 0
1932.			
January	Varna No. 1	14 4	<i>Nil.</i>
	2,400 Tana	15 8	<i>Nil.</i>
	Bholahat Tana	13 8	<i>Nil.</i>
February	2,400 Tana	15 7	<i>Nil.</i>
March	Bholahat Tana	14 0	<i>Nil.</i>
	Varna No. 1	15 0	<i>Nil.</i>
	Aul Varna	15 8	<i>Nil.</i>
July	2,400 Tana	14 0	<i>Nil.</i>
	Aul Varna	13 8	<i>Nil.</i>
September	Tana A	12 8	<i>Nil.</i>
	Bholahat Tana	12 0	<i>Nil.</i>
December	Varna	9 8	<i>Nil.</i>
	Tana	11 0	<i>Nil.</i>
	Bakla Varna	10 0	<i>Nil.</i>
	Bholahat Tana	12 0	<i>Nil.</i>

42. There is practically no organised attempt of grading the yarns. There are certain well-known grades of yarns which have local names and which have been determined by the choice of the weavers necessitated by the fabric to be produced. Anything like measurement in deniers is not followed. The merchants never insist on standards being maintained. For the purpose of handloom weaving wide latitude as regards the fineness of the thread is allowed, the weavers can work with threads which cannot stand in weaving mills. Though it is desirable that yarns should be graded it is not however the principal drawback of the industry.

43. As I have indicated in reply to question 2 the reelers and rearers have the faintest idea of what is the price ruling in the outside market,

44. Does not concern this Union,

45. I have no complete idea. Though the yarn is produced in charka yet on account of the skill and traditional training of the reelers the bulk of the yarn conforms to certain standards of uniformity. Yarns produced here are mostly of 20/22 and 16/18 deniers. Chinese and Japanese silk of deniers 20/22, 24/26, 28/32 and 32/36 compete with these yarns. Yarns of these deniers are required by most of the handloom weavers.

46. I have no information.

47. Foreign yarns come to the market ready for the loom having been re-reeled and twisted and being of a uniform standard, whereas Bengal silk is not uniform, untwisted and requires re-reeling. In re-reeling there is some loss of the yarn. This year a charge of annas eight for one seer (2 lbs.) of yarn has to be paid for re-reeling by a weaver and there is a loss of 5 tolas (1/16th of a seer) in the maximum of yarn in the process. Twisting of one seer of yarn costs about three annas in this district. But generally re-reeling is done by females of the weavers for which nothing has to be paid. Thus the foreign yarn has an advantage of annas eight per lb. in the price on account of its technical perfection. But in quality and lustre foreign silk cannot compete with Bengal silk. People are willing to pay higher price (within reasonable limits) for the fabrics of Bengal silk as compared with foreign silk. It is for this reason that inspite of great handicaps Bengal silk has been able to survive so long. But the present fall in the price of the foreign silk is so unprecedented that notwithstanding the natural inclination of the people for Bengal silk they are going over to foreign silk on account of its cheapness. Disease is also another factor which has diminished the production of cocoons and consequently has raised the cost of production. If the rearers get good prices they will take more care of their worms and adopt scientific methods which are being preached by the Sericulture Department. Another factor was the rise on the prices of agricultural produces especially mangoes in this district.

48-49. I am not in position to answer.

50. None so far as I know.

51. (1) Spread of disease.

(2) Out of date methods of reeling, generally lack of adopting modern methods.

(3) General impoverishment of the rearers on account of the monopoly of the merchants.

(4) World competition.

52. Nothing particular to this district.

53. All the causes which have contributed to the decline of the industry are of a temporary character. Provided attempts are made to remove them they can be eradicated. It will largely depend on Government to chalk out a bold policy if sufficient protection is given to the indigenous industry to recuperate.

54. The causes of the decline of the export trade may be enumerated as follows:—

- (i) Technical defects: no attempt has been made to keep pace with modern improvements which have been adopted by the competitors of India like Japan and China.
- (ii) Outbreak of disease especially pebrine in an acute form. Prof. Maxwell-Lefray thinks that prior to 1895 this disease was little known in Bengal. The scientific methods to combat this disease were not adopted by the people for a long time; even now they are neglectful.
- (iii) Monopolistic nature of the few European firms in whose hands the trade was concentrated. They used to give low prices to the rearers.

- (iv) Great rise on the price of some agricultural commodities which took the place of mulberry in many districts India would consider herself fortunate if she can supply her domestic needs without thinking at present of capturing her old position.

55. I do not think so.

56. (a) There are some castes whose traditional occupation has been silk rearing. They are now gradually swelling the ranks of the producers of other agricultural commodities. There are many districts where countless families used to be engaged on silk weaving. Many have lost their old trade. Being not fitted by the tradition of caste to other occupations their condition is too miserable to describe. The statistics of the foreign trade of India would show that in 1921-22 India imported raw silk and silk goods worth about 4 crores of rupees which even in the lean year of 1930-31 stood at nearly 3 crores of rupees. Silk is essential to the amenities of life and as such the industry has held an important position from time immemorial. It is not a new industry but a well-tried one which at one time was very prosperous. The country is agricultural and as such has natural advantages for it. Females and children and even adults who do not know what to do with their time can profitably employ themselves in it.

(b & c) Without protection the industry is doomed to die a slow death. The industry has a long lee way to make. When modern technical methods had not been adopted India could more than hold her own in the world due to the traditional skill of her craftsmen. But after the Industrial Revolution and the spread of education among the masses of other countries India remained practically what she was but other countries made great advance. Thus India was content with the obsolete methods while other countries adopted scientific methods. There are certain inherent advantages of the Sericulture Industry, which have enabled India to fight so long. It is time to afford some protection and give her breathing time to put her affairs in order. Even the crude methods now followed in reeling silk have been successful in supplying yarn to her handloom industry; I believe by reforming these methods (as one attempt is now being made here) she will be able to face foreign competition in the field of handloom industry. But we expect that Indian capitalists would take up the matter and introduce machinery and production on large scale. Eventually the industry would be able to face world competition without protection. At least it is an experiment worth making for a few years to save an old industry.

57. The present difference in price between foreign silk and Malda silk which are used for the same purpose is about Rs. 2 per seer. This hardly leaves any profit to the producers. Generally the producers would be content if the price of green cocoon is Rs. 30 a maund, i.e., to say if the price of the yarn is Rs. 15 per seer. I should think a tariff of at least 75 per cent. *ad valorem* in addition to the present duty should be imposed. For the present this protection should be given for a period of ten years which should enable the industry to rehabilitate itself and adopt improvements. There should be enquiry again, and if no progress has been made the tariff should be withdrawn.

58. The tariff would certainly give a stimulus to the silk textile industry as attempts will have to be made for replacing a part of the foreign silk fabrics ruled out by the tariff. I expect weaving mills will be started in India. The handloom weavers may be affected to some extent by higher price, but silk is a commodity generally used by the rich and its demand is not likely to fall very much. Moreover on account of the very low price of the silk yarn and consequently of silk sarees fancy cotton sarees are hardly in demand because the difference in price of a silk saree and a cotton saree is not too much. The result is that many handloom weavers of cotton goods have been thrown out of employment. The loss of occupation to the silk rearers, if the industry is not protected, should be considered also as a compensating factor.

59. No information.

60. Provided attempts are made to teach scientific methods of sericulture it is hoped that production will increase and consequently cost of production will diminish. I see no other way of reducing cost.

N.B.—If the Tariff Board finds a case for protection it will kindly recommend that a part of the proceeds of the tariff should be set apart for teaching scientific sericulture and up-to-date methods of reeling. The Sericulture Department has been threatened with retrenchment. Its present activities will have to be increased to a large extent if the problems facing the industry are to be solved.

(3) *Letter dated the 1st March, 1933, from the Chairman of the Bengal Co-operative Silk Union, Malda.*

I beg to invite references to my letter No. 720, dated the 24th December, 1932, addressed to the Registrar of Co-operative Societies, Bengal (copy handed over to you on the 22nd February, 1933, at the time of my examination at Malda), and No. 909, dated the 3rd February, 1933, addressed to you direct and to point out that differences in figures in some of the items stated in the correspondence mentioned above may be noticed which require explanation for Board's satisfaction:—

(1) In letter No. 723, dated the 24th December, 1932, following figures have been shown:—

- (a) Number of rearers 53,511,
- (b) Number of reelers 4,088,
- (c) Number of weavers 595,

whereas in letter No. 909, dated the 3rd February, 1933, it has been shown to be:—

- (a) Number of rearers 160,000,
- (b) Number of reelers 5,000,
- (c) Number of weavers 2,000.

Explanation.—Item (a).—53,511 represents the number of rearing families whereas 160,000 is approximate number of men taken as 3 members of the family on an average who actually take part in rearing.

Item (b).—4,088 represents number of reelers and 5,000 includes assistants who supply fuel and water to the reelers.

Item (c).—595 represents actual number of silk weaver and 2,000 includes those who are engaged in weaving mixed fabrics and also who assist in weaving.

In Memo. No. 993, dated the 12th February, 1933, addressed to the Registrar, Co-operative Societies, Bengal, copy handed over to you on the 22nd February, 1933, 125 pure silk weavers have been shown which represent *Garad* (fine) silk weaver excluding Matka, spun silk and mixed fabric weavers.

All the figures relate to Malda district only.

I beg also to refer to my oral examination when the economic aspect of mulberry cultivation *versus* mango and other agricultural commodities was discussed. One of the members of the Board was pleased to ask me to give him statistics to show the economic aspect of mango planting. I have obtained reliable data and prepared statements, which unfortunately were not handed over to you at Malda though they were ready. I am sending them herewith.

I remember to have had a discussion with the Hon'ble Members about the present production of cocoons from Bengal races like Nistari and Chhotopoloo and showed them from the figures obtained from the villages by me by a careful inquiry. There was one aspect of the question to which the Tariff Board seems to have devoted its attention seriously, i.e., whether

cocoon production is capable of extension under the existing circumstances inspite of the diseases which loom large in an inquiry of this sort. My contention was that so far as Nistari worms were concerned the question of disease need not be taken into consideration very much as Nistari race had been made disease-free. As regards Chhotopoloo the question of disease is still important affecting the crops. But in both the cases I showed by statistics that the results depended on the rearers themselves rather on any intrinsic defects in the worms; and given sufficient inducement to the rearers in the shape of an assured remunerative price the production would increase very much resulting ultimately in lowering the price of cocoons. This was illustrated by some statistics showing how different people in the same villages obtained different results (some very good ones) from the seed obtained from the same source, both in the case of Nistari and Chhotopoloo worms. As my statements were not recorded I fear they may escape the memory of the members. I, therefore, enclose herewith two statements embodying the results of my inquiry. I have got several such statements showing the result of outturn of cocoons from different seeds. In this connection I would draw the attention of the Board to the report on the diseases of silk-worms in India prepared in 1922 by Dr. A. P. Jameson, D.Sc., who was deputed by Government of India to hold an inquiry. Pages 26, 92 *et seq* and 99-100 give the result and summary of his investigation which refute in some respects the sweeping generalisation of Prof. Maxwell-Lefry in an earlier report (Vol. I, page 27, paragraph 55) that no improvement in the situation is to be expected under the existing order of things. Dr. Jameson as well as we have found that the question of disease is not so vital as that of efficient rearing which again depends on a remunerative return from the crops.

For Board's correct information I beg also to state the following figures which could not be stated from memory at the time of *viva voce* examination:—

Number of preferential shareholders 43.

Number of ordinary shareholders 34.

Share capital Rs. 21,608 of which Rs. 5,550 is ordinary and Rs. 16,058 preferential.

Government Loan at Rs. 6 per cent. Rs. 40,000.

Loan from other Banks at Rs. 8 per cent. Rs. 15,000.

Enclosures.

Comparative Statement showing the average price of staple food crop (rice), mango, cocoons, seed-cocoons, and khamru silk during the period 1923-24 to 1932-33.

Year.	Rice per maund.	Cocoons per maund.	Seed-cocoons per maund.	Khamru Silk per seer.
	Rs. A. P.	Rs. A.	Rs.	Rs.
1923-24	4 11 0 in 1923	60 0	100	30
1924-25	5 8 0 in 1924	65 0	100	32
1925-26	6 6 5 in 1925	50 0	80	25
1926-27	6 10 8 in 1926	45 0	80	23
1927-28	6 10 8 in 1927	45 0	70	23
1928-29	6 8 0 in 1928	50 0	70	24
1929-30	5 2 7 in 1929	30 0	50	14
1930-31	4 8 7 in 1930	17 8	30	9
1931-32	3 4 6 in 1931	27 8	40	10
	3 0 0 in 1932			

Statement showing the gross return and the profit from one bigha of mango orchards.

Year.	Gross return.		Nett profit.	
	Rs. A.		Rs. A.	
1927-28	33	8	27	8
1928-29	0	2	6	0 (loss.)
1929-30	9	6	3	4
1930-31	1	0	5	0 (loss.)
1931-32	11	0	5	0

N.B.—These figures have been obtained from the Estate papers of Rai Sahib Jadunandan Chaudhuri. During the period taken the sale proceeds of the same five gardens and their annual expenses including rent have been taken into account and the figure for one bigha (.33 acre) has been based on these data.

Statement showing the outturn obtained by the rearers in Chaitra Bund (March-April, 1932-33) Nistari crop from seeds obtained from different sources.

Sl. No.	Name of rearer.	Sources of supply of seed.	Quantity of seed reared.	Outturn obtained.	Outturn in times.
	<i>Dharampur rearing village (Malda).</i>		Sr. ch.	Md. sr. ch.	
1	Iswar Chandra Das .	Kumarpore Nursery	1 0	1 30 0	70
	Do. .	Village seed .	1 0	1 36 0	76
2	Sarat Chandra Sarkar.	Do. .	1 8	1 6 0	30.7
3	Rajanikanta Mandal .	Do. .	0 12	..	for want of leaves.
4	Jogendra Nath Das .	Do. .	1 0	1 10 0	50
	Do. .	Kumarpore Nursery	1 0	2 0 0	80
5	Khargeswar Mandal .	Do. .	1 8	1 10 0	33.3
6	Dullava Ch. Das .	Do. .	0 12	1 10 0	66.7
7	Dandadhar Das .	Do. .	2 8	3 0 0	48
8	Bhabataran Das .	Do. .	1 10	2 26 0	84.8
9	Nibaran Ch. Das .	Do. .	1 10	2 3 0	66.4
10	Chabilal Das .	Do. .	1 10	2 1 0	64.8
11	Rajanikanta Das .	Village seed .	2 0	1 0 0	20
12	Pratap Ch. Das .	Kumarpore Nursery	1 14	3 15 0	72
	Do. .	Village seed .	2 0	..	..
13	Brindaban Ch. Das .	Do. .	2 0	3 20 0	70
	Do. .	Kumarpore Nursery	1 0	2 0 0	80
14	Kirti Bhusan Das .	Do. .	1 8	1 20 0	40
	Do. .	Village seed .	2 0	..	..
15	Bhakti Bhusan Das .	Kumarpore Nursery	1 8	1 30 0	46.7
	Do. .	Village seed .	1 8	..	..
16	Girish Ch. Das .	Kumarpore Nursery	1 9	1 35 0	48
	Do. .	Village seed .	0 13	..	..
17	Kashinath Das .	Kumarpore Nursery	1 4	2 0 0	64
	Do. .	Village seed .	0 13	..	..
18	Madhuri Lal Mandal .	Kumarpore Nursery	1 8	2 4 0	56
	Do. .	Village seed .	1 8	2 10 0	60
19	Kailash Ch. Mandal .	Kumarpore Nursery	1 4	2 0 0	64
	Do. .	Village seed .	0 5	..	..
20	Mahendra Nath Poddar.	Do. .	2 8	3 30 0	60
	Do. .	Berhampore Nursery	0 8	1 5 0	90
21	Prahlad Chandra Das	Kumarpore Nursery	1 8	2 0 0	53.3
22	Thakurdas Pandit .	Village seed .	2 0	0 25 0	12.5
23	Sajani Kanta Mandal .	Do. .	1 8	..	..
24	Nimai Chand Roy .	Do. .	4 0	6 0 0	60
	Do. .	Kumarpore Nursery	2 0	3 10 0	65

Statement showing the outturn obtained by the rearers in Chaitra Bund
(March-April, 1932-33) Nistari crop from seeds obtained from different
sources—contd.

S. No.	Name of rearers.	Sources of supply of seed.	Quantity of seed reared.	Outturn obtained.	Outturn in times.
<i>Telipara rearing village (Malda).</i>					
			Sr. ch.	Md. sr. ch.	
1	Prohlad Ch. Mandal .	Village seed . .	6 0	5 30 0	33.3
2	Doman Chowdhury .	Do. . .	1 0	..	..
3	Harish Chandra Das .	Amriti Nursery .	1 8	1 35 0	50
4	Khargeswar Das .	Do. . .	1 8	..	for want of leaves.
5	Gour Gopal Das .	Do. . .	3 12	6 15 0	68
6	Rajendra Nath Kabi-raj.	Village seed . .	1 0	0 32 8	32.5
7	Jogendra N. Chowdhury.	Kumarpore Nursery	0 12	0 32 8	43.3
8	Upendra Nath Das .	Do. . .	2 0	2 15 0	47.5
<i>Bahadurpur rearing village (Malda).</i>					
1	Abdul Sheikh . . .	Village seed . .	0 12	0 15 0	20
2	Fanki Sheikh . . .	Do. . .	1 0	0 20 0	20
3	Md. Jan . . .	Do. . .	0 12	0 15 0	20
4	Sabdul Sheikh . . .	Do. . .	0 8	0 20 0	40
5	Nuru Khalifa . . .	Do. . .	0 8	0 15 0	30
6	Manik Sheikh . . .	Do. . .	1 0	0 20 0	20
7	Manik Molla . . .	Do. . .	2 0	0 25 0	12.5
8	Ismail Shiekh . . .	Do. . .	0 8	..	..
<i>Kashimpur rearing village (Malda).</i>					
1	Rajendra Narain Das	Berhampur Nursery	8 0	10 0 0	50
2	Baishnab Ch. Das .	Village seed . .	0 8	0 20 0	40
3	Chandra Shekhar Das .	Do. . .	0 8	0 35 0	70
4	Kamini Kanta Mandal	Do. . .	2 8	2 0 0	32
5	Hareshwar Mandal .	Do. . .	1 8	..	..
6	Joydeb Mandal . . .	Do. . .	2 0	1 20 0	30
7	Bhabataran Mandal .	Do. . .	1 0	..	..
8	Surendra Nath Das .	Do. . .	1 0	..	..
9	Bhushan Mandal . . .	Do. . .	1 0	0 12 0	12
10	Karunamoy Mandal .	Do. . .	2 0	..	..
11	Dayadra Nath Das .	Do. . .	1 0	0 10 0	10
12	Surendra Nath Das .	Do. . .	1 0	0 20 0	20
13	Anadi Nath Mandal .	Do. . .	1 0	0 22 0	22
14	Kalachand Mandal . .	Do. . .	1 0	..	..

Statement showing the outturn obtained by the rearers in Chaitra Bund
(March-April, 1932-33) Nistari crop from seeds obtained from different
sources—contd.

S. No.	Name of rearers.	Sources of supply of seed.	Quantity of seed reared.	Outturn obtained.	Outturn in times.
	<i>Jhowbona rearing village (Malda).</i>		Sr. ch.	Md. sr. ch.	
1	Parameswar Das . . .	Village seed . . .	2 8	..	..
2	Haladhar Das . . .	Do.	1 12	1 20 0	34.2
3	Basanta Kumar Das . . .	Do.	1 0	0 30 0	30
4	Nimai Ch. Das . . .	Do.	1 4	1 20 0	48
5	Hrishikesh Barman . . .	Amriti Nursery . . .	2 4	4 5 0	73.3
6	Luttan Mandal . . .	Village seed . . .	1 8	..	..
7	Natabar Das . . .	Do.	1 8	2 20 0	66.6
8	Lolit Madhab Das . . .	Kumarpore Nursery . . .	1 12	3 0 0	68.5
9	Rash Ballava Das . . .	Village seed . . .	1 0	1 0 0	40
10	Bhajahari Das . . .	Do.	2 0	1 20 0	30
11	Mahendra Nath Das . . .	Do.	1 4	2 0 0	64
12	Nabadwip Ch. Mandal . . .	Do.	1 0	1 20 0	60
13	Surendra Nath Das . . .	Do.	2 0	0 35 0	17.5
14	Anadi Nath Roy . . .	Kumarpore Nursery . . .	1 8	2 0 0	53.3
15	Mokkhada Das . . .	Village seed . . .	2 4	0 6 12	3
16	Ramesh Chandra Das . . .	Kumarpore Nursery . . .	1 8	2 30 0	73.3
17	Nani Gopal Das . . .	Village seed . . .	1 4	1 20 0	48
18	Krishna Lal Das . . .	Do.	1 8	0 10 0	6.6
19	Sashi Bhushan Poddar . . .	Do.	3 0	3 0 0	40
20	Madhushudan Poddar . . .	Piasbari Nursery . . .	1 4	2 0 0	64
21	Gobinda Ch. Das . . .	Village seed . . .	17 0	6 0 0	13.4
22	Luttan Chandra Das . . .	Do.	1 8	0 26 0	17.3
23	Narahari Das . . .	Do.	1 8	..	..
24	Nani Gopal Das . . .	Do.	1 8	3 0 0	80
25	Mahendra Nath Das . . .	Do.	2 4	2 0 0	35.5
26	Upendra Nath Das . . .	Do.	2 4	3 0 0	53.3
27	Baksu Hazi . . .	Piasbari Nursery . . .	2 12	4 29 0	68
28	Lalu Sheikh . . .	Do.	1 0	1 30 0	70
29	Ser Mahammad Mian . . .	Do.	2 0	4 0 0	80
30	Dina Mahalat . . .	Do.	1 0	..	for want of leaves.
31	Hakim Mahalat . . .	Village seed . . .	2 0	..	..
32	Basat Mahalat . . .	Piasbari Nursery . . .	2 0	3 20 0	70
33	Jamir Shiekh . . .	Do.	1 8	3 0 0	60
34	Mannu Shiekh . . .	Village seed . . .	1 0	..	..
35	Tufani Shiekh . . .	Do.	1 0	..	..
36	Manik Shiekh . . .	Do.	2 0	..	..
37	Kukri Mandal . . .	Do.	2 0	1 0 0	20
38	Mohor Mandal . . .	Do.	1 8	..	..
39	Ishub Shiekh . . .	Do.	1 8	..	..
40	Kutub Sk. . . .	Do.	0 8	..	..
41	Arab Shiekh . . .	Do.	2 0	..	..
42	Abdul Shiekh . . .	Do.	1 0	1 20 0	60
43	Mahammad Sk. . . .	Do.	1 0	1 30 0	70
44	Abdul Shiekh . . .	Do.	1 8	1 0 0	26.7
45	Sadik Molla . . .	Do.	1 8	..	..
46	Sambhu Sk. . . .	Do.	1 8	0 30 0	20

Statement showing the outturn obtained by the rearers in Chaitra Bund (March-April, 1932-33) Nistari crop from seeds obtained from different sources—concl'd.

S. No.	Name of rearers.	Sources of supply of seed.	Quantity of seed reared.	Outturn obtained.	Outturn in times.
			Sr. ch.	Md. sr. ch.	
	<i>Gopinathpur rearing village (Malda).</i>				
1	Narendra Nath Roy .	Amriti Nursery .	1 0	1 37 8	77.5
	Do. .	Berhampur Nursery .	1 0	1 26 0	66
2	Dayadra Nath Das .	Amriti Nursery .	1 0	1 30 0	70
3	Uday Sashi Dasya .	Village seed .	3 0	0 28 0	9.2
4	Jogendra Pramanik .	Do. .	1 8	0 25 0	16.6
	Do. .	Do. .	1 8	..	..
5	Khargeswar Pramanik .	Kalitha Nursery .	1 8	1 0 0	26.6
6	Hareswar Das .	Village seed .	3 0	..	..
	Do. .	Kalitha Nursery .	3 0	3 0 0	40
7	Jogendra Nath Das .	Do. .	1 0	1 5 0	45
8	Prasanna Kumar Das .	Village seed .	1 0	..	..
9	Brindaban Das .	Do. .	1 8	..	..
10	Brindaban Mandal .	Do. .	1 8	0 20 0	13.3
11	Dash Kari Das .	Do. .	1 0	1 5 0	45
12	Gurucharan Mandal .	Do. .	1 8	..	..
13	Dhankrishna Tikadar .	Do. .	1 4	1 0 0	32
14	Dhankrishna Dewan .	Kalitha Nursery .	1 4	2 0 0	64
15	Monomohon Mandal .	Village seed .	1 0	1 0 0	40
	Do. .	Do. .	2 8	2 0 0	32
16	Rajendra Mandal .	Do. .	1 0	..	..
17	Madhuri Mohon Mallik .	Kalitha Nursery .	3 0	3 5 0	41.7
	Do. .	Berhampur Nursery .	1 0	1 26 0	66
18	Anantatal Poddar .	Amriti Nursery .	1 0	1 0 0	40
19	Baydyanath Das .	Do. .	0 8	0 20 0	40
20	Sarbeswar Das .	Do. .	1 0	2 20 0	100
21	Bagghunandan Barui .	Do. .	3 0	4 0 0	53.3
22	Narahari Mandal .	Berhampur Nursery .	1 0	1 7 0	47
23	Jatil Ch. Das .	Village seed .	0 8	..	..
24	Dhaneswar Poddar .	Do. .	1 4	0 30 0	24
25	Bhaktibhushan Das .	Amriti Nursery .	0 8	0 30 0	60
	Do. .	Village seed .	1 0	0 11 0	11
26	Dandadhar Das .	Amriti Nursery .	1 8	3 0 0	80
27	Himalay Das .	Do. .	1 8	3 0 0	80
28	Khargeswar Das .	Kumarpur Nursery .	1 8	1 20 0	40
29	Khudu Malo .	Do. .	0 12	1 0 0	53.3
30	Chandra Mohon Maiti .	Village seed .	1 4	1 0 0	32
31	Gopal Mandal .	Kumarpur Nursery .	1 0	2 0 0	80
32	Bhushan Dalal .	Village seed .	1 0	0 35 0	35
33	Khetra Nath Roy .	Do. .	1 4	1 0 0	32
34	Brindaban Nagar .	Do. .	1 0	1 0 0	40
35	Jitu Pramanik .	Berhampore Nursery .	1 0	1 30 0	70
36	Bhushan Dalal .	Amriti Nursery .	1 0	0 35 0	35
37	Banamali Das .	Do. .	1 0	1 15 0	55
38	Panchu Mandal .	Do. .	1 0	1 10 0	50
39	Rameswar Mandal .	Village seed .	1 0	1 13 0	53
40	Bidhur Matu .	Amriti Nursery .	1 0	1 20 8	60.5
41	Rameswar Mandal .	Berhampur Nursery .	1 0	1 7 8	47.5

N.B.—The figures relate to March-April crop of 1932-33 in worst climatic condition on account of abnormal drought which prevailed during the time of rearing. Normal output with the rearers is 60 seers for one seer of seed; normal output in the nursery is 80 seers for one seer of seed.

Outturns obtained by the rearers in the Agrahayani (November-December, 1932) Chhotopoloo crop from the seeds of Messrs. Haji Ishaque Mondal & Co.

No.	Name of rearers.	Address.	Quantity of seeds reared.	Quantity obtained.	Outturn in times.
			Sr. ch.	Md. sr. ch.	
1	Tejrat Biswas . .	Sujapur . .	1 8	2 32 0	74.7
2	Nasir Shaikh . .	Do. . .	0 8	0 38 0	76
3	Yusuff Mondal . .	Do. . .	1 4	3 13 0	104.4
4	Kusum Dalal . .	Do. . .	2 3	1 35 0	34.3
5	Abu Mondal . .	Do. . .	3 0	1 25 0	21.7
6	Lal Muhammad . .	Do. . .	1 4	3 4 0	99.2
7	Muhammad Munshi . .	Do. . .	1 1	1 25 0	61.2
8	Jadu Shaikh . .	Do. . .	0 15	0 25 0	26.7
9	Jahari Shaikh . .	Do. . .	0 12	1 25 0	86.7
10	Mutabal Shaikh . .	Do. . .	0 12	1 26 0	86.9
11	Yusuff Mohajan . .	Do. . .	1 5	1 30 0	53.3
12	Tayab Mondal . .	Do. . .	1 0	1 20 0	60
13	Siraj Mondal . .	Do. . .	0 13	1 15 0	67.7
14	Panchu Mohajan . .	Do. . .	0 11	0 16 0	23.3
15	Bishu Mohajan . .	Do. . .	1 0	1 15 0	55
16	Hossain Munshi . .	Do. . .	0 15	0 20 0	21.3

Outturns obtained by the rearers in the Agrahayani Chhotopoloo crop from the seeds of Indu Bhushan Mondal of Bakharpur, 1932.

1	Besharu Shaikh . .	Bakharpur . .	0 15	0 35 0	17.3
2	Samu Sardar . .	Gyasbari . .	1 12	1 0 0	22.9
3	Aziruddin . .	Do. . .	1 8	0 16 0	10.6
4	Hari Shaikh . .	Do. . .	2 0	0 20 0	10
5	Mamlat Shaikh . .	Chaspara . .	0 7	0 15 0	34.3

Outturns obtained by the rearers in the Agrahayani Chhotopoloo crop from the seeds of Ashutosh Mondal of Bakharpur, 1932.

1	Khetu Mohora . .	Bakharpur . .	0 9	0 39 0	69.3
2	Mohini Mondal . .	Madhugram . .	1 8	2 0 0	53.3
3	Ahamu Shaikh . .	Bakharpur . .	1 1	0 20 0	18.9
4	Moresh Mondal . .	Do. . .	1 12	2 5 0	48.7
5	Akalu Shaikh . .	Firanchak . .	2 1	1 0 0	20
6	Umrudi Shaikh . .	Do. . .	0 13	0 20 0	24.6
7	Lashman Shaikh . .	Do. . .	0 13	0 20 0	24.6
8	Refat Shaikh . .	Do. . .	0 13	0 20 0	24.6
9	Meher Khan . .	Bakharpur . .	0 13	0 20 0	24.6
10	Narijan Shaikh . .	Do. . .	0 13	0 10 0	12.3
11	Lalu Shaikh . .	Darakali . .	1 6	1 20 0	14.6

Outturns obtained by the rearers in the Agrahayani Chhotopoloo crop from the seeds of Mohiuddin Ahmed, 1932.

No.	Name of rearers.	Address.	Quantity of seeds reared.	Quantity obtained.	Outturn in times.
			Sr. ch.	Md. sr. ch.	
1	Akalu Shaikh .	Chaspara .	0 13	1 25 0	40
2	Dhuman Shaikh .	Do. .	0 9	1 5 0	40
3	Buddhu Gharami .	Gyasbari .	3 0	6 20 0	86.7
4	Karim Box .	Chaspara .	1 7	2 30 0	76.5
5	Miajan Mondal .	Do. .	1 8	3 15 0	92
6	Parijan (widow) .	Gyasbari .	0 12	1 25 0	86.7
7	Shesharu Momin .	Do. .	0 9	1 5 0	80
8	Alauddin Shaikh .	Do. .	2 4	4 20 0	80
9	Jainal Munshi .	Chaspara .	0 9	1 20 0	106.7
10	Sabari Khan .	Do. .	0 9	1 20 0	106.7
11	Keramat Shaikh .	Do. .	0 13	1 25 0	80
12	Jhabu Munshi .	Gangaprosad .	2 1	4 0 0	80
13	Moharjan .	Chaspara .	0 13	1 30 0	86.1
14	Mahalat Khan .	Do. .	0 13	1 32 0	88
15	Khushi Khan .	Chaspara .	0 13	1 20 0	73.8
16	Sahalat Khan .	Do. .	0 7	1 0 0	91.4
17	Somin Shaikh .	Do. .	0 5	0 17 0	54.4
18	Bakal Shaikh .	Do. .	1 0	2 0 0	80
19	Chumam Shaikh .	Do. .	1 0	2 0 0	80
20	Rahaman Shaikh .	Sujapur .	0 6	0 25 0	66.7
21	Akalu Shaikh .	Do. .	0 8	1 0 0	80
22	Nabi Haji .	Masimpur .	1 11	3 10 0	77
23	Mahalat Mohajan .	Chaspara .	2 2	4 10 0	80
24	Panchu Shaikh .	Do. .	1 0	2 0 0	80
25	Ajmat Shaikh .	Do. .	1 0	2 0 0	80
26	Nakul Biswas .	Do. .	1 0	2 0 0	80
27	Keramat Shaikh .	Do. .	0 8	0 10 0	20
28	Kabil Shaikh .	Do. .	0 12	1 20 0	80
29	Aghanu Molla .	Do. .	0 8	1 0 0	44
30	Ashardi Shaikh .	Do. .	0 8	1 0 0	80
31	Jhabu Shaikh .	Gyasbari .	0 13	1 25 0	80
32	Borak Shaikh .	Do. .	1 5	3 10 0	99
33	Munsad Shaikh .	Do. .	0 13	1 20 0	73.8
34	Bahary Shaikh .	Chaspara .	0 11	1 25 0	94.5
35	Munshi Shaikh .	Gyasbari .	1 0	2 0 0	80
36	Formal Ali .	Sujapur .	4 0	8 20 0	85
37	Pakhal Shaikh .	Chaspara .	0 11	1 0 0	58.2
38	Alam Shaikh .	Gyasbari .	0 10	1 0 0	64

Bengal Co-operative Silk Union, Limited, Malda.

(4) Letter No. 1103-03, dated the 22nd March, 1933.

I have the honour to send herewith one copy of the replies to the supplementary questionnaire of the Handloom Industry being directed by the Registrar of Co-operative Societies, Bengal.

REPLIES TO THE QUESTIONNAIRE FOR THE HANDLOOM INDUSTRY.

1. (i) There are about one hundred and twenty five pure silk weavers in the district of Malda.

(ii) Practically nil.

(iii) No information.

2. So far as the pure silk yarn is concerned the weavers who are better off get their supplies direct from the reelers at the market rate. The poorer weavers—and they are in majority get their supplies through the middlemen on credit and have got to pay interest for that sometimes at a very high rate so much so they often ruin their career. Instances are not rare when they have to satisfy their middlemen even after selling their immoveable properties.

Spun silk is also supplied to the weavers through middlemen.

Artificial silk is not used by the weavers in this district.

Calcutta, Benares, Surat and such other places supply gold thread to the weavers through the middlemen.

Price of silk yarn and spun silk do not remain steady and constant. It very often fluctuates according to their production and of their demand in the market. It is, however, a fact that the weaver has to pay a comparatively very high price as he is not in a position to avail of normal price of the yarn for want of Capital at his disposal.

3. (i) & (iv) Through other agencies.

(ii) & (iii) By themselves.

4. Warps and wefts are made—warps from good cocoons and with great care and attention and wefts from the ordinary—by the reelers according to the requirements of the weavers and vary to suit the convenience of the weavers.

5. Generally Sarees, Dhooties, Loongies, Handkerchiefs, Suitings and Shirtings, Gown pieces, etc., are prepared by the weavers under the Bengal Co-operative Silk Union, Limited, Malda.

These fabrics compare favourably in prices and good finish with those of imported goods.

6. (i) Red border saree, 5 yds. \times 45", 7 to 8 days.

(ii) Dhooties, 5 yds. \times 44", 5 days.

(iii) Loongies, 2½ yds. \times 45", 2 days.

(iv) Handkerchiefs (1 dozen), 22" \times 22", 6 days.

(v) Suiting, 10 yds. \times 36", 8 to 10 days.

(vi) Shirtings, 12 yds. \times 45", 13 to 14 days.

(vii) Gown pieces, 10 yds. \times 40", 10 to 11 days.

7. The weavers generally use silk yarn of 16/20 Denier in warp and 20/22 Denier in weft.

The quantity of silk yarn required for weaving each of the above cloths is as follows:—

(i) Red border saree, 5 yds. \times 45", 1 piece, 30 to 35 tolas.

(ii) Dhooti, 5 yds. \times 44", 1 piece, 25 to 30 tolas.

(iii) Handkerchiefs, 22" \times 22", 12 pieces, 25 to 28 tolas.

(iv) Suiting, 10 yds. \times 36", 1 piece, 60 to 75 tolas.

(v) Shirting, 12 yds. \times 45", 1 piece, 60 to 75 tolas.

(vi) Gown piece, 10 yds. \times 40", 1 piece, 55 to 60 tolas.

8. (i) Red border saree, 5 yds. \times 45", Rs. 8 to Rs. 14.

(ii) Dhooti, 5 yds. \times 44", Rs. 7-8 to Rs. 9.

(iii) Handkerchiefs, 22" \times 22", Rs. 6 to Rs. 9.

(iv) Suiting, 10 yds. \times 36", Rs. 15 to Rs. 16.

(v) Shirting, 12 yds. \times 45", Rs. 20 to Rs. 26.

(vi) Gown piece, 10 yds. \times 40", Rs. 15 to Rs. 17.

9. The value of the total annual production of all sorts of cloths in this district may approximately come to Rs. 40,000 to Rs. 45,000.

10. Spun silk is used for preparing the border of Matka and Tussore saree and suitings, shirtings and chadders.

11. *Vide* reply to question 2.

The amount and period vary according to the capacities of the weavers as determined by the merchants.

12. About 75 per cent. of the imported silk yarn are sold through retailers and brokers the remaining 25 per cent. are purchased by the weavers direct from the importers' agents.

13. As regards durability and lustre the Indian silk can defy competition.

With the advent of the Swadeshi Movement the people are giving preference to Indian Silk and consequently the demand for the same seems to be on the increase.

14. Different systems of advancing silk yarns to the weavers and taking back their cloths are in vogue here. In some cases the middlemen supply yarns to the weavers for weaving particular kind of cloths and take back the finished goods on payment of nominal wages.

In other cases the Mahajans advance silk yarns to the weavers for weaving cloths to their requirements. This advance of yarn is treated as credit sale and the value of the yarn so advanced is debited to his account according to the then market rate. When the fabric is produced and made over to the Mahajans he makes an advance payment almost equivalent to his remuneration for the piece.

The final adjustment of account is made only when the cloths are sold out.

The Mahajan keeps 6½ per cent. as his own commission from the sale proceeds. If any loss has to be incurred by the sale of the products it goes to the share of the weaver.

It is to be noted in this connection that the Mahajans get their supplies at the rate of 84 tolas per seer but the advance by them is made at the rate of 81 tolas per seer, the transaction yielding to them a profit of 3 tolas of yarn per seer apart from other profits accruing to them in the final adjustment of accounts.

15. The introduction of artificial silk has not affected the market worth the name of real silk.

16. The cost of manufacture of a single piece of red border saree of 5 yds. x 45" may be taken into consideration to make the subject clear which is as follows:—

	Rs. A. P.
(i) Raw material (30 tolas) at Rs. 10 . . .	3 12 0
(ii) (a) Twisting charge at Re. 1-8 per seer . . .	0 9 0
(b) Winding charges at Re. 1-4 per seer . . .	0 7 6
(iii) Dyeing charges at Re. 1-4 per seer . . .	0 2 0
(iv) Weaving charges (for an ordinary cloth of 1,800 sanas)	2 4 0
(v) Other charges—	
(a) Warping (on average)	0 12 0
(b) Bleaching at As. 2-6 per seer	0 1 0
(c) Re-reeling at Re. 1-4 per seer	0 7 6
(d) Bobbin Winding (on average)	0 1 0
	<hr/>
	8 8 0

The hired weavers are paid per piece and according to efficiency of work.

17. Co-operative Societies are rendering assistance in various ways:—

- (i) It makes best attempt to promote silk industry by the formation of Co-operative Societies of Mulberry cultivators, cocoons rearers, cocoons reelers and silk weavers to regulate the relations between

different classes of these societies which are its members, and to co-ordinate their activities.

- (ii) The affiliated societies are financed at a minimum rate of interest for cultivation of lands constructing rearing sheds, reeling factories, for purchasing tools, plants, implements, appliances, raw materials, etc.
- (iii) To sell and dispose of the products of the members in the most profitable manner or to arrange for the carriage or transportation to markets of such Products.
- (iv) To provide for a regular and efficient system of supervision of societies, to advise and assist such societies and to further their interest in every way.
- (v) To take up the improvement side of the industry by installing small machineries for producing better quality of yarn at the minimum expenses and labour, to supply the workers with Charkhas and other implements of scientific improved method on credit by easy instalment system.
- (vi) To employ Experts for imparting necessary trainings in technical matters and to hold demonstration from time to time for their practical training.
- (vii) To find out markets for the disposal of their produce and to make regular propaganda for creating taste for their manufactured articles amongst the people of different provinces.
- (viii) To foster the habit of thrift amongst its members by regulating their items of expenditure in living.

18. The manufactured articles are largely sold in Calcutta and other districts of Bengal, in Bombay and Madras, Assam, and some pieces in United Provinces and in other parts of India.

The weaver has to incur nothing excepting freight and packing charges in transporting his goods.

19. It is increasing.

20. The sources of supply of raw silk in the District of Malda are Reelers themselves, Marwari Merchants and the Bengal Co-operative Silk Union, Limited, Malda. Practically speaking the business is entirely in the hands of Marwari merchants who advance money to reelers to purchase cocoons at different seasons on condition that they would bring their yarns at the first instance to them who generally purchase the yarn at what they call market rate, the rate being fixed by them in a private gathering held for the purpose.

Only a small part of the total silk produced locally is consumed by the silk weavers of this district the great bulk of silk goes to Madras and about 400 maunds is consumed by the silk weavers of Bishnupur and Birsingha in Bankura—about 500 maunds at Boswa-Bishnupur and Panchgachia in Birbhum and about 450 maunds at Islampurchak and Mirzapur in Murshidabad district.

The yearly consumption of silk of the better qualities produced in Malda is estimated to be about 1,500 seers valued at about Rs. 35,000.

Sericultural Co-operative Society, Moledoddi, Mysore.

1. Sericultural Industry is in existence in our village, for over a century and a quarter. We are practising this industry as a subsidiary occupation. We do not know, who introduced this industry to our village. About 150 families are engaged in this industry in Moledoddi village. Even the female members of the ryots family participate in the industry. In Moledoddi village, about 125 to 130 acres are under mulberry cultivation. We do not reel cocoons.

2. This industry can be divided under three heads:—

- (1) Mulberry cultivation and silk-worm rearing.
- (2) Reeling.
- (3) Marketing of silk.

1. For mulberry cultivation and silk-worm rearing much capital is not required. The small amount that may be necessary is taken by the ryots either from the sowcars of the place or from the purchasers of reeling cocoons.

All the cocoons produced in our village are sold to reelers. Formerly, reelers used to pay advance to rearers and purchase cocoons. At present, they purchase the cocoons on credit. The cost of the cocoons are paid after the cocoons are reeled and the silk sold. There are also brokers who take all the cocoons produced in the village and sell them to owners of reeling establishment and thus get commission from both parties.

The owners of reeling establishment employ coolies and get the cocoons reeled under their personal supervision. This industry is generally undertaken by persons, who can invest money on the business. But those who are unable to do so, get the amount required from the owners of silk koties, as loan and commence the work. Some others take the amount necessary, as loan from the Sericultural Co-operative Societies. Generally, all the silk prepared are sold to silk koties. Formerly, the owners of silk koties used to pay advance to the owners of reeling establishment and get the silk reeled. But now, since there is a fall in the price of our silk, they pay the advance required, by depositing the silk. The owners of silk koties sell our silk to their clientele in Gadag, Canjeevaram and Kumbakonam and get commission from both parties.

3. (i) In the present organisation, the maximum quantity of cocoons which could be produced in our village is about 80,000 lbs. of cocoons.

(ii) About 6,000 lbs. of silk is prepared from the cocoons produced in our village.

Years.	Quantity of cocoons produced.
1927-28	87,500 lbs.
1931-32	75,000 lbs.

Since we have not maintained correct accounts, we have furnished approximate figures for two years only. Bad seeds, failure of rains, want of proper market for our cocoons, consequent on the fall in the price of silk. These account for the difference in the figures.

4. About 13 lbs. of Mysore cocoons are required to prepare one lb. of silk and 10 to 12 lbs. of cross-breed cocoons are necessary to prepare 1 lb. of silk.

We do not know the silk content of cocoons produced in other countries. We are not aware, that some filatures in India, were closed down for want of an adequate supply of cocoons. In our village and in the villages round about, the owners of reeling establishment has closed down their establishments for want of demand for their silk.

5. All the raiyats in our village rear Mysore worms. Recently, we have commenced to rear cross-breed worms, supplied by Government Farms.

After the emergence of moths is finished, the male and female moths are coupled and allowed for six hours, for fertilization. Then the male moths are separated from the female moths. The female moths are allowed to lay eggs which will be complete within 24 hours.

The eggs hatch in ten days. Before they hatch, the eggs are kept in a cool place and safeguarded against rats, lizards, etc., which eat them away. On the ninth day, the colour of the eggs is changed into grey. To facilitate uniform hatching, we brush the eggs with the help of a feather. After the eggs hatch, tender leaves are finally chopped and sprinkled on the tiny

worms. After sometime, with the help of a feather, all the worms are collected in one place and kept in a separate tray. The worms are fed once in two hours, so that the leaves do not dry up soon. Great care is taken, to rear the worms in this stage. After passing four days in this manner, the worms go to first moult and cease eating. Strong gusts of wind, should not be allowed to blow over the worms in moult and the worms in moult should not be disturbed in any way. The skin of the worms get a shining appearance before they go to moult. The worms come out of moult after 24 hours. When all or 75 per cent. of the worms come out of moult, feeding is given to them. As the worms develop, the quality of leaf is changed and feeding given to suit their age and development. The worms which have come out of moult, are given two feedings and then their bed is cleaned. Their space is also extended. During this period, the worms are fed once in three hours and their bed is cleaned daily in cool hours. After 4 or 5 days, they go to second moult, when going to moult, the worms lose their appetite and cease eating. As in the first moult, they remain in moult for 24 hours and come out of moult. The same precautions are taken as in the first moult. The worms pass five days after coming out of second moult and then go to third moult. When they come out of moult, the worms are given two or three feedings and their bed is cleaned. Enough space is also given to them. 5 days after, the worms go to fourth moult. After they come out of moult, they are fed on tender leaves for two or three days (if the worms are pure Mysore). By this time, the worms are appreciably grown and well developed and so they are fed on entire matured leaves. In this way, the Mysore worms eat leaves for 8 or 10 days and then become ripe. Cross-breed worms eat for five or six days only and become ripe. Then they cease eating leaves. They begin to spit out silk through an aperture in the mouth. Then, all the ripe worms are picked out, and left on chandrikes. The cocoons are harvested on 4th day.

6. (a) In our village, rearing houses are not separated from the houses we live in. We make use of a portion of our house for purposes of rearing.

The following rearing equipments are necessary for rearer owning one acre of mulberry garden:—

	Rs. a.
1. 2 stands	8 8
2. 20 bamboo trays	6 4
3. 8 kundas	0 6
4. 2 chopping knives	0 12
5. 1 chopping board—1 broom	0 8
6. 1 lamp	0 2
7. 6 baskets	0 8
8. 2 gunny bags	0 8
9. 4 chandrikes	4 0
10. 1 rat trap	0 4
Total	21 12

If more chandrikes are wanted, they are taken for hire from those who can spare them. The rearing equipments last as follows:—

- (i) Stands last for 10 years.
- (ii) Trays 2 years.
- (iii) Chopping knives 6 months.
- (iv) Chopping board 4 or 5 months.
- (v) Chandrikes 3 years.
- (vi) Baskets 2 months.
- (vii) Kundas 8 or 9 months.

The present rearing house can be improved in the following ways:—

- (1) To admit plenty of light and fresh air, sufficient number of windows can be provided to the rearing house.
- (2) The ordinary floor of the house can be converted to cement flooring to prevent dust raising from the ground.
- (3) To prevent the heat of the tiles from affecting the worms, the tiled roof may be covered with straw.

The present rearing equipments can be improved as follows:—

- (1) The interspaces in the stand can be increased to allow fresh air and light to pass freely.
- (2) The size of the bamboo trays can be reduced and made smaller, to facilitate convenient handling.
- (3) The chopping knives can be made smaller and thinner to facilitate chopping leaves for chawki worms.
- (4) The spirals in the chandrikes can be got closer, so that the worms can spin cocoons properly.

(b) Pure Mysore worms ripen within 30-35 days and 500 to 550 cocoons make one lb. Cross-breed cocoons became ripe with 25-28 days and 350-400 cocoons make one lb.

7. Foreign varieties of silk-worms are reared in Government Farms. We do not see any difference between our methods of rearing worms and the methods employed in other countries.

8. We rear worms of seed cocoons produced in our country. In the Mysore State there are two seed producing areas, viz., Bidadi and Kunigal. Since the soil is suitable and climatic conditions favourable in these places for rearing worms, to produce cocoons fit for seed, the above places have become famous as seed producing centres. There are two seed campaign offices opened in those areas by Government. The seed rearers here, own mulberry gardens of small extent, and devote great care and attention in rearing worms. Government have selected a few intelligent seed rearers in each area, and have them under their control. They are supplied disease-free layings for their rearings. Their rearings are inspected at each stage by the seed campaign officers who offer necessary instructions in rearing. When the crops are harvested, if the cocoons are fit for seed, the seed campaign officers certify to that effect. Otherwise, they are sold as reeling cocoons. In our Sericultural Co-operative Society we also examine the moths, seed cocoons and prepare disease free layings and distribute.

9. We rear multivoltine worms and raise 5 to 6 crops in a year. We can obtain 42,000 to 45,000 worms from one ounce of eggs. The requirement of eggs of our village for a year is 1,500 ounces.

10. Silk-worms are fed on mulberry leaves. Usually, the rearers own mulberry gardens and rear worms. Some rearers cultivate mulberry on leased lands. No rearer in our village, purchases leaves for conducting his rearings.

11. Initial cost for planting mulberry in an acre of irrigated land:—

	Rs.
1. Ploughing and levelling	35
2. For preparing pits	5
3. Cattle manure	10
4. Planting cuttings	6
5. Watering	15
6. Fencing	5
Total	76

(i) Recurring cost for the maintenance of one acre of irrigated mulberry garden:—

	Rs.
1. Land tax	4
2. Cattle manure—30 carts	40
3. Ploughing and weeding	20
4. Manuring	8
5. Watering	55
6. Pruning	4
7. Contingencies	5
Total	<u>136</u>

About 8,000-8,500 pits can be prepared in an acre of land. In the irrigated gardens of our village about 10,000 lbs. of leaves can be harvested for a year. The average life of a plant is from 15 to 20 years. About 800 to 900 lbs. of leaves are necessary to rear worms of one ounce of eggs. One lb. of leaf cost 2-61 pies.

(ii) Cost of maintaining one acre of garden in 1927-28:—

	Rs.
1. Land tax	2
2. Ploughing and weeding	20
3. Cattle manure—30 carts	30
4. Manuring	8
5. Watering	55
6. Contingencies	5
Total	<u>124</u>

Cost of maintaining one acre of irrigated garden in 1931-32:—

	Rs.
1. Land tax	4
2. Cattle manure—30 carts	40
3. Ploughing and weeding	20
4. Manuring	8
5. Watering	55
6. Pruning	4
7. Contingencies	5
Total	<u>136</u>

About 12,000 lbs. of leaves can be obtained in an acre of land.

(iii) There is no crop alternative to mulberry. But cost of growing ragi in an acre of land (Kushki) for one year:—

	Rs. A.
1. Land tax	1 12
2. Ploughing	7 8
3. Seed and manure	8 0
4. Kunte preparing	3 0
5. Weeding, plucking ragi plants	5 0
6. Mowing, etc.	6 0
7. Thrashing	4 0
Total	<u>35 4</u>

	Rs. A.
Receipts—	
1. Three candies at Rs. 10 per kandi	30 0
2. Straw	10 0
3. Inter crops	5 0
Total	45 0
Receipt	45 0
Expenditure	35 4
Profit	9 12

12. We have not adopted any new method for improving the quality and supply of mulberry leaves. In recent years, Government have demonstrated to us new methods of growing mulberry, with better yield and in quality much better, than the mulberry grown by us at present. By using Honge and Groundnut cakes and by using chemical fertilizers, the above results are obtained. Besides growing mulberry trees, the cost of cultivating mulberry can be reduced.

13. About thirty per cent. worms die from chawki to spinning stage for the following reasons:—

- (1) Some worms are lost owing to abnormal temperature.
- (2) Some worms become weak and irregular while going to moult, such worms are removed.
- (3) While transferring worms from one tray to another some worms are lost.
- (4) Some worms die from disease.
- (5) Some worms are eaten away by sparrows, rats, etc.

14. Silk-worms chiefly suffer from the following diseases:—

- (1) Pebrine, (2) Flacherie, (3) Grasserie.

(1) *Pebrine*:—

Occurrence:—(1) Through mother—bad seed. (2) Through contamination.

Prevention:—(1) By using disease-free layings, pebrine coming from mother moth can be prevented. (2) By disinfecting rearing house and rearing equipment contaminative pebrine can be eliminated.

(2) *Flacherie*:—

Occurrence:—Bad leaves—carelessness in chawki stage, abnormal temperature are the cause.

Prevention:—By using proper kind of leaves, by taking proper care and attention and by regulating temperature of the rearing house, the above disease can be prevented.

(3) *Grasserie*:—

Occurrence:—By feeding the worms on leaves having more of moisture content.

Prevention:—By avoiding use of leaves of this kind, the worms can be protected from this disease.

15. Climate is an important factor for the development of sericulture. It is essential to maintain proper temperature in the rearing house.

16. About 53 lbs. of cocoons can be produced from rearing one ounce of pure Mysore eggs. By rearing worms of one ounce of cross-breed layings about 70-75 lbs. of cocoons are produced.

17. We cannot furnish account required of our village, for the last five years. We give below accounts pertaining to us.

About 650 lbs. of cocoons can be produced in an acre of garden. Total works expenditure incurred on the production of cocoons in one acre of garden :—

Year.	Cost of seed cocoons.	Labour.	Cost of leaves.	Cost of article.	Miscellaneous.	Total.
1927-28 . .	16 12 0	25	124	16 11 11	20 8	185 0 9
1931-32 . .	16 12 10	25	136	16 11 11	3 0	197 8 9

Total works cost to rear worms of one ounce of disease free layings :—

Year.	Cost of seed cocoons.	Labour.	Cost of leaves.	Cost of article.	Miscellaneous.	Total.
1927-28 . .	1 6 4	2 8 0	10 5 4	1 6 3	0 3 4	15 13 3
1931-32 . .	1 6 4	2 8 0	11 5 4	1 6 3	0 4 0	16 13 11

Hire of 96 chandrikes at one anna per chandrike is included in the cost of articles.

18. All the cocoons produced in our village are used for reeling. They are not used for seed. The cost of reeling cocoons per lb. was from eight annas to nine annas in 1927-28. In 1931-32 the cost of reeling cocoons per lb. is from four annas to five annas.

19. Usually, the rearers who produce cocoons do not themselves reel them. Immediately, after the cocoons are harvested, the rearers sell them to reelers, irrespective of the rate.

The cost of reeling cocoons per lb. in—

1927-28 from As. 10 to As. 12.

1928-29 from As. 8 to As. 10.

1929-30 from As. 4-6 to As. 5.

1930-31 from As. 4-6 to As. 5.

1931-32 from As. 4-6 to As. 5.

28. In 1927-28 about 200 families were engaged in Sericultural Industry. At present, only 150 families are sericulturists.

30. (iii) (B) We are cultivating mulberry and rearing worms just as our forefathers were doing. Recently, Government by granting scholarships to students, train them in rearing technique and mulberry cultivation.

37. From silk is prepared silk cloth, lametta, lace, etc.

42. Our silk is not scientifically sorted and graded. The practice in vogue to distinguish silks prepared in different places is to judge them by their colour, cleanliness, uniformity, etc. Generally, silks go after the name of the place in which they are prepared. If the present method of reeling is to be improved a "conditioning house" has to be established in our country similar to those in other countries.

The main reason for the serious decline of our industry is that there

53. If considered the steady decline of our industry, there is no doubt that within three or four years, it will disappear from our country.

55. The present method of levying revenue duties on raw silk is to get income to Government and not at all to protect our industry. By levying a protective duty on foreign silk, our industry should be protected.

56. (a) All the natural advantages, viz., raw materials, cheap power, supply of labour, are found in abundance in our country for the development of sericultural industry.

(b) Our industry will not develop at all if protection is not afforded. In the interest of the industry therefore, it should be protected.

(c) If protection is given to our industry, it can ultimately be able to face world competition.

57. (a) The protection given, should be of such a nature that the selling rates of our silk and of foreign silk are made equal so that our silk fetches remunerative prices.

(b) If protective duty is levied on foreign silk, it gives a wide scope for the development of our industry.

(c) This protective duty should be levied on foreign silk, for a period of ten or fifteen years. Because, our raiyats are illiterate and it takes time to train them in improved methods to reduce the cost of producing cocoons and preparing silk. It is therefore necessary, that our industry needs protection for fifteen or twenty years.

58. (a) By levying protective duty on foreign silk, the prices of silk cloth may be enhanced to some extent. The number of handlooms may be reduced. But the number of looms which are not used for weaving silk cloth, can be used for weaving cotton cloth. The weavers are wage earners and it makes little difference for them, whether they weave silk cloth or cotton cloth. They are therefore, in no way put to inconvenience. Silk cloths are purchased by well-to-do people and the slightly enhanced prices, do not affect them.

60. If protection is given to our industry for the period required, it can be possible to develop our industry and reduce the cost of preparing silk.

(1) At least, a rupee per lb. can be reduced.

(2) By growing mulberry trees, we can get a better yield of leaves and reduce cost of leaves.

(3) By using disease-free layings and by using cross-breed worms.

(4) By installing Mysore Domestic Basin instead of country charkas, for reeling, the cost of preparing silk can be reduced.

Sericultural Co-operative Society, Mangalavarpet, Mysore.

1. The industry is in existence from about 120 years in our village. Our ancestors also were doing this as a bye occupation along with agriculture and were also doing this as a bye occupation with the help of our family people.

There are about 15 families, who own mulberry garden in our village and all of them are doing the cultural operations in their spare time. No bearer in our village reels the cocoons and no family is doing this industry as a main industry.

2. The industry may be classified into 3 main branches:—

(1) Mulberry cultivation and silk-worm rearing.

(2) Reeling.

(3) Marketing.

Mostly the management is done by their own family people with regards to mulberry cultivation and silk-worm rearing, etc. This does not require much initial money to start with. In case any money is needed the rearer

borrow the amount for a short period from the local money lenders and repay the same after he harvests the cocoons.

All the rearers sell their cocoons to the reelers. Formerly the reelers were paying advances to the rearers and buying all the cocoons harvested by them. Now the reelers are purchasing the cocoons on credit and repaying the cost only after the silk reeled is sold. The brokers also purchase cocoons from the rearers and get commission both from the rearer and reeler.

The reelers get the cocoons reeled with the help of coolies under their own supervision. In case if they need any money they borrow the same from the silk khoties or from the Sericultural Co-operative Societies and get their work done. The reelers sell all the cocoons reeled to silk khoties. Formerly, the silk khoty owners were paying advances to the reelers and purchase all the silk. Now the silk will be deposited in khoties by the reelers and take some advances.

Our silk is mostly consumed in Kanchi, Kumbakonam, Gadag and other places. The silk khoty owners get commission both from the reelers and consumers.

3. (i) Under the present organisation about 7,200 lbs. of raw cocoons may be produced in our village.

(ii) About 550 lbs. of silk.

Years.	Quantity of cocoons harvested.
1927-28	12,500 lbs.
1931-32	7,200 lbs.

Since I have not maintained correct accounts of our village I have given the approximate figures for the above two years only. The production is decreasing year by year. The reasons are:—(1) the crops are spoiled due to bad seed, (2) due to insufficient rainfall the expected quantity of leaves in the gardens are not harvested.

4. One pound of silk is obtained by reeling about 13 lbs. of Mysore cocoons and one pound of silk by reeling 10-11 lbs. of cross-breed worms distributed by the Sericultural Department.

We do not know for how much quantity of cocoons one pound of silk is obtained in China and Japan.

We are not aware of the closing of any Indian Filatures for want of an adequate supply of cocoons, but the number of country charkas in our surrounding villages has decreased for this reason, namely, our silk is not finding a suitable market.

5. In our village we were rearing only Pure Mysore Race and now some are rearing the cross-breed worms distributed by the Sericultural Department.

The seed cocoons obtained from seed areas will be spread in trays and allow the moths to come out. After the moths emerge they will be picked up and allowed to copulate for 5-6 hours and then separate the male and allow the female to lay eggs. The female moths complete laying of the eggs within a day and the eggs will be kept in a cool place. After the eggs begin to change their colour, they will be given brushings to stimulate hatchings regularly. The eggs take 9-10 days to hatch. After the eggs hatch tender leaves will be chopped into small bits and sprinkled over the hatched ones. After some time the hatched worms along with the sprinkled leaves will be gathered in one place. After the brushing is over, the young worm or chawky will be fed every two hours. The worms cast their skin or go to moult 4-5 days after the brushing. During this period the worms do not eat any food and must be taken care of as not to disturb them when they are in moult. The worms come out of moult after 24-26 hours from the period they commenced moulting. After the worms come out

of moult they will be fed. In this way the worms will cast their skin or go to moult four times from chawki to spinning stage. The bed of the worms will be changed every day and more spacing will be given to facilitate the growth of the worm. As the worm grows old matured leaves will be used and will be chopped according to the size of the silk-worm.

Till the worms go to fourth moult great care should be taken as any sort of negligence on the part of the rearer will spoil the whole crop. After the worms come out of fourth moult they eat much and will be fed with tender leaves for 3-4 days and afterwards they will be fed with matured leaves. 9-10 days after the fourth moult the worm will stop eating, become ripe and begin to spit out silk. Then the ripe worms are picked out and left on chandrikes to spin their cocoons.

Cross-breed worms also behave as the Mysore race, but they will be fed 3-4 times with tender leaves after fourth moult and begin to spin after 5-6 days.

6. (a) In our village the rearings are done only in the dwelling houses and there is no separate house constructed for rearing silk-worms.

The following appliances are required for the use of rearing silk-worms in one acre of garden :—

No.	Name of article.	Amount.	Duration of service.
		Rs. A. P.	
1.	Wooden stands, 2	6 0 0	10 years.
2.	Bamboo trays, 20	6 8 0	2 ,,
3.	Kundas, 8	0 4 0	1 year.
4.	Chopping board and broom, 1	0 2 3	1 ,,
5.	Chopping knives, 1	0 4 0	6 months.
6.	Lamp, 1	0 2 0	1 year.
7.	Cocoanut palm baskets . . . . .	...	2 months.
8.	Gunny to cover the leaves	0 6 0	1 year.
9.	Chandrikes, 4	4 0 0	4 years.
10.	Rat trap	0 6 0	...
Total		18 0 3	

If more chandrikes are required, the rearer takes them for hire from people who have them in stock.

The present rearing house may be improved by (1) providing good ventilators and windows, (2) providing stone or cement flooring to prevent dust rising from the ground, (3) covering the tiled roofing with straw to prevent the heat of the tiles affecting the worms, (4) adjusting the spirals in the chandrikes, the worms may be facilitated to construct good cocoons.

(b)

Race.	No. of days.	No. of cocoons to a pound.	Length of filament.	Denier.
Mysore	30—32	550—600	No.	No.
Cross-breeds	26—28	350—400	„	„

7. The Government Farms are rearing foreign varieties of worms and we see no difference in their methods of rearing and in the methods adopted by us.

8. The seed we use is a local one.

The seed producing areas in the State are Bidadi and Kunigal. The climatic conditions and the soil of these places are suitable for producing seed cocoons. The rearers in these areas rear worms with great care and produce cocoons fit for seed. Recently the Department has opened two Seed Campaign Offices in the above areas and has selected a few intelligent seed rearers and disease-free layings are supplied to them free of cost. The Officers of the Seed Campaign Offices inspect their crops at every stage and offer necessary instructions to rearers in rearing. If the crops harvested are found fit for seed, the officers certify to that effect and help the rearers in disposing of their cocoons. One ounce of seed costs Re. 1-0-9 now (Government rate).

Raiyats purchase 1,000 seed cocoons by paying As. 12 to Re. 1 and prepare about 400 layings. But these layings are not free from disease.

9. We rear (9) multivoltine worms. From one ounce of seed, about 40-44 thousand worms can be obtained. For our village, we require about 120 ounces of seed a year.

10. Generally mulberry is cultivated by the breeder on his own land. Some grow on leased land also. The breeder never buys leaves and rear worms.

(i) The initial cost of cultivating mulberry on one acre of irrigated land is as follows:—

	Rs.
1. Digging	30
2. Weeding and preparing pits	13
3. Manure	10
4. Cost of mulberry cuttings and planting charges	12
5. Watering	15
6. Fencing	5
	—
Total	85
	—

The recurring cost of maintaining one acre of mulberry garden (land below the tank bed):—

	Rs.
1. Land tax	5
2. Manure (25 cart loads and the charges for carting manure)	35
3. Digging, weeding and pruning	45
4. Fencing	10
5. Contingencies	5
	—
Total	100
	—

Generally there will be 7,500 to 8,000 plants planted in pits in an area of one acre of land. In our village about eight thousand pounds of mulberry leaves are harvested from one acre of mulberry. To rear one ounce of Mysore race of silk-worms a quantity of 800 to 850 lbs. of mulberry leaves are required and to rear one ounce of cross-breed race a quantity of 900 to 1,000 lbs. of mulberry leaves are required. One pound of mulberry leaves costs 2-1 pies. Silk-worms are not fed on any leaf other than mulberry.

(ii) The cost of cultivating mulberry (up-keep and maintenance) on one acre of land during 1927-28:—

	Rs.
1. Land tax	5
2. Digging and weeding	45
3. Manure	30
4. Pruning	10
5. Contingencies	5
Total	95

The cost of cultivating mulberry (up-keep and maintenance) on one acre of unirrigated land during 1931-32:—

	Rs.
1. Land tax	1
2. Manure 20 cart loads	35
3. Digging and weeding	45
4. Fencing	10
5. Pruning and contingencies	5
Total	96

(iii) There is no crop alternative to mulberry. For instance if ragi is grown on one acre of land the expenditure and receipts will be as follows:—

Expenditure—	Rs.
1. Land tax	1
2. Ploughing	6
3. Seed	1
4. Harrowing	2
5. Transplanting and weeding	3
6. Harvesting	4
7. Thrashing	5
Total	22
Receipts—	
1. Three candies of ragi	36
2. By other internal crops	8
3. Hay	13
Total	57
Receipt	57
Expenditure	22
Profit	35

12. We have not adopted any methods to improve the quality and supply of food to silk-worms in our village. Of late, we are shown the use of oil cake manures to increase the leaf yield by demonstration at the Government Mulberry Gardens. We are also shown by demonstration the propagation of mulberry trees to reduce the cost of food for silk-worms.

13. About thirty per cent. of the worms are lost during the rearing period, for the following causes:—

- (1) Young worms are lost by subjecting them to high temperature and humidity.
- (2) The worms are lost during the time of changing beds.
- (3) The unmoulted worms are rejected when the worms go to moults.
- (4) The worms are lost by diseases.
- (5) The worms are lost by rats, ants, lizards, etc.

14. There are only three kinds of diseases from which silk-worms suffer and they are:—(1) Pebrine, (2) Flacherie, and (3) Grasserie.

(1) Pebrine disease is caused either by heridity or by contamination. If the disease is hereditary it can be prevented by using disease-free layings. If the disease is by contamination it can be prevented by disinfecting the rearing room and appliances with germicides.

(2) Flacherie can be avoided by feeding the worms with proper quality of mulberry leaves from the beginning of the rearing and by maintaining proper temperature and humidity in the rearing room.

(3) Grasserie can be prevented by not giving wet, fermented leaf containing more percentage of water.

15. Climate is the most important factor for the development of Sericulture, and the governing points are temperature and humidity.

16. 50 to 52 lbs. of cocoons can be harvested from one ounce of Mysore race of silk-worm eggs and 70 to 80 lbs. of cocoons from one ounce of cross-breed race.

17. Figures are not available with me for the whole of the area of my village. I give below my works expenditure for two years for one acre of mulberry:—

Year.	Cost of seed.	Cost of labour.	Cost of leaves.	Cost of appliances.	Other expenses.	Total.
	Rs. A.	Rs.	Rs.	Rs. A. P.	Rs.	Rs. A. P.
1927-28 . .	11 4	15	96	8 3 11	2	132 7 11
1931-32 . .	11 4	15	101	8 3 11	2	137 7 11

The expenditure incurred to rear one ounce of eggs:—

Year.	Cost of seed.	Cost of labour.	Cost of leaves.	Cost of appliances.	Other expenses.	Total.
	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A. P.	As.	Rs. A. P.
1927-28 . .	1 6 6	1 9 4	11 6	1 0 6	4	15 10 4
1931-32 . .	1 6 6	1 9 4	12 0	1 0 6	4	16 4 4

18. The cocoons produced in our village are not sold for seeds, but are sold for reeling.

19. The rearers in our village generally sell their cocoons at the prevailing rates soon after the cocoon crop is harvested. They would never keep the

cocoons waiting for better prices. I give below the prices obtained in each of the last five years per pound of cocoons:—

Year.	Sale of reeling cocoons.	
	From	To
	As. P.	As. P.
1927-28	10 0	12 0
1928-29	8 0	10 0
1929-30	4 6	5 6
1930-31	4 6	5 0
1931-32	4 6	5 0

28. During 1927-28, about 70 families were engaged in the industry and during 1931-32 there are only 16 families engaged in the industry.

37. Raw silk is used for preparing silk fabrics, lace, gold thread, lametta, etc.

42. The grading and sorting of silk is not done on scientific lines. Raw silk is graded according to localities and sorted determining by fineness, uniformity, cleanliness, lustre, feel, strength, etc. This method can be improved by establishing a conditioning house and silk reeling has to improve considerably before establishing a conditioning house.

51. The causes for the decline of the silk industry is due to foreign silk being sold at much cheaper rates than our silk.

53. There is a gradual decline of the silk industry and if the industry is left as it is, the industry will undoubtedly be snatched away from our hands.

55. The revenue duty is more for getting income to Government. By the levy of Protective Duty the industry will be saved and there will be scope for the development of the industry.

56. (a) Our silk industry has natural advantages, such as, raw materials, cheap power, enough labour, and home market.

(b) Without the help of Protection, the industry is not likely to develop, but the industry will be killed.

(c) If the industry is protected now, it can eventually face world competition.

57. (a) Protection is necessary to some extent as it would make foreign silks sell at the rates at which we can sell our silk with profits to the rearer and reeler.

(b) In the form of Protective Duty the industry is to be protected.

(c) The period for this Protective Duty may be for about 15 to 20 years by which time it is possible to introduce new scientific methods, machinery for reeling, etc.

The cost of production also will be curtailed.

58. By the levy of Protective Duty the price for silk fabrics may go up and for some time there may be a contraction of handlooms. These handlooms will gradually be restored for weaving cotton. Weavers are labourers and they get their wages either for silk weaving or for cotton weaving. Silk fabrics are generally worn by rich people who can afford to pay a higher price for the fabrics at a time like this.

No other industries are affected by the Protective Duty.

60. If the industry is given protection, the cost of production can be curtailed by at least one rupee on every pound of raw silk manufactured. The cost of mulberry cultivation also may be reduced by growing mulberry topes. The cost of rearing can be reduced by rearing disease-free layings, particularly cross-breeds, which would minimise losses.

The cost of production of raw silk can be curtailed by reeling cocoons in an up-to-date machinery, such as—Mysore Domestic Basin.

The Ahmedabad Millowners' Association, Ahmedabad.

(1) *Letter No. 1455, dated the 12th September, 1932, to the Government of India, Department of Commerce.*

The Committee of my Association beg to invite the attention of Government to the acute position created by the dumping of extremely low priced foreign silk and silk goods in India resulting in serious consequences to the Indian silk industry. In case adequate protection is not afforded to the indigenous industry at an early date it would be very difficult to save the industry from a complete break-down and ruination.

In this connection the Mysore Chamber of Commerce, Bangalore, has already addressed a comprehensive representation to the Government of India and placed before them full statistics of total production of silk in India and the importance of sericulture practised by small agriculturists as a subsidiary industry in the country. The heavy imports of foreign silk into India particularly from China adversely affected the Indian silk industry in the Indian markets and the enormous rise in the imports of foreign silk into India will hit the industry very hard leaving no scope for any improvement in the near future. The existing scale of import duty on silk and silk goods affords no relief to the indigenous industry particularly in view of exchange fluctuations and heavy dumping. My Committee opines that unless the present import duty on foreign raw silk is raised from 25 per cent. to 100 per cent. the Indian silk industry is not likely to hold its own in the Indian market against heavy foreign dumping. If the enhanced duty is raised for a period of 10 years the indigenous industry has every chance of making improvements and of securing a firm footing in the Indian market. Import duty on silk fabrics which are subject to an *ad valorem* duty of 50 per cent. should be raised to 100 or 125 per cent. with a view to afford relief to the Indian industry and to save it from serious under-selling due to dumping and favourable exchange conditions of foreign suppliers.

The Government of India will be pleased to pay their urgent attention to the existing serious condition of the Indian silk industry and to afford immediate relief to it so that the industry may be saved from the grip of heavy low price, consequent on the dumping of foreign stuff in the country.

(2) Letter dated the 20th January, 1933, from the Ahmedabad Millowners' Association.

I beg to acknowledge the receipt of your letter No. 5 of the 3rd instant, with a copy of the questionnaire of the Tariff Board relating to Sericultural Industry and to state the views of my Committee as under.

In the opinion of my Committee, the inquiry into Sericulture is closely connected with the question of Silk Industry as a whole. Traditionally, India has been famous for its silk manufactures, and hence any step taken by the Government to help India to attain that position would be widely appreciated. Indian mills have begun to use silk in their manufactures and they can be great consumers of silk if the indigenous industry is thriving. Any prohibitive duty on silk imports, both genuine and artificial, will only save the industry from ruin and will enable it to supply the needs of Indian mills.

The menace of foreign competition and cheap dumping by foreign countries especially Japan and China has been accentuated by abnormal currency depreciation. My Committee is entirely in agreement with the proposal of granting protection to the Sericulture Industry as the Mill Industry is closely connected with the silk industry.

The statistics furnished by the Mysore Chamber of Commerce, Bangalore, in their representation to the Government in August last, prove that foreign silk has ousted Mysore silk from its traditional market and has also made inroads in the local market of Mysore. Imports of raw silk from Shanghai

and Canton have further been supplemented by imports of double cocoon silk from Japan. The consolidated effect of all this has been detrimental to the mulberry cultivation and silk-worm rearing which are sources of income to the agriculturists of several provinces.

Mysore, Kashmir and Bengal produce raw silk in a very large quantity and the silk mills have been compelled to close down. In the Bombay Presidency four silk factories have stopped working.

Indian mills are great consumers of silk and hence India with its possibilities and potentialities for the development of the sericultural and silk industry can be a very good source of supply to them.

My Committee trusts that the Tariff Board will be pleased to grant protection to the industry, which is long overdue and will save it from its precarious condition.

Mysore Silk Association, Bangalore.

(1) *Letter dated the 26th December, 1932.*

On behalf of the Mysore Silk Association, I have the honour to place the following facts before you in connection with the question which is now before the Tariff Board of giving adequate protection to the silk industry in India.

The Mysore Silk Association was formed in the year 1927 with the late Mushir-ul-mulk Mir Hamza Hussain, retired member of the Mysore Executive Council, as President, for the furtherance of the sericultural industry in the State. The objects of the Association are mentioned in detail in the Memorandum of Association herewith attached. On the death of Mr. Mir Hamza Hussain in 1928, I was elected as President and have been continuing as such till now.

The membership of the Association is open to all persons interested in sericultural industry in the State. The Association has now 160 members on its rolls—almost all of them being persons actively engaged in the sericultural industry in any one of its stages. The management of the Association is entrusted to an Executive Committee of 16 members. The Director of Industries and Commerce in Mysore, the Director of Agriculture in Mysore, the Superintendent of Sericulture in Mysore and the Registrar of Co-operative Societies are *Ex-officio* Members of the Committee, the other members being non-officials. There are two Honorary Secretaries for the Association—one of whom is the Assistant Superintendent of Sericulture and the other a non-official gentleman. The Committee meets once a quarter or oftener if necessary for the transaction of business and for consideration of questions relating to the promotion of the sericultural industry in the State. For the past one and a half years it has been publishing for the information of its members and others, a fortnightly market report of the current prices of silk (both local and foreign).

So far back as 1928, the question of the slump in the Mysore silk trade, due chiefly to the competition of cheap Japanese and Chinese silk having been brought to the notice of the Committee, it was decided by the Committee to request the Government to take necessary action to investigate the question with a view to the adoption of suitable remedies. Again at one of the sericultural conferences held under the auspices of the Association in 1929, the question was again brought up by one of the members of the Association. Though the question has thus been engaging the consideration of the Association since 1928 it was only during the current year that on account of the tremendous increase in the import of foreign silks (chiefly Chinese) with a crashing fall in the prices, the question assumed such an acute form as to cause a serious apprehension of the utter extinction of this important industry, which gives occupation to a large portion of the population of the State and yields a gross income of nearly a crore of rupees to the State—unless effective measures were adopted to stem the invasion of foreign silks

at prices absolutely ruinous for the local products. In view of the seriousness of the situation, the Association addressed the Mysore Chamber of Commerce and the Mysore Government to move the Government of India to grant the necessary protection to the industry by suitably raising the duty on foreign silk.

The silk industry in India is one eminently fitted for protection. Of the total quantity of raw silk consumed in India nearly one half is produced in the country itself and out of this, the Mysore State alone contributes more than 50 per cent., the remaining 50 per cent. being contributed chiefly by Kashmir, Madras and Bengal. With the splendid natural and other facilities that our country possesses, it should be easy for it to produce all the silk it wants; and Mysore alone can greatly increase its output and supply the major portion of India's requirements in this respect, if the ruinous foreign competition is held in check and the strenuous efforts which are being made by the State for cheapening production and improving the quality of its silk allowed sufficient time to produce their effect.

With these general remarks, I beg to enclose herewith for the perusal of the Board a memorandum giving information in detail about the present state of the silk industry in the State and the imperative and urgent need for its effective protection to save it from the extinction with which it is threatened not only in this state but also, as I understand, in the other silk producing provinces and States in India.

Enclosure.

MYSORE SILK ASSOCIATION.

Memorandum.

Sericulture in Mysore is of great economic importance, affording subsidiary occupation to a good portion of the agriculturists particularly in the maidan parts of the State where it is chiefly practised. It has been in existence for over a century and a half, and has withstood several vicissitudes in its history.

2. The several stages of the industry may be classified under the heads of (1) mulberry cultivation, (2) silk-worm rearing, (3) reeling, (4) re-reeling, twisting and throwing and weaving. It is estimated that the industry affects the well being of one-fifth of the population of the area where it is practised and if to these be added those engaged in weaving, the number of persons dependent on the industry will be much larger. It used to bring in an income of over a crore and a quarter of rupees in normal times to those who practised this industry. These facts indicate the importance of the industry to the people of the State.

3. Sericulture is of great value not merely to Mysore but it is also an all-India asset. Of the total annual consumption of raw silk in India estimated about 4 million lbs., nearly one half is produced in India itself. Mysore heads the list of silk producing Provinces and States in India with an output of over a million lbs. a year, or in other words, Mysore is responsible for producing a half of the total output in India. This important Indian industry is seriously threatened with extinction on account of the tremendous increase in the import of foreign silk (chiefly Chinese and to some extent Japanese) at a price with which the local Indian product finds it impossible to compete.

4. The annexed statement (marked A) gives the quantity and value of the raw silk annually imported into India from China, Japan and other foreign countries from the year 1923-24. It will be seen from the statement that the total import of foreign raw silk which amounted in 1923-24 to 1,365,000 lbs. (of which 1,102,000 lbs. was contributed by China alone) steadily increased in subsequent years and mounted up to 2,175,000 lbs. in 1929-30 of which China's contribution amounted to 1,964,000 lbs. In the year 1931-32, there was slight contraction in imports chiefly due to disturbances in China which affected the exports from Shanghai. But since the

resumption of normal activities in China the rate of increase has been considerably accelerated with the result that for the first seven months alone of the current year 1932-33, the imports have exceeded 2,144,000 lbs., which is very much more than the entire annual imports in many of the previous years. The imports of raw silk from Japan which were about 17,000 lbs. in 1930-31 increased to about 33,000 lbs. in 1931-32, and during the first seven months of the current year the imports have exceeded a lakh of lbs. This situation is full of menace for India, as Japan which occupies the first position among the silk producing countries of the world has certain decided advantages in the manufacture of low grade silks, especially Duppons which are bye-products and which could be sold at comparatively cheap rates.

5. The large increase in the quantity of imports has been accompanied by a heavy fall in the prices of the imported silks with disastrous results for the local products. Both China and Japan are now in a very favourable position with regard to their exports to India, as the exchange is very favourable to them. In the Bangalore market Chinese silk, the bulk of which consists of Canton steam filatures, is being sold at prices far below those obtaining for Mysore silks of similar quality. The annexed statement marked B shows the comparative prices of Chinese (Canton) and the Mysore silks for the six years from 1927-28. It will be seen therefrom that the price of Canton silk which stood at Rs. 10-6 per lb. in the year 1927 (December) has now gone down to about Rs. 5-2, i.e., by more than 50 per cent. From careful calculations made with the help of persons engaged in sericultural industry, it is ascertained that the actual cost of production (without allowing any margin for profits) of the Mysore silk known as Sidlaghatta and Kempanahalli silk comes to about Rs. 6 to Rs. 6-4 per lb. whereas China silk of about the same quality sells at about Rs. 5-12 per lb. after paying an import duty of 25 per cent. and also commission, insurance, etc., charges of 5 per cent. In the case of superior grades of silk such as the domestic basin silks and filature silks, the disparity is even greater, as the costs of production of the above silks in Mysore are about Rs. 7-12 and Rs. 9 per lb. respectively, whereas the prices of similar silks from Canton and other places are as low as Rs. 6-4 to 6-8 per lb. inclusive of duty, which gives about Rs. 4-14 per lb. at the port of entry without the duty.

6. To what extent the production of Mysore silk has been affected by this ruinous competition with the foreign (particularly Chinese) silk will be evident from the fact that the quantity of raw silk imported from the State which amounted to 746,692 lbs. in the year 1926-27 has been steadily going down year after year. During the last three years alone it has fallen from 619,650 lbs. in 1928-29 to 383,000 lbs. in 1931-32. The result of this great fall in production is noticeable at every stage of the industry. The total area under mulberry which was 53,483 acres in the year 1926-27 has now shrunk to 36,611 acres. Even this does not represent the extent of the actual fall in the cultivation, for many of the mulberry lands shown as such in the agricultural return have, owing to the depression of the industry been so much neglected, if not abandoned, as to greatly reduce their productivity. Enquiries made among the villages where the industry was being practised for generations show that nearly 50 per cent. of the people who were engaged in silk worm rearing, reeling, etc., have been thrown out of employment owing to their inability to stand the strain of competition. The situation, bad as it is, will get much worse if effective measures are not taken to meet it. Once this industry which has been built up during the course of generations is allowed to decay, it may become impossible to revive it or to replace it by another which possesses equal facilities and advantages to those engaged in it.

7. In view of all the facts and circumstances mentioned, it is hoped that it will be readily conceded that the silk industry in India is in need of immediate and effective protection. Judging from the costs of production in the Mysore State, the Silk Association is of opinion that a duty of 100

per cent. on imported foreign silk is quite necessary under present conditions to afford adequate protection to the silk industry to save it from extinction.

8. As already observed in paragraph three above, India now produces about 50 per cent. of the total quantity of raw silk consumed in the country; and of this Mysore contributes nearly a half. Mysore is admirably fitted for sericulture and has great natural advantages for the expansion of the industry. The Government of Mysore have long recognized the potentialities of the industry in the State, and have adopted a steady and considered policy for improving and developing it. It is needless to enumerate here the directions in which the State has been organizing the industry, or to refer to the striking manner in which the industry has responded to these efforts in the past. With the help and encouragement offered by the State, it should be possible, in the course of a very few years, to effect great economy and improvement in the production of silk and place it in a position to successfully withstand competition, if the severe handicap to which the industry is now subjected be removed for a time. But if, on the contrary, the industry continues to be exposed to the full blast of foreign competition, it will certainly be killed ere long without any chance of revival.

9. The question of the protection of raw silk has so far been dealt with. Closely connected with this is the question of the rate of duty on silk manufactures such as silk yarn, spun silk and silk fabrics. Any increase of duty on raw silk without a corresponding increase on manufactured goods would obviously not be of any avail, as the raw silk now coming into India will then be manufactured abroad and imported as finished goods, thereby not only destroying all markets in India for raw silk produced in the country but also depriving the silk weavers in this country of their occupation. Hence, if the proposed increase of duty on the imported raw silk is to be effective, it is necessary that the duty on silk fabrics imported into India—particularly fabrics of the kind which are or can be made in India—should also be correspondingly increased. A duty of 125 per cent. on such goods is considered by the Mysore Silk Association as being quite suitable and proper on a consideration of all the circumstances of the case. The duty may be assessed either on the basis of invoice or it may be specific duty depending upon the quantity. The incidence of the proposed duties will almost entirely fall on the richer and the upper middle classes and will therefore not entail any great hardship on the consumer.

10. It is earnestly required that the relief sought for may be granted as early as possible as this sorely tried industry has not got sufficient stamina to stand the present depression much longer.



सत्यमेव जयते

STATEMENT B.

Showing the prices of Mysore and Canton Silk in Bangalore Market.

Year.	Mysore silk rate per lb.	Year.	Canton silk rate per lb.	Remarks.
	Rs. A.		Rs. A.	
1926-27	9 8	1927	10 5	
1927-28	9 0	1928	7 4 to 10 5	
1928-29	8 0	1929	10 5 to 10 6	
1929-30	7 14	1930	5 14 to 9 0	In the beginning of the year only.
1930-31	6 0	1931	6 0 to 8 4	
1931-32	5 10	1932	5 2	
1932-33 (till the end of December 1932).	5 4 to 5 10	..	..

(2) *Letter dated the 6th February, 1933, from the Mysore Silk Association, Bangalore.*

In continuation of my telegram of the 2nd instant stating that the replies to the questionnaire issued by the Tariff Board in connection with the protection to Silk Industry in India would be sent to you on the 5th instant, I have the honour to enclose herein six copies of answers to the questionnaire prepared by me on behalf of the Mysore Silk Association.

Enclosure.

REPLIES TO QUESTIONNAIRE ISSUED BY THE INDIAN TARIFF BOARD IN REGARD TO
SILK INDUSTRY IN INDIA.

1. The Sericultural Industry in Mysore is more than a century old. It is practised mostly as a subsidiary industry (subsidiary to agriculture), in about 2,500 villages covering an area of about 10,000 square miles in the maidan Districts of Bangalore, Mysore, Tumkur and Kolar. Attempts are being made to introduce it in the other Districts also of the State; but owing to the depressed condition of the industry for some time past, appreciable progress could not be made in this direction.

The industry in its various stages gives occupation to over 1½ lakhs of families or nearly 5 lakhs of persons as detailed below (in the absence of accurate official statistics, the figures given are only approximate):—

	No. of families.
(1) Mulberry growing and silk-worm rearing	100,000
(2) Reeling	10,000
(3) Re-reeling, twisting and throwing	25,000
(4) Weaving	
Total	135,000

The mulberry grower generally rears his worms also; and in rare cases, he sells the leaves to the rearer of worms. The rearer generally sells his cocoons to the reeler, though in exceptional cases, he reels his own cocoons.

2. The mulberry grower who is also generally the silk-worm rearer, ordinarily finds his own money for his cultivation and other expenses—borrowing when necessary from the local moneylender or co-operative society. He is also sometimes financed by the purchaser of the cocoons who advances the money required and recovers it from the value of the cocoons supplied to him.

Ordinarily, the rearer gets the value of the cocoons from the reeler at the time of sale; but when business is dull, he has to wait till the reeler gets a sale for the silk reeled by him.

The reeler generally gets his finance from the merchant with whom he has arranged for the purchase of the silk reeled by him. Here too, he cannot always get the full value of the silk from the merchant immediately on delivery but has often to wait till the merchant finds a sale for the silk.

There are no regular or well established organisations for the marketing of cocoons or the reeled silk and it is chiefly done by private arrangement.

The above remarks apply to the charka silk (i.e., silk reeled on country charkas), which forms about 94 per cent. of the silk produced in the State, the filatures and domestic basins contributing the remaining 6 per cent.

3. Of the area under mulberry nearly 70 per cent. is dry (rainfed) and the remaining 30 per cent. is irrigated. The yield of mulberry is about 10,000 lbs. per acre for irrigated and 6,000 lbs. per acre for dry land—giving an average of about 7,200 lbs. per acre—which should give about 450 lbs. of cocoons. This is, however, the maximum average attainable for each acre of mulberry under the most favourable conditions—with seasonable rainfall, absence of disease among worms, etc. Owing, however, to unfavourable season conditions, diseases among worms, etc. (and of late, also to the indifferent attention paid by raiyats to the cultivation of the plant on account of the depressed condition of the industry),—the actual yield is generally less.

The subjoined table gives the area under mulberry, the maximum quantity of cocoons attainable therefrom and the actual quantity obtained during each of the past 6 years:—

Year.	Area under mulberry in acres.	ESTIMATED MAXIMUM ATTAINABLE.		ACTUAL PRODUCTION AND VALUES.			
		Quantity of cocoons in lakhs of lbs.	Quantity of silk in lakhs of lbs.	Quantity of cocoons in lakhs of lbs.	Value in lakhs of Rs.	Quantity of silk in lakhs of Rs.	Value of silk in lakhs of Rs.
1926-27 . .	53,483	243.00	18.85	150.00	88.00	11.50	110.20
1927-28 . .	50,194	222.00	17.10	130.00	75.00	10.00	90.00
1928-29 . .	46,312	207.00	16.00	120.00	62.00	9.20	73.00
1929-30 . .	43,624	198.00	15.20	114.40	55.00	8.80	69.30
1930-31 . .	42,881	190.00	14.61	111.80	35.00	8.60	51.60
1931-32 . .	36,511	164.00	12.61	96.20	30.00	7.40	41.62

It may be observed here that the highest area under mulberry attained by the State was 53,483 acres in the year 1926-27 which has gradually got reduced to 36,511 owing to the decline of the industry. If the above area had been maintained the maximum quantity of cocoons obtainable therefrom would be 243 lakhs of lbs.

4. The cocoons generally reared in the State are from the Mysore race of worms and they give a silk content of 12 per cent. Hybrids between pure Mysore and Chinese and Japanese races of worms supplied by the Department of Sericulture are also being reared by the ruiyats in some places and they have a silk content of about 13 to 14 per cent.

There have been only two filatures in Mysore—one run by Government and the other owned by a private gentleman, and both continue working—though hit hard by the depression in the industry. A good number of country charkas have, however, ceased or suspended working owing to the depression and the owners thereof thrown out of occupation to a great extent.

5. Unlike Chinese and Japanese silk-worms which are univoltine or bivoltine, the indigenous Mysore silk-worm is multivoltine. It feeds on mulberry leaf and yields good lustrous silk of high quality. Of late, hybrids between pure Japanese or Chinese races are also being reared by the sericulturists; but these form a very small part of the total seed supply. The Mysore worm takes about 30 days after hatching to form its cocoon while the hybrid worm takes about 25 days. For a detailed description of the process of rearing the worms, etc., kind reference is invited to pages 2 and 3 of the memorandum on Sericulture in Mysore prepared by the Director of Industries and Commerce in Mysore, copy of which is attached.

6. The sericulturists in Mysore do not generally have separate rearing houses. The silk-worms are reared in a portion of the dwelling houses. Pukka buildings with proper arrangements for ventilation, etc., are constructed by Government for rearing at a cost of about Rs. 3,000 each in their Departmental Silk Farms. The equipment of a rearing house includes stands, trays, chandrikes, bamboo baskets, gunny-bags or hessian cloth, lantern, rat-trap, and earthen or iron pots for keeping stands. The stands are made of jungle wood supports, with bamboo cross-bars, each stand holding 10 to 12 trays of silk-worms. The trays and chandrikes are entirely made of bamboo. All these appliances are obtainable locally.

The cost of equipment for a rearing house capable of rearing 2 ounces of seed at a time ranges from Rs. 45 to Rs. 60 according to the locality. The stands last between 5 and 8 years and the chandrikes 3 to 5 years. The other articles of equipment require renewal at shorter intervals of 6 months to 2 years. The charges on appliances for rearing silk-worm from an ounce of seed vary from Re. 1 to Rs. 2 according to local conditions.

The rearing houses and the equipment now used by the sericulturists admit of considerable improvement and the matter is receiving due attention at the hands of the Sericultural Department as well as the Mysore Silk Association.

7. It is understood that the method of rearing adopted in Mysore does not vary in essentials from that in vogue in other countries.

8. The silk-worm generally reared by sericulturists in Mysore is of the indigenous kind. In recent years, hybrids between Mysore and Japanese or China races are also being reared by the sericulturists from seed prepared and supplied by the Sericultural Department which imports the Japanese and Chinese seeds from time to time for the purpose.

There are special and separate agencies for the production and supply of seed apart from that for reeling cocoons. These consist of:—

- (1) Private seed cocoon producers in certain areas like Bidadi and Kunigal who specialize in their production.
- (2) Government grainages.
- (3) Aided grainages.
- (4) Sericultural Co-operative Societies.

All these work under the supervision and control of the Department of Sericulture. Besides these, there is a class of silk-worm rearers called "Chawki" rearers who specialize in procuring seed cocoons or disease free

layings and rear young worms till the end of first moult and sell these to the sericulturists who rear the worms for producing reeling cocoons. This system has its advantages inasmuch as the "Chawki" (young worm) is reared with great care to avoid losses in the further processes of rearing. The staff of the Sericultural Department is in intimate touch with these people, also. For other particulars of the organization, please see the printed note about "Development of Sericulture in Mysore" published by the Department of Sericulture.

The cost of production of one ounce of disease free layings in (1) the aided grainages and (2) the Government grainages during the past 4 years was as follows:—

Year.	Cost of production per ounce			
	In Govt. Grainages.		In Aided Grainages.	
	Rs.	A. P.	Rs.	A. P.
1928-29	2	13 8	1	8 9
1929-30	2	9 1	1	7 3
1930-31	2	3 7	1	3 4
1931-32	2	1 3	1	0 9

The cost in the Government grainages has been higher owing to their better equipment and highly trained labour and the more scientific methods adopted in them. The seeds are supplied however by the Government from their grainages to the raiyats at about half their cost price with a view to encourage and popularise their use.

9. The Mysore race of worms is multivoltine which gives 5 to 6 crops in a year. The Japanese and Chinese races reared in the Government Farms are univoltines and bivoltines. It is understood that by the adoption of artificial hatching methods, 5 to 6 crops of univoltine and bivoltine races also are reared in the Government Silk Farms. An ounce of Mysore Silk-worm seed gives about 42 to 45 thousand worms.

The total quantity of seed utilised in the State during 1931-32 is said to have been a little over 3 lakhs of ounces.

10. The silk-worms in Mysore are fed on mulberry leaves. Mulberry cultivation and silk-worm rearing go hand in hand. In Mysore the system of plantation is bush. Of late, the Department of Sericulture have been advising raiyats to plant mulberry trees also. The initial expenditure for planting a new mulberry garden varies between Rs. 75 and Rs. 100 per acre. Mulberry gardens may be rainfed (in dry lands), and irrigated where there are facilities for irrigation. The cultural operations comprise of digging, manuring, weeding, etc., and these are done at fixed intervals. Generally, one digging is given after harvesting a crop of leaves. Manure is applied one to two times in a year. The manures most commonly used are Farm-yard manure, and silk-worm litter. Artificial manures and oil-cakes are also being used of late. Gardens in dry lands generally yield 4 to 5 crops a year, while irrigated gardens give six to seven crops of leaves. From crop to crop the size of leaf, and quantity of leaf diminish. In summer rainfed gardens do not yield leaves, while irrigated gardens are in bearing all the year round.

The quantity of leaf harvested per year from an acre of rainfed mulberry garden is about 6,000 lbs., and that from irrigated garden is about 10,000 to 15,000 lbs. depending upon the quantity of manure used and the cultural operations done. The costs of cultivation per year per acre vary from Rs. 130 to Rs. 200 per annum in the case of irrigated gardens, while the expenditure on rainfed garden may come up to Rs. 80.

Mulberry gardens last between 8 and 15 to 20 years according as they are rainfed or irrigated. The number of plants per acre varies from 4,000 to 5,000 in Mysore District, and in areas where mulberry is cultivated in dry lands. In gardens along river banks in Channapatna area, the number may vary between 8,000 and 10,000. In Kolar District and parts of Banga-

lore District, the number of plants per acre may vary from 60,000 to 80,000 per acre.

The initial and recurring expenses vary according to locality and system of plantation. From information gathered from certain representative raiyats, the approximate averages for the several kinds of gardens are given below:—

	Initial Expenditure.	Annual Now.	Expenditure 5 years or so ago.
	Rs. A.	Rs. A.	Rs. A.
(1) Dry land	73 4	63 4	92 12
(2) Tank irrigated gardens .	108 0	86 0	134 8
(3) Deep well irrigated gardens	165 0	142 8	186 0
(4) Shallow well irrigated gardens	100 0	144 0	...

11. For answer regarding the cost of cultivating mulberry per acre now please see reply to question No. 10. There are no alternative crops to mulberry in the sense of their being grown on mulberry lands by rotation. The mulberry lands can, however, in the event of the abandonment of mulberry cultivation be used for other crops such as Jawar, ragi, and horsegram, ordinarily grown in dry lands, and paddy, sugarcane, potato and onions, etc., grown on wet and garden lands in the locality. The approximate total cost of cultivation of one acre of some of the above and the receipts therefrom are given below:—

	Expenditure per acre.	Receipts per acre.
	Rs.	Rs.
(1) Jawar (jola)	47	49
(2) Ragi	46	50
(3) Sugarcane	135	165
(4) Potatoes	250	300

12. The following steps are understood to be taken by the Sericultural Department to reduce costs of production of mulberry leaf and to improve the quality of leaf:—

- (1) Improvement in cultural operations including manurial experiments to increase the yield of leaf.
- (2) Introduction and propagation of better varieties of mulberry from China and Japan.
- (3) Improvement of Mysore mulberry by grafting and other methods.
- (4) Popularisation of mulberry topes.
- (5) Eradication of pests affecting mulberry.

13. On an average about a third of the worms hatching are lost in rearing. The chief causes are the following:—

- (1) Loss in changing beds.
- (2) Loss from insects such as lizards, cockroaches, rats, ants, etc.
- (3) Losses due to diseases.

14. In Mysore the silk-worms suffer from the following diseases:—

- (1) Pebrine, (2) Flacheri, (3) Grasserie.

Pebrine is both hereditary and contaminating. The remedies adopted are:—

- (1) Examination of seeds to eliminate diseased ones;
- (2) Use of disease free eggs.
- (3) Disinfection of rearing houses and appliances.

Flacherie.—This disease is brought about by sudden variations in temperature and humidity, bad or unsuitable quality of mulberry leaf fed to the worms and faulty or defective rearing especially of the young worms. The Sericultural Department combats this by popularising better methods of rearing.

Grasserie.—This disease, the loss from which is not considerable, is said to appear when there is sudden rainfall after a dry spell when worms which have been previously fed with leaves with low moisture content are subsequently fed with leaves having high moisture content.

15. Climate is certainly a very important factor in the rearing of silk-worms. Though the ideal temperature for rearing of worms may be between 75 Degrees to 80 Degrees Fahrenheit with 50 to 70 per cent. humidity, worms can, with proper care, be reared even over wide ranges of the above percentages. That the Mysore State possesses the most favourable conditions for the rearing of the worms is evidenced by the progress the industry has made and the high level it has attained among the sericultural provinces and states not only in India but also of the world.

16. Sericulturists who use disease free layings get for each ounce of seed about 50 lbs. of cocoons for the Mysore race of worms and 70 lbs. for cross-breeds.

17. The sericulturists do not maintain regular accounts and they cannot therefore give accurate figures in this respect. The figures moreover, vary from place to place. The average figures for rearing one ounce of seed five years ago and now so far as they could be ascertained from enquiries made are as follows:—

	T. Narsipur area— Dry.	Channa- patna area —River.	Chickballa- pur well irrigated.	Kunigal seed area— Dry.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Cost of seed . . .	1 6 7	1 6 5	3 4 0	1 6 6
2. Cost of labour . . .	2 13 0	1 14 0	3 0 0	3 0 0
3. Cost of leaves . . .	12 8 0	11 1 4	15 6 10	18 3 0
4. Cost of appliances . . .	1 8 0	0 11 5	2 4 8	2 4 8
5. Other expenditure . . .	0 6 0	0 4 0	0 8 0	0 9 5
TOTAL .	18 9 0	15 5 2	24 7 6	25 7 7
<i>Now.</i>				
1. Cost of seed . . .	1 0 9	1 6 5	2 0 0	1 0 9
2. Cost of labour . . .	2 4 0	1 14 8	2 0 0	2 6 0
3. Cost of leaves . . .	11 8 0	12 0 0	11 10 9	14 9 0
4. Cost of appliances . . .	1 0 0	0 11 5	1 14 4	2 4 8
5. Other expenditure . . .	0 4 0	0 4 0	0 4 0	0 9 5
TOTAL .	16 0 9	16 4 6	17 13 1	20 13 10

18. About 97 per cent. of the cocoons produced in the State are used for reeling, and three per cent. for seed purposes, a good portion of the latter being supplied to the rearers in the Kollegal Taluk of the Madras Presidency. The reeling cocoons are sold by weight and seed cocoons by number. Generally, the seed cocoons fetch higher prices than the reeling cocoons.

At present reeling cocoons sell at five annas per pound and 1,000 seed cocoons weighing a little less than two pounds at As. 12 to one rupee.

19. Cocoons are sold to reelers or to dealers in cocoons by sericulturist. They are sold as soon as they are formed irrespective of the state of the market as otherwise, the moths will emerge and the cocoons become unfit for reeling purposes.

The average prices of cocoons for the past nine years are given below:—

	Per lb. As. p.		Per lb. As. p.
1924-25 . . .	10 2	1929-30 . . .	7 6
1925-26 . . .	9 8	1930-31 . . .	4 7
1926-27 . . .	9 6	1931-32 . . .	5 0
1927-28 . . .	9 3	1932-33 (up to end of December) . . .	4 10
1928-29 . . .	8 3		

The average production of raw silk and waste for 100 lbs. of raw cocoons in country charka is about 7½ lbs. and 4 lbs. respectively, the yield of silk depending upon the quality of silk produced.

20. The following kinds of reeling machines are used for producing raw silk in Mysore:—

- (1) Indigenous Country Charka which forms the largest number about 4,000.
- (2) Mysore Domestic Basins of which there are about 125.
- (3) French and Italian Filatures.

The first two are worked entirely by hand.

In the filatures of which there are only two as mentioned in answer to question No. 4, the reels are run by power but the actual reeling work in all the machines is done by hand. The domestic basins have practically been idle for some time past owing to the depression of the industry.

Charka.—This is a simple machine consisting of a wooden reel in frame-work resting on an iron axle at one extremity and mounted on two wooden supports about 3 to 3½ feet high. The charka is turned by the handle. The wooden supports on which the reel is mounted are fixed parallel to and about 3 feet or so from the oven. The oven has a copper or earthen basin fixed into it. The “Charka” has a distributor to it. The “Tharpatti” through which the silk thread passes is mounted on a bamboo, and this rests against the reeling pan. The cocoons are filled in bamboo baskets containing about 25 to 30 lbs. and steamed by keeping them on the reeling pan which contains boiling water. To steam one consignment it takes about half an hour or so. The steamed cocoons are kept in bamboo trays spreading them in thin layers to allow them to air dry. This should be allowed to remain for two or three days in the trays and then used for reeling. Steamed cocoons cannot be stored for more than two weeks. Great care must be taken of cocoons during rainy season. To reel the silk it is necessary to cook the cocoons to dissolve the gum. For this purpose small quantities of cocoons are taken at a time and cooked for about 4 to 5 minutes in boiling water in the basin. The outer layer of cocoons which is floss is removed by means of a small brush and is collected as waste (i.e., silk-waste of commerce). The true ends of the filaments are found and a sufficient number of these is joined and drawn out through the “Tharpatti” and passed on over the distributor and on to the charka, and wound round. When the turner turns the charka the thread is wound round. The reeler keeps feeding the cocoons. The process is repeated. There are certain obvious defects in this system of charka reeling. The cooking of cocoons, preparing and reeling are done in the same basin. Cooking and reeling need different temperatures and this facility is lacking here. Consequently elasticity and tenacity may suffer. The water is too dirty for the reeler to observe the exact number of cocoons fed,

Every charka has a reeler and a turner and an extra cooly for splitting fuel and supplying water.

Domestic Basins.—This basin was designed by Mr. N. Rama Rao, then Superintendent of Sericulture, and patented by the Sericultural Department. It consists of a wooden table (rectangular about 27"×18") completely covered with zinc sheet and has a copper reeling pan about 18"×10"×3" fixed into it. The table is mounted on angle iron posts about 3 feet high. It has a separate copper cauldron which supplies hot water to the reeling basin. It has also a cooking basin fitted close to the copper cauldron on the oven. The cocoons are cooked in the cooking basin by the cooker and passed on to the reeler who finds true ends and passes in Jette-Bouts which catch the thread that is drawn out by the reeler and taken through a system of pulleys that gives a "croissure", and the thread is passed on to the reel through the glass guide attached to the distributor moving in front of the reel. The system of Jette-Bouts and system of pulleys is fixed to a frame-work in iron and adjusted on reeling table. The reel box is behind the reeler and close to him to enable him to knot the broken ends. The silk reeled in this is high grade. Cooking and reeling of cocoons are done in separate basins.

There is a "Croissure" which ensures cohesion, etc., of the thread. Uniformity in size can be maintained as the reeler is able to see the number of cocoons fed, and the thread is continuous as knotting is done. The set is durable and portable and within easy means of reelers. The domestic basin is hand driven. There is a central axle to the reel which has the fly-wheel attached to it. The fly-wheel has a belt that conveys motion to another rod attached to the reeling table in front of it. This rod rotates by means of the motion conveyed by the belt and in turn conveys it by means of strings passing round the wooden pulley and on to Jette-Bouts. The cold water necessary for reeling basin and the copper cauldron is supplied from the tank kept on the reel-box. The reeling basin receives supply of hot and cold water from the copper cauldron and tank respectively.

Filature Basins.—The filature basins are more or less like domestic basins in essentials. But there are separate arrangements for brushing. The heating is done by steam. In addition to cookers and reelers separate knotters are employed for knotting the broken ends.

21. The following statement shows the estimated total output of raw silk and silk-waste in the State together with their values during the past six years:—

Year.	PRODUCTION OF RAW SILK.		PRODUCTION OF SILK-WASTE.	
	Lbs.	Value.	Lbs.	Value.
		Rs.		Rs.
1926-27	11,60,000	1,10,20,000	5,80,000	5,80,000
1927-28	10,00,000	90,00,000	5,00,000	2,50,000
1928-29	9,20,000	73,60,000	4,60,000	2,30,000
1929-30	8,80,000	69,30,000	4,40,000	2,20,000
1930-31	8,60,000	51,60,000	4,30,000	1,07,500
1931-32	7,40,000	41,62,500	3,70,000	92,500

In filatures 18 to 20 lbs. of green cocoons are required to produce one pound of silk. In charkas about 13 to 14 lbs. of cocoons are required to produce one pound of silk. The proportion of waste to raw silk is about one half to 3/5ths in the charkas and 7/10ths to 3/4ths in the filatures.

22. The initial cost of equipment of country charka varies from Rs. 10 to Rs. 15. A charka gives about $1\frac{1}{2}$ lbs. of silk per day and lasts with occasional repairs for about five to six years.

Mysore Domestic Basin.—A single basin unit costs Rs. 200, and the Department of Sericulture sells it to Mysore raiyats at a concession rate of Rs. 130. Double basin unit costs Rs. 350 and is sold at Rs. 250; and five basin unit costing Rs. 800 is sold for Rs. 600. One basin gives one to one and half lbs. of silk per day according to the size of silk reeled. The life of these basins is understood to be about 20 years.

23. (a) The cost of production per lb. of charka silk during 1931-32 amounted to Rs. 6 as per details given below :—

For a daily production of $1\frac{1}{2}$ lbs :—

	Rs.	A.	P.
1. Cost of cocoons	6	9	0
2. Cost of labour	0	14	0
3. Cost of fuel	0	10	0
4. Cost of water	0	4	0
5. Cost of supervision and management	}	Self.	
6. Cost of repairs and maintenance			
7. Selling expenses	0	2	3
8. Other expenses	0	11	0
	<hr/>		
	9	2	3
<i>Deduct cost of waste</i>	0	2	3
	<hr/>		
	9	0	0
	<hr/>		

Cost per lb. Rs. 6.

The actual cost varies from place to place, ranging between Rs. 5 and Rs. 6-4. The figures given above are the average.

(b) The cost of producing 1 lb. of silk in domestic basin during 1931-32 amounted to Rs. 7-14 as follows :—

For a daily production of 5 lbs. on the basin—

	Rs.	A.	P.
1. Cost of cocoons	31	4	0
2. Cost of labour	3	12	0
3. Cost of fuel	1	0	0
4. Cost of water	0	10	0
5. Cost of management	}	Self	
6. Cost of repairs, etc.			
7. Cost of selling	0	7	6
8. Cost of other expenses	3	6	0
	<hr/>		
	40	7	6
<i>Deduct cost of 3 lbs. of silk-waste</i>	1	2	0
	<hr/>		
	39	5	6
	<hr/>		

Cost of production per lb. of silk Rs. 7-14.

As regards the cost of production in previous years, except the variations in the price of the cocoons—which are furnished in answer to question No. 19, there has been no material alteration in the other items.

24. It is understood that the two filatures in Mysore—the Government filature as also the private owned one—are not at a disadvantage as compared with those in other countries in respect of the above items of expenditure.

28. Accurate statistics are not available in this respect. The figures given below which are based on careful estimates made may be taken, however, as fairly approximate :—

	No. of families engaged.	
	1926-27.	1931-32.
1. Mulberry cultivation and silk-worm rearing and No. of families indirectly benefited such as those employed in cultural operations, supply of appliances, etc. . . .	160,000	100,000
2. Reeling	15,000	10,000
3. Weaving and connected operations and other miscellaneous works	20,000	25,000
	<hr/> 1,95,000	<hr/> 1,35,000

30. (i) (a) 8 annas to 10 annas per day is the rate of wages paid to reelers working with charka.

(b) 6 annas to 8 annas per day to reelers working with Mysore domestic or other basin.

(c) 7½ annas to 9½ annas per day in the Government filature.

(ii) The sericultural industry in the State is in no way hampered by inefficiency of labour. Its depression is entirely due to influx of cheap foreign silks.

(iii) In Mysore the Department of Sericulture trains sons of rearers, reelers and other skilled labourers in its institutions. Free reeling schools are attached to domestic units. Silk twisting schools are provided to train women in reeling and twisting. Reeling and grainage demonstrations are held for the benefit of reelers and ryots in sericultural villages. The sericulturist is imparted instruction in improved methods of rearing by the staff of the Department. Scholarships are awarded by Government as well as by local bodies to enable sons of sericulturists to obtain training in Government Farms. In a few middle schools, training is being imparted in Sericulture as a vocational subject.

35. In the Mysore State, no spinning of silk-waste is carried on. Ghosha ladies prepare hand spun silk from pierced cocoons during their leisure hours. The quantity of hand spun silk is small. Re-reeling and throwing of charka silk are being carried on in some of the silk centres. In some places, Government have started re-reeling and twisting schools.

36. Bangalore City has a few throwing factories. At Mamballi (Mysore District), a silk throwing factory has been established recently. These throwing factories generally do commission "throwing".

37. The raw silk is used for weaving of silk fabrics, manufacture of gold thread and nakhi, etc.

38. The total Indian demand for raw silk is about four million pounds.

(ii) The total Indian production of raw silk is about two million pounds—not less than 50 per cent. of the demand. Nearly half of this is contributed by Mysore.

39. The subjoined table shows the total quantity of silk produced in the Mysore State and the quantity exported from the State for use in other parts of India during the past 6 years :—

Year.	Raw silk quantity produced.	Quantity sold for use in other parts of India.	SILK-WASTE.	
			Quantity produced.	Quantity exported.
	Lbs.	Lbs.	Lbs.	Lbs.
1926-27	1,160,000	746,692	580,000	613,228
1927-28	1,000,000	670,760	500,000	480,848
1928-29	920,000	619,650	460,000	493,394
1929-30	880,000	552,844	440,000	462,890
1930-31	860,000	383,440	430,000	234,720
1931-32	740,000	367,440	370,000	266,560

It will be seen from the above that about 30 to 40 per cent. of the silk is used locally, *i.e.*, in the State itself, and the rest is exported to other parts of India.

Bangalore is the biggest silk market in the State. Next in importance come Channapatna, Sidlaghatta, and Chickballapur. Bangalore has about forty silk koties. The reeler deposits his silk in the silk koties and receives an advance varying between 50 and 70 per cent. of the value of the silk. In addition to interest on the money so advanced, a commission of one anna per seer (of 26½ tolas) is also charged by the koti-owner to the reeler. The koti-owner sells either direct or through a broker to large purchasers from outside Mysore. The broker charges a commission of 2 to 4 annas per lb. of silk. These brokers who are five in number in Bangalore City arrange for credit sales also when necessary. They have their clients in Gadag, Hubli, Belgaum, Conjeevaram and Salem.

The koti-owner sends quotations to customers in different silk weaving centres of trade outside the State, and sends out consignments as orders are received therefor. So soon as the value of the silk is received from the consignee, it is credited to the account of the reeler and the advance made to him is adjusted out of it.

All the silk-waste produced in Mysore is exported through Bombay or Madras. The silk-waste merchants in Bangalore and Channapatna have their agents in reeling centres who collect the waste and send it to the headquarters. The silk-waste merchants supply waste to exporting houses. The exporting houses may in some cases render financial assistance. Generally, the amount is paid on the receipt of Railway receipt.

40. The chief silk markets for Mysore silk are Gadag, Hubli, Belgaum and Bagalkote in Bombay Presidency, and Trichinopoly, Conjeevaram and Kumbakonam in Madras Presidency. The quantity of silk sent to Northern India markets is very little. Foreign silks are generally imported into Bombay and Tuticorin. Of late, it would appear that Madras also imports foreign silks.

The distances and freights are noted below :—

	Distance in miles.	Freight per 75 lbs. Rs. A. P.
Bangalore to—		
Gadag	290	3 3 0
Hubli	292	3 3 3
Belgaum	330	3 15 0
Bagalkote	356	3 15 0
Conjeevaram	197	2 8 0
Salem	164	2 2 0
Bombay to—		
Gadag	490	4 13 0
Hubli	453	4 10 0
Belgaum	365	4 6 0
Bagalkote	408	4 3 0
Tuticorn to—		
Salem	320	3 5 0
Conjeevaram	205	1 12 0

41. The sale price of Mysore silk in markets outside Mysore cannot be compared with price for silk in Bangalore market as the silk that is exported from Bangalore, etc., is got re-reeled and twisted in the outside weaving centres where they are sold and the charges of these operations are added to the original price of the silk. Deducting these charges there is no appreciable difference between the net prices.

42. The charka silk which forms the bulk of silk produced in the State is not graded according to scientific methods. The silk koties determine the quality by examining for uniformity, cleanness, colour, lustre, broken ends, nerve, etc. The high grade silks, *viz.*, filature and Mysore domestic unit basin silks are examined by means of instruments. Charka silk admits of improvement, and it can be graded when reeling is improved. Systematic improvement in grading can be effected on the establishment of a standard of quality based on accurate tests. The silk Association is working towards the establishment of a central conditioning house for this purpose. But progress is greatly hampered by the present critical condition of the industry.

43. The prices as published by the Chamber of Commerce and those paid to reelers as ascertained by actual enquiry show no marked variations between them, though there may be some slight differences in respect of individual transactions. A statement showing the Chamber of Commerce figures as compared with the actual prices at which the various kinds of Mysore silk were sold in Bangalore during each month in the year 1932 is attached as Annexure A.

44. The silk merchants in Mysore do not directly import foreign silks from China or Japan. They get the foreign silks from importers in Bombay. The quantity of foreign silk imported into Mysore State during each year from 1928-29 is given below :—

Year.	Quantity in lbs.
1928-29 (April to March)	19,875
1930-31	30,560
1931-32	36,500
1932-33 (April, 1932, to end of September, 1932)	97,360

It will be seen from the above that the quantity of foreign silk imported into the State has been steadily increasing from 1928-29 and that the imports during the 6 months alone ending September 1932 have shown a phenomenal increase being nearly $2\frac{1}{2}$ times that of all the 12 months of the previous year. That this phenomenal increase has been due to the great fall in the price of the imported (mostly Chinese) silk will be evident from the subjoined comparative statement of the prices of Mysore and Chinese silk during the past 5 years.

Statement showing the difference between Canton (Foreign) and Mysore silk during the past five years.

BANGALORE RATES.

No.	In the year.	VARIETIES.			PURE MYSORE.	
		Canton (lbs.)	Duppion (lbs.)	Dance (lbs.)	1st quality (lbs.)	2nd quality (lbs.)
		Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1	1927-28 .	9 12	6 9	..	9 8	8 6
2	1928-29 .	7 0	6 9	5 14	8 10	7 12
3	1929-30 .	6 8	5 8	6 2	8 2	7 5
4	1930-31 .	6 2	4 14	5 4	6 9	5 10
5	1931-32 .	4 14	4 6	5 10	5 7	4 11

45. Canton steam flature and Duppion silks are the chief foreign silks which compete with the local silk in the State. It is not known how the above are classified in the Indian Customs Tariff.

46. Taking the Chinese Canton steam flature silk which is the foreign raw silk which is the most used in this State, it is sold in the Bangalore market at about Rs. 4-11 per lb. If from this be deducted freight, insurance handling and other charges from Bombay at about 5 per cent. and the import duty at 25 per cent. now being levied thereon, the tariff valuation of the silk would come to about Rs. 3-9 per lb. at Bombay. Deducting from this, the freight transshipment and other charges from Canton to Bombay at about 6 annas per lb. the value at place of shipment will approximately be about Rs. 3-3 per lb. Taking 25 per cent. of this to represent reeling and other charges incidental to the manufacture of the silk and the remaining 75 per cent. as the price of the cocoons, it is found that the latter (price of cocoons) works out to about Rs. 2-6 for the quantity of cocoon required to produce one lb. of silk. As about 15 lbs. of cocoons are required to produce a lb. of silk in South China this gives a rate of about $2\frac{1}{2}$ annas per lb. of cocoons. The price of cocoons in Mysore is now about five annas per lb. so that the South China Cocoons (which are there used for Canton silk) cost as per above computation only about half of those of Mysore Cocoons. Though we have no authoritative information regarding the actual cost of production of cocoons in South China yet in view of the fact that the labour, agricultural and other conditions in China do not seem to be superior to those in Mysore, it is impossible to conceive that the cocoons in South China could be produced at the above mentioned price; and one cannot help arriving at the conclusion that the flatures in South China are selling their silk below actual cost. To what extent the low prices charged by the Canton flatures are due to their desire to capture the Indian market and kill the Indian industry by dumping their goods even at a loss or, are due to special concessions and facilities in the nature of subsidies, bounties, etc., granted by the Government of the country, it is not possible to say. But there appears to be no doubt that the Canton silk is, as already stated, sold at much less than the cost price.

What has been said above in respect of Canton silk—which is the greatest competitor to the Mysore silk—may be considered applicable to a large extent to other foreign silks also imported into India.

47. In respect of natural quality, the Mysore silk does not suffer in comparison with the Canton silk. Both have nearly the same colour. The Mysore silk has however more elasticity, tenacity, nerve and lustre, while the Canton steam filature silk being better reeled has better winding qualities. The low price charged for the imported silk is not due to any marked difference in quality but is due to other causes mentioned in answer to question 46. Owing to the great disparity in their prices, the weaver naturally prefers to purchase the cheaper foreign silk instead of the local silk which costs more.

48. There can be no doubt that besides the causes mentioned against question 46, the continued depreciation of Chinese and Japanese currencies with regard to silver has also been important factor in bringing down the rupee value of Chinese and Japanese silks. The subjoined statement shows the exchange value of the rupee in terms of the local (Chinese and Japanese coins) on the 1st January for each year from 1929 :—

	CHINA.		JAPAN.
	Hongkong Dollars.	Shanghai Taels.	Yokohama yens.
January, 1929 . . .	1.88	1.76	1.25
January, 1930 . . .	1.18	1.87	1.84
January, 1931 . . .	.73	.97	1.38
December, 1932 . . .	.90	1.17	.81

It will be seen from the above that the rupee value of the Chinese and Japanese currency has fallen by more than 80 per cent. since 1929, resulting in a corresponding reduction in the rupee value of all the articles produced in these countries. The imports of Chinese and foreign silks have been increasing in response to the depreciation of their currencies with occasional set back due to political or other troubles in these countries; and so long as the depreciation continues, the increases in the imports are also bound to continue to the prejudice of local products unless suitable measures are adopted to counteract this tendency.

49. No silk-waste is imported into India.

50. Investigations were made for installing a silk-waste plant in the State; but the project had to be dropped owing to its high cost and the risks due to depression in the silk trade. It is understood that a capital of 7 lakhs may be required for installing a factory capable of dealing with the total quantity of waste produced in Mysore, about 5 lakhs for plant and machinery and buildings, etc., and 2 lakhs for working capital.

51 & 52. The general world depression in agriculture and trade must no doubt have affected the silk industry also to some extent. But the present serious situation in regard to this industry in India is attributable not so much to the world factors as to the country being flooded by Chinese and Japanese silks at prices at which it is found impossible for the local silk to compete. The world factors have, however, tended to accentuate and greatly increase the importation of Chinese silk into India. China, having within the last 2 years been almost ousted by Japan from the American Silk Market, has been concentrating on India and increasing the import of its silk into India at a rate which unless checked in time by a suitable protective tariff will spell absolute ruin and disaster to the Indian Silk Industry.

53. It is difficult to say how long the causes of the present decline will continue to operate. But one thing seems certain, and that is that unless their operation is promptly checked, the industry in India may die out beyond any hope of revival.

54. Mysore has not been exporting silk or cocoons to countries outside India. The decline in the export of silk waste is evidently due to the general trade depression in foreign countries.

55. Yes. The present revenue duty on silk is quite inadequate and unsuited to present conditions and should therefore be replaced by a protective duty sufficiently high to serve the required purpose.

56. The answer to this question is a decided affirmative, for India has been producing nearly a half of the total quantity of silk consumed in the country; and of this Mysore contributes nearly 50 per cent. This State has all the natural advantages for the expansion of the industry in respect of climate, cheap power and labour and a large market for its produce. There is inherited skill among the people of the State in the cultivation of mulberry and the rearing of silk-worms. The Government of the State are in a position to make electric power available at easy rates to persons who wish to use it for their cottage industries. They have also been earnest in the introduction of improved methods of mulberry cultivation, rearing and reeling.

Notwithstanding these facilities and attempts at improvement, it is impossible for the industry to make headway under present conditions, against the ruinous competition to which it is subjected. With suitable protection for some time, there is every hope that sufficient advance will be made with the industry so as to enable it to successfully stand competition with other countries.

57. If the protection asked for is to be effective, it should be such as to raise the price of China silk in the Mysore market to the level of at least the actual cost price of the re-reeled Mysore silk, or Mysore domestic basin silk. Hence on the basis of the present tariff value of the Chinese and other foreign silks and the other figures given against question 46 above, a protective duty of at least 100 per cent.—instead of the present revenue duty of 25 per cent.—will be necessary for effective protection of the industry.

(b) This increased duty may be fixed for a period of 15 years by which time, every effort should be made to improve the industry so as to withstand outside competition. A shorter period may not suffice in view of the enormous amount of work to be done to carry home to the people, most of whom are poor and illiterate, improved methods of carrying on the industry and educate them in such methods.

58. The result of imposing a protective duty on raw silk as proposed will be to raise the price of all silk and silk goods in India. If the duty is to be effective and achieve the purpose for which it is intended, it is quite necessary that it should be accompanied by a corresponding higher duty on the silk manufacturers and fabrics also coming into the country from outside, as otherwise the country will be flooded with these goods from outside at a price at which it will be impossible for the local weavers to produce them with the local silk and the local silk will therefore go without any demand therefor.

The silk weaving industry in India is capable of producing almost all the finished articles which are now imported from outside.

India imports at present about 20 million yards of silk fabrics, chiefly from China and Japan representing a value of 1½ crores of rupees. A good portion of this consists of crepes, georgettes, taffetas and satins, which were not being manufactured in India. Of late, however the Mysore Government have started a factory for the manufacture of these fabrics. Even within the short time that the factory has been working it has been able to produce fabrics of a quality which can well stand comparison with the foreign goods and at prices which given a fair chance over the industry will in course of time be able to successfully defy all competition. The establishment of a few such factories in India will completely do away with the need for the import of these fabrics into India from foreign countries.

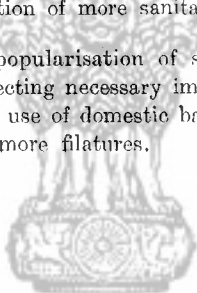
The recent fall in the price of silk and consequently of silk goods has naturally resulted in an increased demand for these goods manufactured by local weavers and consequent increase in the number of silk looms. It is estimated that in the Mysore State alone these looms have increased in number from 6,000 to 8,000 during the past few years. But it has been ascertained on investigation that this increase has been secured by the conversion of many of the cotton looms into silk looms—as evidenced by the fact that the total number of looms, both cotton and silk has remained almost the same. It may therefore be safely presumed that any reduction that may be caused in the

number of silk looms by raising the value of silk goods will be made up by an increase to the old figure in the number of cotton looms—the silk weaver with his easy adaptibility and capacity for adjustment being able generally to work as well on the cotton loom as on silk loom. In these circumstances there need be no apprehension that the handloom industry will be materially affected by the increase in the value of silk consequent on the imposition of the proposed protective tariff against foreign silk.

59. The charges for twisting silk vary from Re. 1-4 to Rs. 2-8 per lb. according to the nature of the twisted silk required. The proportion of the cost of twisted silk to that of raw silk will thus depend both on the value of the raw silk and on the nature of the twisted silk required and it cannot therefore be mentioned definitely. As regards silk piecegoods, about 50 per cent. of their value may be taken to represent the cost of raw silk and the remaining 50 per cent. the manufacturing and other charges.

60. Given adequate protection for a sufficiently long period as suggested in paragraph (b) of question 57 above, it is hoped that it should be possible to reduce the cost of production of raw silk in the country by about 40 to 50 per cent. by effecting improvements resulting in appreciable savings—at every stage of the industry as follows :—

- (a) *Mulberry cultivation*.—Improvements along the lines mentioned in answer to question 12 above.
- (b) *Cocoon rearing*.—(i) minimising loss of crops by use of disease-free layings and adoption of more sanitary and improved methods and appliances;
- (ii) Introduction and popularisation of superior breeds of worms.
- (c) *Reeling*.—(i) By effecting necessary improvements in the charkas;
- (ii) By popularising the use of domestic basins;
- (iii) Establishment of more filatures.



सत्यमेव जयते

ANNEXURE TO QUESTION 43.
Prices of Mysore silk for the year 1932 as published by the Mysore Chamber of Commerce and at which they were actually sold in the Bangalore Market.

Months.	KEMPANAHALLI.		SIDLAGHATTA.		CLOSEPET.		CHICKBALAPUR.		CHANNARAFAVA.	
	Chamber's.		Chamber's.		Chamber's.		Chamber's.		Chamber's.	
	2	Actual.	4	Actual.	6	Actual.	8	Actual.	10	Actual.
1	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
1932.										
January	7 5 0	7 7 0	7 14 0	7 8 0	7 2 0	6 12 0	7 0 0	7 2 0	6 12 0	7 5 0
February	7 8 0	7 11 0	7 14 0	8 0 0	7 5 0	6 15 0	7 5 0	7 5 0	6 12 0	7 8 0
March	7 8 0	7 11 0	7 14 0	8 1 0	7 8 0	6 15 0	7 5 0	7 5 0	6 12 0	7 11 0
April	7 2 0	7 2 0	7 5 0	7 4 0	6 15 0	6 3 0	6 15 0	6 12 0	6 12 0	6 12 0
May	6 0 0	6 3 0	6 6 0	6 8 0	5 10 0	4 14 0	5 7 0	5 9 0	5 7 0	5 9 0
June	5 10 0	6 0 0	6 0 0	6 6 0	5 4 0	4 8 0	5 4 0	5 4 0	4 11 0	5 7 0
July	6 0 0	5 13 0	5 13 0	6 0 0	5 4 0	4 9 0	5 4 0	5 4 0	4 11 0	5 4 0
August	5 10 0	5 13 0	5 13 0	6 3 0	5 4 0	4 9 0	5 4 0	5 6 0	4 11 0	5 7 0
September	5 13 0	5 10 0	6 0 0	6 2 0	5 7 0	4 14 0	5 7 0	5 6 0	4 14 0	5 7 0
October	5 10 0	5 10 0	6 0 0	6 0 0	5 4 0	4 13 0	5 4 0	5 4 0	4 14 0	5 7 0
November	5 10 0	5 9 0	6 0 0	5 13 0	5 7 0	4 11 0	5 5 0	5 6 0	4 14 0	5 7 0
December	5 7 0	5 9 0	5 13 0	5 13 0	5 4 0	4 9 0	5 4 0	5 4 0	4 14 0	5 7 0

Enclosure.

NOTE.

I. Information required by the President and Mr. Batheja with regard to the answer to question 11 of the Questionnaire:—

- (a) What is the income to the sericulturist from an acre of land cultivated with mulberry?
- (b) Cannot the same income be obtained from any other crop?
- (c) What is the minimum price of cocoon below which it will not be possible to carry on the industry?

Answer.—(a) As the mulberry grower is also generally the rearer of cocoons, his gross income from an acre of mulberry land cultivated by him is represented by the value of the cocoons reared with the leaf grown thereon. It has been stated in answer to question 10 that under the most favourable conditions, the yield of mulberry leaves per acre is about 6,000 lbs. for rainfed dry lands and 8,000 to 10,000 lbs. for irrigated lands (8,000 for tank irrigated and 10,000 for well irrigated land). As about 16 lbs. of leaf are required for producing one lb. of cocoon, the yield per acre in terms of cocoon will be 375 lbs. for dry land, 500 lbs. for tank irrigated land and 625 lbs. for well irrigated land. If cocoons were to sell at $9\frac{1}{2}$ annas per lb. as it did in the year 1926-27 prior to the decline in prices, the money value of the cocoons will be Rs. 222, 296 and 370 respectively for the several classes of lands mentioned above. This will however be the maximum income per acre obtaining under the most favourable seasonal conditions at the cocoon price mentioned above. The actual income will depend on seasonal rainfall and water-supply and the incidence of disease among worms; and it may be taken on the average at about 75 per cent. of the above figures, i.e., at Rs. 166, 222, and 278 per acre for rainfed, tank-irrigated and well-irrigated lands respectively. It is not possible to apportion the above income between the value of the mulberry leaves and the cost of rearing the cocoons, as both operations are practised by the same family and the value of the mulberry leaves alone cannot be determined since there is no defined, steady and separate market for it.

(b) If the income (which may be called direct) from the cultivation of the mulberry and that (which may be called indirect) obtained by the rearing of the cocoons be taken together, as it has to be done for reasons mentioned above, it may be safely said that there is no other crop that will yield the same income, in proportion to the amount of money, labour and trouble spent on its cultivation. Further—and this is also a point on which stress deserves to be laid—the abandonment of mulberry cultivation will not only deprive the agriculturist of a very paying crop but will also result in killing the industry which makes a substantial contribution to the wealth of the country and gives occupation not only to the agriculturist but also to many thousands of others engaged in reeling, spinning and weaving and other operations.

(c) As will be seen from the answer to question 10 of the questionnaire, the average expenses of mulberry cultivation per acre for each class of land has been stated to be as follows:—

1. Dry rainfed land Rs. 63-4.
2. Tank-irrigated land Rs. 86.
3. Deep well-irrigated Rs. 144.

Adding to the above figures the proportionate annual share of the initial outlay (as represented by the total initial outlay per acre divided by the number of years for which the plants will last—which is 8 years for dry lands and 15 to 20 years for irrigated lands), the total cost of cultivation of the several classes of land will be:—

1. Dry land—Rs. 63-4 plus $73-4-0/8$ = Rs. 72 nearly.
2. Tank-irrigated—Rs. 86 plus $108-0-0/15$ = 93 nearly.
3. Well-irrigated—Rs. 142 plus $165-0-0/20$ = 150 nearly.

Local silks and Foreign Silks which have displaced them.

1. (a) Kempanahalli } Canton Filature.
 (b) Mamballi } 20/22 deniers, No. 1-a, No. 2-b.
 (c) Mamballi } 28/32 deniers, No. 1-c, No. 2-d.
 (d) Closepet }
 (e) Thimmasandra }
2. (a) Sidlaghatta }
 (b) Sidlaghatta } Tsatlers, No. 2-a.
 (c) Vadigenahalli }
 (d) Vadigenahalli }
 (e) Kyalanur }
 (f) Chickballapur }
3. (a) Vitalpur Dance-Doupion, No. 3-a.
 (b) Hindignal Fanchow, No. 3-b.
4. (a) Channapatna Grey Hound, No. 4-a.
5. (a) Honnur Bat Wheel & Photochop, No. 5-a.
 (b) Agrahar Mayo Yellow, No. 5-b.
6. (a) Italian Basin Silk—20/24 deniers.
 (b) Domestic Basin Silk—28/30 deniers.
7. (a) Cashmir White—28/30 deniers.
 (b) Kashmir Yellow—13/15 deniers.
 (c) Kashmir Yellow—20/24 deniers.
 (d) Kashmir Yellow—28/32 deniers.
 (e) Kashmir Yellow—90/110 deniers.
8. (a) Jangipur Yellow—13/15 deniers.
 (b) Jangipur Yellow—20/22 deniers.

(3) *Letter dated the 25th March, 1933, from the Mysore Silk Association, Bangalore City.*

As required by the President, Indian Tariff Board, I enclose herein six copies of telegram from Bombay regarding *ex-duty* prices of foreign silk in Bombay on 24th March 1933.

Enclosure.

Copy of telegram dated the 24th March, 1933, from Bombay.

“*Ex-duty prices:—Yellow—Shanghai Minchew Filature superior four half, ordinary three half, Kubin re-reeled four one, Minchaw re-reeled Minyang re-reeled three half, inferior re-reeled three one. Minchew two half, Kubin two seven, Shantung two three and Singchaw two ten, Laimnyang one fifteen, Hoyung two ten (stop). White—Shanghai Fanchaw two nine, Kakadia two thirteen, Tsatlee re-reeled three ten (stop). Dupion Filature two thirteen, dupion one eleven (stop). White, other kinds—Canton Filature three fifteen, Mahang two nine, Yellow, other kinds—Kath three thirteen.*”

(4) *Letter No. 85/enclo., dated the 28th March, 1933, from the Mysore Silk Association, Bangalore.*

I have the honour to enclose herewith a note on the points in respect of which information was required by the president and members of the Tariff Board during the course of the examination of myself and the Secretary of this Association by the Board on Wednesday, the 22nd instant.

To arrive at the cost of the cocoons, we must add to the above figures, not only the actual money spent on rearing operations, but also the value of the time, labour and trouble involved. It is very difficult to get an exact money value on the latter. But speaking from experience, it may be said that the rearing operations will not be considered paying and worth undertaking unless a sum of Rs. 80 to 100 can be obtained by a family for the rearing of cocoons from the leaf grown on each acre. On this basis the cost of the production of cocoons in respect of each class of land will work out as follows:—

- (1) Per acre of rainfed land—Rs. 72 plus Rs. 80=152 for an average production of 280 lbs. (*vide para. above*), giving about As. 8-8 per lb.
- (2) Per acre of tank-irrigated land—Rs. 93 plus Rs. 90=183 for 375 lbs. giving about As. 7-9 per lb.
- (3) Per acre of well-irrigated land—Rs. 150 plus Rs. 100=250 for 470 lbs. giving about As. 8-6 per lb.

It will be seen from the above, that if the cocoon rearer is to get a fair and reasonable return for the money, time and labour expended by him on the growing of mulberry as well as the rearing of the cocoons, he should realise at least 8 annas a lb. for the cocoon. If the price falls below this limit, he will find the occupation unremunerative and may have to give it up. The rate of 5 annas per lb. to which the price of cocoon had recently come down was just sufficient to cover his cultivation expenses alone and left him very little margin to compensate him for the time and trouble expended by him over the rearing operations. If nevertheless, he had been sticking to the business till now, at considerable sacrifice and without getting an adequate return for the personal labour of himself and his family, it was by force of habit and in the expectation and hope that times may improve; and also because the rooting up of the mulberry plant for growing some other crop will entail appreciable expenditure and moreover when once the mulberry garden is destroyed it would require a heavy outlay to plant it up again when conditions become favourable. This state of affairs cannot however be expected to last indefinitely. The further continuance of the present low level of prices is bound to result in a rapid—contraction of the mulberry cultivation and consequent extinction of the industry.

II. As desired by the President, extracts from the proceedings of the Executive Committee of the Silk Association in connection with the proposals of Government to raise the prices of the disease free layings supplied by Government to sericulturists are given below:—

(i) *Extract from proceedings of the Executive Committee meeting held on 16th March 1929.*

* * * * *

7. Letter No. 4342 of 11th March 1929 from the Superintendent of Sericulture in Mysore, Mysore, requesting the opinion of the Association regarding the raising of the sale price of Mysore layings from Re. 1 to Re. 1-2 per 100 layings was read; and it was resolved that the Superintendent be informed that the Committee are not in favour of increasing the rate of Mysore layings for the time being as the sale price of cross-breed layings has been recently raised.

* * * * *

(ii) *Extract from proceedings of the Executive Committee meeting held on 4th August 1932.*

* * * * *

VII. Subject sent up by Mr. Syed Allah Baksh;

“That in view of urgent need of popularising the disease free layings to a larger extent, the Government be requested to reduce the price of

cross-breed layings from Re. 1-8 to Re. 1 per hundred, and of that of Mysore layings from Re. 1 to As. 12 per hundred."

The proposal was approved and it was resolved that Government be addressed accordingly.

III. Information required by the President regarding the action taken by the Association in the matter of standardising weights and measures:—

(1) At the meeting of the Executive Committee of the Association held on 10th March 1930, the following resolution was passed:—

11. Consideration of the resolutions passed at the Chintamani Conference.

(ii) That the unit of weight of cocoons and silk in the various parts of the Mysore State be standardised:

"Resolved that the Government be requested to standardise the unit of weight of cocoons and silk in the Mysore State."

(2) The subject was again discussed at the meeting of the Executive Committee held on 28th May 1932 and the following resolution was recorded:—

13. Subject proposed by Mr. Syed Allah Baksh:

That the Director of Industries and Commerce be requested to intimate whether any steps have been taken to introduce a uniform system of weights for cocoons and also for raw silk:

The Director of Industries and Commerce stated that action had been taken to enforce a uniform system of weights and measures and that it was being observed in Bangalore. He suggested that if the rule was not being observed in all places, action will be taken to enforce it in such places as may be necessary. It was resolved that the Department of Industries and Commerce be requested to enforce the introduction of a uniform system of weights and measures in all important sericultural places like Chickballapur, Chennapatna, etc.

(3) The Director of Industries who was addressed in accordance with the above resolution, sent a reply dated the 30th June, 1932, to the following effect:—

"With reference to your letter No. 583, dated 22nd June, 1932, regarding the introduction of the uniform system of weights and measures in all important sericultural places, I write to state that Chennapatna, Kolar and Chickballapur have already been notified by Government and the compulsory use of only certified weights and measures will be enforced in these towns, as soon as the appointment of testers is sanctioned by Government."

IV. Information required by the President regarding prices in Bombay (or Bangalore) of all kinds of foreign silk included in the Tariff Classification:—

This information has been already furnished by the Secretary of the Association.

V. Information required by the President regarding consumption of electric power in the Government filature and the charges paid therefor:—

Government Filature at Mysore: For 12 basins—Monthly consumption is 200 units at 1½ annas per unit.

(Electric power is used only for driving the machinery. Heating is done by steam.)

VI. Information required by the President regarding the proportion of Japanese dupion coming into the market as compared with Chinese dupion and their comparative prices:—

This information is not available.

VII. Information required by Mr. Batheja regarding the members of the Association:—

The total number of members of the Association classified under the several heads is given below:—

(1) Sericulturists (rearers and reelers)	81
(Information cannot be obtained from the office registers as to how many of these are rearers and how many are reelers.)	
(2) Domestic Basin Owners	10
(3) Village Panchayets	5
(4) Silk Weavers and Merchants	22
(5) Others (officials and non-officials interested in the industry)	43
Total	<u>161</u>

VIII. Information required by Mr. Batheja regarding rates of agricultural and industrial wages every year during the past 10 years:—

It has not been found possible to obtain any reliable and authentic information in this respect.

Raw Silk Merchants' Association, Bangalore.

Letter dated the 2nd February, 1933.

I am desired by the Committee of the Raw Silk Merchants' Association, Avenue Road, Bangalore City, to submit herewith six copies of the replies to the several questionnaire as well as to the special questionnaire issued by the Tariff Board in connection with the present enquiry into the sericultural industry in India.

A note showing the objects of our association is also submitted herewith

Enclosure No. 1.

REPLIES TO QUESTIONNAIRE FOR IMPORTS AND TRADERS.

1. The competition is keenest from South China, Central China and to some extent from Japan. Gadag, Hubli, Belgaum, Bagalkote, Surat, Benares, Canjeevaram, Salem and Coimbatore, Kumbakonam, Thiruvattapuram, Hyderabad State, Hospet, Bellary, Gudiyatham are some of the silk markets where the competition of foreign silk is keenest. Superior grades of Mysore silk such as Kempanahalli, Sidlaghatta, Chikballapur, Closepet, Mamballi, have been ousted by Canton Steam Filatures and Tsatlee; Dupion and Fanchodo, Mincheoo silks have displaced coarser silks of Mysore such as Chennapatna, Aghahara, Vittlapur, etc., in some of the above markets.

2. We have no information regarding the prices at which the principal classes of the imported silks, now enter India. The enclosed statement gives information regarding the rates at which the silks were sold at Bombay.

3. A statement showing the rates at which Mysore silks have been sold is enclosed.

4. The present sale price of Canton silk 20/22 denier is about Rs. 4.11 per lb. in Bangalore, whereas Kempanahalli and Sidlaghatta with which Canton filature silk competes are sold at Rs. 6 per lb. Our silk cannot be

sold cheaper as the reeler suffers losses even at this rate. But the quantity of the latter sold is comparatively small and purchasers have cleared this for special requirements.

5. The railway freight from Bombay to Gadag, Hubli and Belgaum and the railway freight from Tuticorin to Salem, Canjeevaram, Trichinopoly, Kumbakonam is about the same as the railway freight to the above places from Bangalore.

Freight for
75 lbs.
Rs. A. P.

Bangalore to—		
Gadag	299 miles	3 8 0
	One bundle.	
Hubli	292	3 3 0
Belgaum	380	3 15 0
Bagalkote	356	3 15 0
Canjeevaram	197	2 8 0
Salem	164	2 2 0
Bombay to—		
Gadag	490	4 13 0
Hubli	453	4 10 0
Belgaum	424	4 6 0
Bagalkote	408	4 3 0

Tuticorin to Salem.

Tuticorin to Canjeevaram.

Canjeevaram to Madras.

6. Yes. We suppose so. A large quantity of Canton Steam Filature silk is being sold in Bangalore market. The price is Rs. 4-11 per lb. at present. We import this silk from Bombay brokers. The freight, postage, handling charges and brokerage is two annas per lb. Deducting this and also our sale charges the actual price at Bombay would be Rs. 4-9 a lb. Deducting the duty at the rate of 25 per cent. the value comes to Rs. 3-10-6. We are not aware of the actual shipping charges from Hongkong to Bombay and handling charges at Bombay, freight from Hongkong to Bombay transshipment at Canton, handling and mercantile charges at Canton and other incidental charges, but it would not be unreasonable to assume that a pound of silk would cost on the above items about six annas. The actual cost per lb. at which Canton merchants would have cleared the goods must be Rs. 3-4-6 per lb. Deducting manufacturing charges of 25 per cent., the raw material namely, the cocoons to produce one pound of silk would cost Rs. 2-7. Generally, it is understood that South China cocoons are comparatively poor in their silk content and about 15 lbs. of cocoons are required to produce 1 lb. of silk. This gives As. 2-9 pies per lb. of cocoons which about half the cost at which cocoons are being produced in Mysore. It is impossible to explain or to understand as to how the prices of cocoons would be so low except by supposing that the whole industry in South China must be strongly subsidised by Government so as to cover the losses sustained by the reelers. The sericultural conditions in South China are in essentials the same as that of our state. Therefore it becomes apparent that the cost of production in South China must be certainly higher than that of the selling prices. The sample silks will be submitted when the Board visits Bangalore.

7. The Chinese silk is inferior in natural qualities such as elasticity, tenacity and lustre. The colour of Canton Raw silk that comes to Bangalore is almost the same as that of Mysore silk. The Chinese silk is easily handled during re-reeling and twisting processes. The loss in bleaching is also less. In practice, the difference in the natural qualities does not play any important part in determining the sale prices of raw silk.

8. We are not aware of the differences.

9. No.

10. It is difficult to estimate the probable trend of the price of raw silk during the next few years in this unsettled condition of the silk industry. But it is certain that the present prices are abnormal, since they almost certainly below costs of production. How long this State continues would depend upon the conditions in China and Japan with which we are not at present thoroughly acquainted.

11. As we are not directly importing foreign silks, we cannot answer definitely, but we learn that the superior foreign silks are not paying as much duty as they ought to pay.

12. Canton Filature, 20/22, 28/32, 32/36 and Dupion 40/60 Tsatlee 20/24. Generally shirting, coating, crepes and Georgettes which are being used as substitutes for sarees.

13. We learn that Government in foreign countries have been providing facilities for the export of silk. The importers in India are given three months time for payment. All these assist the foreign silk to compete with our silks.

14. The competition of the imported silk with the Indian silk is due to its cheapness and we do not think that it is due to the attention paid by the exporters to the requirements of consumers in regard to matters of quality, finish and packing.

15. Recently there has been a great change for worse—so far as quality of the silk imported is concerned. The colour is not the same as it was before. There is great variation in the size of silk mentioned in the invoice and the silk supplied actually. There are a number of major defects such as waste, knibs, etc., in the silk, that is, the silk is not clean. In fact China depends upon cheapness and not on quality and this in turn is having deteriorious effect on our weaving.

16. No. The importers do not generally sell direct to weavers; but they sell through retailers or brokers.

17. The consumers naturally prefer cheaper goods and for cheapness quality is being sacrificed. The products of Indian looms which are foreign silk are appreciably inferior to these of looms which specialise in Indian silk.

18. High grade Dharmavaram and Arlepet Sarees are being ousted by foreign crepes and Georgettes and Canjeevaram and other cheap saries are made with cheap silks. There are evidences of this substitution along the whole line of silk goods.

Enclosure No. 2.

REPLIES TO QUESTIONNAIRE REGARDING SERICULTURAL INDUSTRY.

2. There are about 36 koties in the City of Bangalore. They are all mainly concerned in the selling of raw silk mostly on Commission basis. They generally get the silk produced in the Mysore State by means of country charkas on a large scale.

(a) The above firms are managed by owners along with their partners with their own capital.

(b) At times they borrow money from the local bankers at the rate of 12 per cent. and invest the amount in the business. Whenever there is good demand they clear the stock and settle the accounts both with bankers and the reelers.

(c) The reelers who bring raw silk produced by them to the koties keep the silk in stock and receive an advance of about 70 to 80 per cent. of the value of stock from the koties. Interest at 12 per cent. is charged on such advances by the koty people.

(d) Formerly when there was a brisk market for the local silk the silk was sold then and there only and there was a good turn over; and the koti merchants were advancing funds to the reelers without any sort of securities in anticipation of further supply of raw silk. There used to be keen competition in effecting sales and interest also was not being charged on the advances made.

(e) Generally the purchasers were coming to Bangalore from outside namely, Salem, Canjeevaram, Coimbatore on the Southern sides and Gadag, Hubli, Belgaum, Balgalkote, etc., from the Northern side and were buying silks in Bangalore. At times they were placing orders from their places with us for the silk and we were sending the same by railway parcels at prevailing rates. The silk that was supplied to the outsiders as well as to the local weaving classes was charged a commission of one anna per seer of 26½ tolas. The silk reelers were also charged commission as above.

Now the outsiders are not at all coming either in person nor are they placing orders for silk owing to the keen competition of the foreign silk. Even the local weaving classes here are also utilising the same foreign silk as it is cheaper than our local silk.

37. Our local silk is used in manufacturing saris, dhoties, upperclothes, turbans, gota, nakki and for gold thread also.

38. About 40 lakhs of pounds of raw silk is utilised in India annually out of which 20 lakhs of pounds of silk is produced locally and the rest is imported from outside India. Our Mysore State producers from about 10 to 12 lakhs of pounds of silk per year normally.

39. It is not possible to give exact figures regarding the quantity of raw silk (local) used here and used in other parts of India. Mysore silk is not exported out of India. From our experience, we may say that about 70 to 75 per cent. of the raw silk produced in Mysore was used in other parts of India.

40. For marketing methods please see answer to question 2. Generally our local silk is supplied on a large scale to Gadag, Hubli and Belgaum. Whenever our silk prices are favourable to our clients in above places, they do not mind about the railway freight even though it may be a bit more. The railway freight from Bombay to the above places and from Bangalore to the above places is almost the same.

In Southern sides such as Canjeevaram, Salem, people get the foreign silk on a large scale from Tuticorin.

41. The raw silk which is sent outside Mysore is not sold there as it is but it is re-reeled and twisted and then sold by adding twisting charges and wastage, etc. As such we cannot compare the rates.

42. There is no scientific method of testing and grading silk produced out of country charkas in Mysore State but we have got our own method of grading according to the colour, nicety, feel, uniformity, number of broken ends and other defects. If the reeling methods are improved in future we can improve the grading also according to standards. This grading is done in the case of domestic basin as well as filature silk.

43. There are no marked differences between the wholesale prices published by the Mysore Chamber of Commerce and the prices actually realised by the reelers. The Statements are attached.

44. (i) There are 10 or 12 koti merchants in Bangalore who deal with foreign silk which they get through Bombay merchants. The quantity imported to Bangalore is given in the annexure.

45. Dupion, (a) Dance, H. L., competes with Vittalpur, Hidignal.

Medium, (b) Grey Hound, Double cocoon, competes with Chennapatna.

Last Grade (c) Bat Wheel, competes with Agrahar and Honnur.

Tstelees (now no imports in Bangalore), competes with Sidlaghatta, Vadigenahalli and Chikballapur and Kyalanur.

Canton Steam Filatures, competes with Kempanahalli, Closepet, Thimmasandra, Mamballi.

46. A large quantity of Canton Steam Filature Silk is being sold in Bangalore market. The price is Rs. 4-11 per lb. at present. We import this silk from Bombay brokers. The freight, postage, handling charges and brokerage is two annas per lb. Deducting this and also our sale charges the actual price at Bombay would be Rs. 4-9 a lb. Deducting the duty at the rate of 25 per cent. the value comes to Rs. 3-10-6. We are not aware of the actual shipping charges from Hongkong to Bombay and handling charges at Bombay, freight from Hongkong to Bombay transshipment at Canton, handling and mercantile charges at Canton and other incidental charges, but it would not be unreasonable to assume that a pound of silk would cost on the above items about six annas. The actual cost per lb. at which Canton merchants would have cleared the goods must be Rs. 3-4-6 per lb. Deducting manufacturing charges of 25 per cent., the raw material namely the cocoons to produce one pound of silk would cost Rs. 2-7. Generally it is understood that South China cocoons are comparatively poor in their silk content and about 15 lbs. of cocoons are required to produce 1 lb. of silk. This gives As. 2-9 pies per lb. of cocoons which is about half the cost at which cocoons are being produced in Mysore. It is impossible to explain or to understand as to how the prices of cocoons would be so low except by supposing that the whole industry in South China must be strongly subsidised by government so as to cover the losses sustained by the reelers. The sericultural conditions in South China are in essentials the same as that of our state. Therefore it becomes apparent that the cost of production in South China must be certainly higher than that of the selling prices. The sample silks will be submitted when the Board visits Bangalore.

47. The Chinese silk is inferior in natural qualities such as elasticity, tenacity and lustre. The colour of Canton Raw silk that comes to Bangalore is almost the same as that of Mysore silk. The Chinese silk is easily handled during re-reeling and twisting processes. The loss in bleaching is also less. In practice, the difference in the natural qualities does not play any important part in determining the sale prices of raw silk.

48. We do not import silk directly from foreign countries. We import only from Bombay brokers. We get quotations every day from the Bombay brokers and if we find it favourable to our local market here, we place orders on a large scale. The quotations of Bombay market mainly depend upon the foreign exchange rates. Even if the silk rates in China remain the same, the increase in the value of the rupee helps China silks being sold at cheaper rates in India.

51. The local silk industry has completely gone down owing to importation of foreign silk on a large scale and at lower costs when compared with our local market.

The local cultivators here cannot get even their labour charges and their investments on silk productions on account of keen competition of foreign silk which are being imported on a large scale.

52. The nearest market to China is India where they can export their inferior silk at a low cost. As such the decline of the local silk industry is due to conditions special to India where the industry is not protected from unfair foreign competition.

53. The causes for the decline of the silk industry in India may be temporary at present and if no immediate steps are taken to ward off the causes they will in a short time kill our industry.

54. We have not been exporting silk or cocoons to foreign countries. We were exporting silk waste only but there is no demand for it at present.

55. As the present levy of revenue duty on raw silk is very low, our industry is seriously affected. The levy of tax must be increased on imported foreign silk.

56. (a) We have got every advantage.

(b) Without the help of protection our industry will be killed.

(c) If protection is given for a sufficient time, we will be able to face the world competition eventually.

57. (a) The China silks which we import are either re-reeled or filature reeled, hence they are better reeled. The cost of production of similar silks in Mysore at present amounts to about Rs. 7-14 per lb. The protection required is the amount sufficient to increase the price of China silk to this level.

(b) A cent per cent. *ad valorem* duty or a specific duty of Rs. 3 per lb., whichever is higher must be levied. The silks that are imported into Bangalore market are Canton Steam Filature and to a certain extent Dupion. India as a whole imports silk from Shanghai and Canton which come under the groups Dupion; white Shanghai, other kinds, white other kinds, yellow Shanghai and yellow other kinds as classified under the customs tariff. Canton Steam Filatures which are imported into Bangalore probably come under the group white other kinds. The tariff valuation per lb. of this silk is Rs. 3-4. If cent per cent. *ad valorem* duty is levied its Bangalore cost price per lb. would be Rs. 6-13 inclusive of five per cent. handling and other incidental charges. Again as an alternative if specific duty of Rs. 3 per lb. is levied its Bangalore price would be Rs. 6-9 per lb. The cost of production of similar Mysore silks cannot be anything less than Rs. 7 per lb. inclusive of re-reeling charges to equalise the quality of Mysore and imported silks. This consideration is enough to justify that the minimum asked for is reasonable.

(c) The protection is required for a period of at least twenty years. The rearing and reeling sides have to be organised and improved considerably in order to compete in the open market. As the rearers and reelers are illiterate, conservative and poor people living in the interior parts of the State, it will take at least twenty years to organise their activities.

58. We believe that the silk weaving industry in India will not in any way be adversely affected if protection is afforded to Indian silk provided the import duty for the fabrics is also sufficiently increased. In fact there is every possibility of increasing the production of high class silk fabrics such as Georgette, Crepe-de-chine, etc., in India alone using Indian silk. This will give an impetus to the silk weaving industry in India.

60. It is quite possible to reduce the cost of production by increasing the output of cocoons per acre without increasing the expenditure. The output of cocoons can be increased by using good seed, by growing better varieties of mulberry and by rearing higher and quicker yielding hybrid worms. By using good cocoons and cross-breed cocoons and by adopting improved methods of reeling, the cost of production of silk can be reduced to an extent of 15 to 20 per cent.

Enclosure No. 3.

THE RAW SILK MERCHANTS' ASSOCIATION, AVENUE ROAD, BANGALORE CITY.

Objects of the Association.

1. To secure co-operation among the silk merchants in Bangalore.
2. To guard the interests of the silk merchants in Bangalore.
3. To collect and disseminate information calculated to improve trade in raw silk.
4. To encourage the production of raw silk in the state.
5. To strive for the improvement in the quality of raw silk produced in the State so as to put the Mysore Silk on the same level as foreign high grade silks and to find wider markets for Mysore Silk.
6. To settle the disputes among the members by arbitration.
7. To take all possible steps to achieve the above objects.

The managing committee consists of 22 prominent silk merchants in Bangalore City.

The office bearers of the Association are as noted below:—

President.—Bysani Balanna Setty, Esq., c/o Messrs. B. Aswathanarayana Setti, Bysani-Balanna Setti & Co., Silk Merchants, Ballapurpet, Bangalore City.

Vice-President.—Y. H. Venkataramanappa, Esq., Silk Merchant, Avenue Road, Bangalore City.

Honorary Secretaries.—1. M. Sreekanta Setti, Esq., c/o M. Narasimhaiya Setti & Bros., Silk Merchants, Bangalore City.

2. R. Ahmad Khan, Esq., Silk Merchant, Avenue Road, Bangalore City.

Managing Secretary.—B. Viswanatha Gupta, Esq., c/o B. V. Gupta and M. Thimmaiya, Silk Koti, Avenue Road, Bangalore City.

ANNEXURE TO QUESTION NO. 43.

Price of Mysore Silk in Mysore from 1927-28 to end of December, 1932, as published by the Mysore Chamber of Commerce.

Month.	Kempanahalli.	Sidlaghatta.	Closepet.	Chikballapur.	Chennapatna.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1927-28.					
May . .	10 14	..	..	..	9 6
	11 10	..	..	..	9 10
June . .	10 14	..	..	..	9 6
	11 10	..	..	..	9 10
July . .	10 2	..	..	..	8 4
	10 8	..	..	..	9 6
August . .	10 2	..	..	..	8 10
	10 8	..	..	..	9 4
September . .	9 12	..	..	..	8 4
	10 2	..	..	..	9 0
October . .	9 6	..	..	..	8 4
	10 2	..	..	..	9 0
November . .	9 0	..	9 0	8 11	9 14
	9 15	..	9 3	8 14	8 10
December . .	9 12	..	9 4	9 0	8 10
	10 2	..	9 6	9 3	9 3
January . .	9 9	..	9 6	9 0	7 15
	9 15	..	9 12	9 3	8 14
February . .	9 3	..	9 0	8 10	7 12
	9 6	..	9 6	8 13	8 10
March . .	9 2	..	8 11	8 4	7 8
	9 3	..	8 13	8 7	8 6
April . .	8 10	..	8 1	8 0	8 0
	9 0	..	8 7	8 4	8 1
1928-29.					
May . .	8 13	..	8 0	8 4	6 12
	9 3	..	8 11	8 6	8 4
June . .	9 9	..	8 12	7 8	7 2
	9 12	..	9 0	8 10	8 7
July . .	9 3	..	8 13	8 4	6 12
	9 6	..	9 0	8 7	8 4
August . .	8 4	9 0	8 1	7 14	6 6
	8 10	9 3	8 7	8 1	7 11
September . .	8 7	8 4	8 1	7 14	6 3
	8 10	8 10	8 10	8 1	7 11

Price of Mysore Silk in Mysore from 1927-28 to end of December, 1932, as published by the Mysore Chamber of Commerce—contd.

Month.	Kempanahalli.	Sidlaghatta.	Closepet.	Chikballapur.	Chennapatna.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1928-29—contd.					
October . .	8 8 8 13	8 4 8 8	8 4 8 10	7 14 8 1	6 6 7 12
November . .	8 7 8 10	8 4 8 10	8 4 8 10	7 14 8 1	6 9 7 15
December . .	8 13 9 0	8 10 9 0	8 10 9 0	7 14 8 4	6 15 8 4
January . .	9 3 9 9	9 6 9 9	9 0 9 9	9 13 9 0	7 4 8 10
February . .	9 3 9 6	9 0 9 3	8 1 9 15	8 13 8 15	7 8 8 13
March . .	9 6 9 9	9 6 9 12	9 6 9 12	8 10 8 12	7 8 8 7
April . .	9 6 9 9	9 3 9 6	8 10 9 3	8 4 8 7	6 15 7 11
1929-30.					
May . .	9 0 9 6	9 0 9 6	8 7 9 3	8 4 8 7	6 15 7 14
June . .	8 10 9 0	8 10 9 0	8 7 9 0	8 1 8 4	6 15 7 8
July . .	8 4 8 8	8 7 8 14	8 4 8 13	8 1 8 5	6 10 7 8
August . .	7 14 8 14	8 4 9 3	8 2 8 10	7 15 8 4	6 7 7 9
September . .	7 14 8 7	8 7 9 0	7 15 8 7	7 14 8 1	6 6 7 8
October . .	7 14 8 4	8 4 8 10	7 14 8 4	7 14 8 0	6 4 7 2
November . .	8 1 8 4	8 7 8 10	7 11 8 1	7 12 7 15	6 4 7 0
December . .	8 5 8 10	8 7 8 13	8 3 8 7	7 15 8 4	6 9 7 14
January . .	7 14 8 4	8 4 8 10	7 14 8 4	7 12 8 1	6 6 6 8
February . .	7 11 8 1	8 1 8 7	7 14 8 2	7 11 7 14	6 6 7 5
March . .	7 14 8 4	8 4 8 10	7 15 8 4	7 11 7 14	6 0 7 2
April . .	7 14 8 4	8 1 8 7	8 1 8 5	7 9 8 1	6 3 7 2
1930-31.					
May . .	8 4 8 12	7 11 8 1	8 6 8 14	7 12 8 1	6 9 7 9
June . .	7 14 8 4	7 11 8 4	7 14 8 4	7 9 7 11	6 9 7 8
July . .	6 9 6 12	6 12 7 8	6 3 6 9	6 0 6 3	6 1 5 10
August . .	6 6 6 9	6 6 7 8	5 13 6 6	6 0 6 2	4 14 5 4
September . .	5 10 5 12	6 0 6 3	5 4 5 10	5 1 5 4	4 5 4 14
October . .	5 2 5 8	5 10 6 0	4 14 5 4	4 11 5 1	3 15 4 5
November . .	4 14 5 10	5 4 5 10	4 14 5 10	4 8 5 4	4 2 5 1

Price of Mysore Silk in Mysore from 1927-28 to end of December, 1932, as published by the Mysore Chamber of Commerce—concl'd.

Month.	Kempanahalli.	Sidlaghatta.	Closepet.	Chikballapur.	Chennapatna.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1930-31—contd.					
December .	6 6	6 9	6 3	5 10	5 4
	6 9	6 15	6 6	5 13	5 7
January .	6 9	6 12	6 6	5 10	5 10
	6 12	6 15	6 9	6 0	6 0
February .	6 9	6 12	6 6	5 10	5 10
	6 12	6 15	6 9	6 0	6 0
March .	6 0	6 0	5 13	5 13	4 14
	6 6	6 9	6 0	6 0	5 7
April .	6 0	6 0	8 13	5 10	4 14
	6 3	6 9	6 0	5 12	5 7
1931-32.					
May .	6 0	6 0	5 10	5 11	4 15
	6 3	6 6	5 12	5 13	5 4
June .	5 10	5 13	5 7	5 4	4 11
	6 0	6 3	5 13	5 7	5 4
July .	5 10	5 13	5 4	5 1	4 5
	5 13	6 0	5 7	5 4	4 11
August .	5 7	5 7	5 1	4 12	4 5
	5 9	5 10	5 5	4 14	4 11
September .	5 7	5 7	5 1	5 1	4 5
	5 9	5 10	5 4	5 2	4 11
October .	6 0	6 6	6 0	5 10	4 14
	6 6	6 9	6 3	5 14	5 1
November .	6 9	6 12	6 6	5 13	5 4
	6 12	6 15	6 9	6 3	5 10
December .	7 2	7 5	5 4	6 12	6 6
	7 5	7 8	5 7	6 15	6 12
January .	7 5	7 14	7 2	7 0	6 12
	7 8	8 1	7 5	7 2	7 2
February .	7 8	7 14	7 5	7 5	6 12
	7 11	8 1	7 8	7 8	7 2
March .	7 8	7 14	7 5	7 5	6 12
	7 11	8 1	7 8	7 8	7 2
April .	7 2	7 5	6 15	6 12	6 12
	7 5	7 8	7 2	6 15	7 2
1932-33.					
May .	6 0	6 6	5 10	5 7	5 7
	6 6	6 9	5 13	5 10	5 10
June .	5 10	6 0	5 4	5 4	4 11
	6 0	6 6	5 10	5 7	4 14
July .	6 10	5 13	5 4	5 4	4 11
	6 0	6 0	5 10	5 6	4 14
August .	5 10	5 13	5 4	5 4	4 11
	6 0	6 0	5 7	5 6	4 14
September .	5 13	6 0	5 7	5 7	4 14
	6 0	6 3	5 10	5 10	5 1
October .	5 10	6 0	5 4	5 4	4 14
	5 13	6 3	5 7	5 7	5 1
November .	5 10	6 0	5 7	5 5	4 14
	5 13	6 3	5 10	5 7	5 1
December .	5 7	5 13	5 4	5 4	4 14
	5 10	6 0	5 7	5 6	5 1

ANNEXURE TO QUESTION NO. 44.

Statement showing the prices of Canton and Dupion Steam Filature Silks per lb. in Bangalore.

Month.	1930.			1931.			1932.			1933.
	Canton.	Dupion.	Dance.	Canton.	Dupion.	Dance.	Canton.	Dupion.	Dance.	Canton.
1932-33— <i>contd.</i>	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.	RS. A.
January . . .	..	5 10	5 13	6 0	..	5 0	7 0	..	6 2	4 12
February . . .	8 10	..	5 11	6 2	4 15	5 0	7 8	..	6 5	..
March . . .	..	..	..	5 14	..	5 1	6 5	..	..	..
April . . .	..	6 0	..	6 5	..	5 4	5 12	6 0	6 4	..
May . . .	..	5 8	5 14	6 0	..	5 4	5 5	..	5 14	..
June . . .	6 8	..	6 2	6 2	..	5 4	4 14	4 6	5 10	..
July . . .	5 12	4 14	5 12	6 2	4 13	..	4 8	5 0	4 4	..
August . . .	6 0	4 12	5 4	6 6-6	..	..	4 15	..	4 4	..
September . . .	6 2	..	5 0	7 0	..	..	5 2	4 12	4 4	..
October . . .	6 0	..	4 14	7 4	..	..	5 3	..	4 4	..
November . . .	5 14	4 12	4 14	7 4	..	..	4 13	4 12	4 4	..
December . . .	5 12	4 14	4 14	7 14	..	6 4	5 1	4 10	4 4	..

Statement showing the Import of Foreign Silks into Bangalore by a few Silk Merchants.

	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33 (up to end of December 1932.)	TOTAL.
Canton steam filature . . . Lbs.	156	..	1,351½	6,665	19,315	44,264	71,751½
Shanghai . . . . .	..	16	17	..	..	..	33
Testles	368	..	..	..	..	154	522
Dupion	6,572	5,749	13,717	6,948	5,141	2,118	40,245
Kakidya	317½	..	..	..	..	..	317½
Kaiyung	27	..	..	..	..	..	27
Fanchow	8½	..	214	..	..	270	492½
TOTAL	7,449	5,765	15,299½	13,613	24,456	46,806	1,13,388½

Prices at which Mysore Silk was sold in Bangalore for the years 1931 and 1932.

No.	Names of villages.	Jan.	Feb.	Mar.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	1931.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1	Kempanahalli . . .	..	..	..	..	..	..	..	..	5 7	6 3	6 12	7 5
2	Chennapatna . . .	..	..	..	..	..	..	..	..	4 6	4 14	5 10	6 8
3	Closepet . . .	..	..	..	..	..	..	..	..	5 3	6 3	6 3	7 2
4	Sidlaghatta . . .	..	..	..	..	..	..	..	..	5 9	6 6	7 2	7 11
5	Chikballapur . . .	..	..	..	..	..	..	..	..	5 0	6 0	6 9	6 15
6	Kyalanur . . .	..	..	..	..	..	..	..	..	5 0	6 0	6 12	7 2
7	Nandi . . .	..	..	..	..	..	..	..	..	4 14	5 13	6 5	6 14
8	Agrahar . . .	..	..	..	..	..	..	..	..	3 15	4 11	5 3	5 13
9	Thimmasandra . . .	..	..	..	..	..	..	..	..	5 1	6 0	6 14	7 2
10	Mamballi . . .	..	..	..	..	..	..	..	..	5 1	{ 5 7 to 6 0 }	6 8	7 5
	1932.												
1	Kempanahalli . . .	7 7	7 11	7 14	7 2	6 3	6 0	5 13	5 13	5 10	5 10	5 9	5 9
2	Closepet . . .	7 5	7 8	7 11	6 12	5 9	5 7	5 4	5 7	5 7	5 7	5 7	5 7
3	Chennapatna . . .	6 12	6 15	6 15	6 3	4 14	4 8	4 9	4 9	4 14	4 13	4 11	4 9
4	Sidlaghatta . . .	7 8 to 7 14	8 0	8 1	7 4	6 8	6 6	6 0	6 3	4 2	6 0	5 13	5 13
5	Chikballapur . . .	7 2	7 5	7 5	6 12	5 9	5 4	5 4	5 6	5 6	5 4	5 6	5 4
6	Kyalanur . . .	7 4	7 8	7 7	6 15	5 9	5 4	5 6	5 6	5 4	5 4	5 6	5 4
7	Nandi . . .	7 2	7 4	7 4	6 12	5 7	5 3	5 2	5 3	5 4	5 4	5 1	5 1
8	Agrahar . . .	6 2	6 3	6 3	5 10	4 4	4 0	4 2	4 6	4 4	4 4	4 2	4 2
9	Thimmasandra . . .	7 2	7 8	7 8	6 12	5 12	5 10	5 1	5 6	5 7	5 7	5 6	5 6
10	Mamballi . . .	7 8	7 14	7 14	6 12	6 0	5 12	5 10	5 10	5 10	5 10	5 10	5 12

Industrial and Trades' Association, Benares.

(1) *Letter No. 7338/397-Ind., dated the 8th February, 1933, from the Director of Industries, United Provinces.*

With reference to your letter No. 60, dated the 23rd January, 1933, I have the honour to forward herewith a copy of the reply (with 6 spare copies) received from the Honorary Secretary, Industrial and Trades' Association, Benares, for your use. This department is not, however, responsible for the information supplied or the views expressed by the Association.

Enclosure.

ANSWER TO QUESTIONNAIRE FOR TRADER.

1. Competition is keenest for mulberry silk and organzine coming from China and Japan respectively.

2 & 3. Schedule of quantity and rates have already been submitted before.

7. Indian silks are superior in strength and lustre to the cheap Chinese product which is commanding the market but the reason why Indian silks are discarded even when sold at the same rate as the imported silk is, that imported silk is of uniform denier and reeled by machinery while Indian silk has no standard and gives much trouble in reeling. By no standard we mean that in one skein silks of various deniers are found. It is a very tedious job to reel the silk and remove the defects which takes both time and labour, hence weavers would not prefer the Indian silk unless there is much divergence in price.

8. We are not aware of the conditions outside India.

9. Certainly Indian manufacturer is at a great disadvantage as regards plants and machinery. In fact they are never cared for and are allowed to work in the same old way their fathers and grandfathers were doing and the result is obvious. The machine-made stuff has captured the market and now their job is not paying. It is now the duty of the State to send out people to study the methods of the competitors and take quick action in not only putting up high tariff wall but to organize the home industry on modern lines within the course of a few months.

12. The organzine mostly imported in Benares is prepared from raw silk 18/15 denier. We had begun using organzine made from best lotus brand Kashmir yarn when the rate of Japanese organzine was high, but now it is not paying to use Indian yarn.

Other questions can be answered by Bombay merchants who are direct importers.

16. For goods of standard quality the sale is quick and competition very healthy, because any merchant can easily import the same the margin of profit is only one or two annas per lb. Where there is no standard naturally the margin of profit is very great some times Re. 1 per lb. because the merchant can easily deceive the weavers who have no means of finding out at once whether the quality is superior or inferior. There is need of big reeling factories to be set up with State help at countries where the silks are produced. Marked bundles will get ready sale everywhere if they begin to supply goods at competitive rates.

The yarn merchants sell direct to weavers for cash and also on credit. For standard goods the divergence in the rates for cash and credit is very little as all weavers know the current rate of standard qualities and naturally they will not like to pay even for credit more than As. 4 per lb. when there is no standard they are at their mercy of the merchants.

(2) *Letter No. 7811/397-Ind., dated the 28th February, 1933, from the Director of Industries, United Provinces.*

With reference to your letter No. 51, dated January 30, 1932, addressed to Secretary to Government, United Provinces, Industries Department, Allahabad, I have the honour to forward herewith a copy of the reply (with six spare copies) of the handloom questionnaire received from Honorary Secretary, Industrial and Trades' Association, Benares, for your use. This department is not, however, responsible for the information supplied or the views expressed by the Association.

Enclosure.

ANSWER TO QUESTIONNAIRE FOR THE HANDLOOM INDUSTRY.

1. In our rough estimation there are about 25,000 to 30,000 looms in Benares and suburbs. Generally three workmen are required to work one

loom, but there are looms in which only one workman is employed. On the average about 80,000 workmen earn their livings in this industry.

Cotton weaving is done in very negligible quantity. There may be about one hundred looms only for making cheap safas (turbans), sarees, etc.

2. Artificial silk is not much used now-a-days. Spun silk is mostly woven in villages due to cheap wages and the yarn comes from Italy, Japan, Switzerland through Bombay. For price I enclose a schedule of Bombay rates.

Raw silk for warp used to be supplied formerly by Kashmir alone but now Japan is also competing raw silk for weft was formerly supplied by Bengal but now only Chinese are exclusively used except in small quantities of other make.

Twisted silk (called organzine)—formerly twisting was done locally and a small quantity of Japanese organzine was used as its price was very dear but now-a-days due to fall in price. Japanese organzine is exclusively used.

3. (1) Now-a-days twisted yarn is used and local twisting is generally discarded. There were a set of people doing this work alone.

(2) Boiling off is done both by weavers themselves and also by professional men.

(3) Dyeing by weavers themselves.

(4) By weavers themselves.

4. See answers to (2).

5. Classes of goods generally woven in our area, are what is mentioned in the list and many more because Benares supplied the wants of every province throughout India. Gulbadan is not woven now-a-days. Phulkari is an ambiguous word. If it mean cloth with flowered design on it yes we call it Pot Than, Gown pieces are not separate class of cloth. There are other classes as turbans, cholkhands, borders, etc., etc. We are not aware of any competition from imported goods except imported Japanese silk cloth. In suitings and shirtings Fuji silk cloth shirtings. Plain silk cloth and flowered silk cloth from Japan.

6-8. There are hundred of varieties and it is impossible to answer the question without coming to details.

9. The approximate daily production is about three lacs.

10. Spun silk is generally used for shirtings and suitings and also for warp of cheap sarees.

11. Yes—both cash and credit system are in vogue. Some give credit for fixed periods generally three months to good parties and charge nearly As. 4 per lb. To bad parties the profit is greater and the period is shorter, i.e., they demand money soon after the goods are ready and the profit even greater.

12. Importers sell direct to weavers also supply to retailers also on very small profit.

13. Bengal silks are far superior to the cheap Chinese silk. Kashmir silks are much greater in strength but less in lustre as compared to the Japanese.

14. Yes there are such systems also. The manufacturers supply silk yarn and design and settle the wages of the weavers. Sometimes they don't bother for the yarn and settle the prices of articles of a particular weight and quality.

15. About an year ago artificial silks was in great vogue for manufacturing cheap sarees costing below Rs. 5 but due to the strong picketting of the Congress art silk is now not allowed to be used in this market.

16. There are two classes of goods:—(1) One cheap articles which the weavers make themselves and bring for sale in the market. The prices of such

articles depend upon the condition of the market and the law of supply and demand. When the demand is great such as during marriage season, the prices sometimes go up by 25 per cent. and all the profit goes to the weavers and when the demand is less and supply more, the poor fellow have to sell with a very small margin sometimes barely enough for a decent living. (2) For high class goods fixed wages are given but when the market goes down the fixed wages too are reduced. Good workmen in this way are not subjected to market fluctuations.

17. Co-operative Societies so far as we know are not much helping the Industries of Benares.

18. Finished products are sold throughout the whole of India. Due to high tariff walls and selfish motives of every nation not to allow its wealth to go to other countries foreign export has been reduced. Mostly all the articles are sent by post as railways give very little facilities to silk merchants of Benares.

19. The demand is rather on the increase.

20. The present sources of supply of raw silk in Benares is Kashmir, Japan, China for mulberry silks.

Copy of letter dated the 11th June, 1932, from the Textile Stores and Machinery Corporation, Cross Lane, Railwaypura Post, Ahmedabad, to the Honorary Secretary, Benares Industrial and Trades' Association, Benares.

We have the pleasure to inform you that we are in a position to supply you the following yarns and with a view to get business from you beg to offer as under:—

Indian Mills—

- 2/60s, Grey Yarns, Reeled at Re. 1-4 per lb.
- 2/40s, Grey Yarns, Reeled at As. 14 per lb.
- 2/30s, Grey Yarns, Reeled at As. 11 per lb.
- 2/20s, Grey Yarns, Reeled at As. 9-6 per lb.
- 40s, Grey Yarns, at As. 12 per lb.
- 30s, Grey Yarns, at As. 10 per lb.
- 20s, Grey Yarns, at As. 7-3 per lb.
- 14s, Grey Yarns, at As. 6-9 per lb.
- 10½s, Grey Yarns, at As. 6-3 per lb.

The above rates are free on rails Ahmedabad and subject to your immediate acceptance and to the market fluctuation. We shall be glad to send samples of any of the above yarns on referring to us your present requirements for your kind approval.

Further, we shall thank you to refer to us your inequities in all sorts of grey yarns, fast to bleached guaranteed coloured yarns, healds, reeds, leather goods, bobbings, shuttles, etc., and we assure you our rates will be most reasonable.

Soliciting your valued requirements and thanking you in the meanwhile.

Jartar Co-operative Society, Poona.

Letter No. J. S./154 of 1933, dated the 11th February, 1933.

With reference to your letter No. 59, dated the 23rd January, 1933, I have the honour to send herewith answers to the questionnaire issued by the Tariff Board for Importers and Traders in connection with its enquiry Sericultural Industry.

Enclosure.

FROM S. B. ANTARKAR, THE CHAIRMAN, JARTAR WEAVERS' INDUSTRY DEVELOPING CO-OPERATIVE SOCIETY, LIMITED, POONA CITY.

Answer to the questionnaire for the Traders and Importers of the Tariff Board.

For the last 16 years I am manufacturing gold-thread of the thinnest possible quality and as such I had occasions to test various kinds of silk yarns both Indian and foreign for the use of gold-thread. I am also a Chairman of Gold-thread Weavers' Co-operative Society and have an experience of trading in silk. Though not an importer but a firstly, a Manufacturer of gold-thread receiving silk as a raw material and secondly, as a Trader I am trying to answer the questionnaire with what little knowledge and experience that I have.

Silk signifies both silk cloth and silk yarn as well presuming the questionnaire refer to silk yarn I am framing my answers accordingly.

1. Competition is keenest as regards silk cloth and yarn from China and Japan. The single reeled thread imported from China called kath, in four Numbers stands second to non in luster and tension (of the same price of Indian silk).

3. Generally it is noticed that the same quality of Indian silk is dearer by 1 to 2 Rs. per lb. The Bengal, Kashmir and Bangalore best silks are exported to foreign countries and generally the Indian Market being in the least know of the different superior Indian varieties.

4. This question refers to silk cloth.

5. Eighty per cent. of silk is despatched by a post in inland countries. Postal charges being uniform throughout India, octroi duties generally being exempted by post.

6. Cannot be stated.

7. Indian silk is equal in quality and appearance to imported silk. But it does not command the same price as that of foreign make. The causes for the difference of price are as under:—

- (1) Government Reports on Silk Industry say that the middleman's profit is exorbitant. The actual producer is scarcely able to maintain his own belly while the middleman earns lot.
- (2) The labour is un-skilled and requires training.
- (3) The machinery used for reeling and for other purposes is crude and defective. Especially in reeling and rereeling half the energy would be saved if the reeler takes up-to-date machinery.
- (4) Silk is sold on weight the weight of silk is the most knotty point in silk industry. The same length of silk weighing in rainy season weighs less in summer. Nay, the same amount of silk weigh in Nagpur weighs less or more according to the climatic condition of the weighing place. The thing is silk has the nature to absorb moist. Correct weight should be given to the customers. For this purpose conditioning houses must be established. Just as there are Dharam Kanta or weighing houses of gold and silver in all chief cities. In the same way weighing houses be established in all silk industry centres. Under particular temperature and humidity silk must be weighed. The degrees of temperature be fixed and the weight of that temperature in all seasons must be the same. All these arrangements can be made by hydrometric tables and certain other least costly requirements.

In fact the whole Industry require a through organization root and branch. It is misorganised from its initial stage to its finishing. The Government should suggest methods to organise and allow Indians to organise the same within a

stipulated time say for 5 years. For this stipulated period foreign imported silk must be levied with a duty of 10 to 15 per cent. more.

- (5) The system of distribution is also a faulty one. Even the experts are not in the know of all Indian made varieties of silk.
- (6) The waste of silk in reeling and rereeling should be collected and should be turned into waste spun silk. Special facilities in railway freight be given to such sort of waste. If some facilities are given by railway to Indian Mills (e.g., David Sassoon &, etc.) which are manufacturing spun silk would manufacture more cheaply and profusely. If this is done the spun silk which is imported from Italy, Czechoslovakia, Germany and Japan would be imported less and less.
8. Cannot say anything.
9. Yes. The Indian manufacturer is at a disadvantage in respect of plant and machinery, labour and materials, climatic conditions (as the whole of India is not able to rear silk, only some parts of India are climatically suited).
10. Silk articles are costly ones and as long as the economic condition of the people remain the same there is no hope of the rise of price, on the contrary there is every fear that artificial silk would gain ground over real silk. The artificial silk which is more brilliant and lustrous than the real silk if improved in strength would tend to reduce the price of silk.
11. The question refers to importer of silk and hence cannot be answered.
12. China silk which is imported is differentiated according to quality in 4 Nos. Recently Shriram Silk Throwing Factory of Bangalore has tried to give Numbers in deniers to silk yarns as per foreign silk (excepting waste or spun silk), which has got no deniers. This might perhaps be due to so many complications in the silk yarn, e.g., silk is not uniform, it varies in gummy matters, so the same weight is not obtained after bleaching.
13. Cannot be answered.
14. The competition is facilitated to a certain extent.
15. No marked change in recent five years.
16. Silk importers sell through brokers and retailers.
17. It is true that silk is silk and artificial silk art silk. No competition. People know the difference and it is now high time for a man being deceived by artificial silk for real silk. But the thing is, general weakness of the buying power refrains man from buying real silk goods. He knows the value of the real silk but his pocket does not allow him to go in for genuine articles. This preference owing to drastic economic condition is working to the disadvantage of real silk.
18. The real silk pieces which are called Khans used for upper garments of women folk are being ousted. Art silk is mostly tapping the place of real silk. Gulatgood, Hubli, Dharwar, Shirol the manufacturing centres of Khans are profusely using say 80 per cent. artificial silk instead of real silk.

Jamaitul Momin, Bhiwandi, Thana.

Letter dated the 24th February, 1933.

With reference to your letter dated the 31st January, 1933, I have the honour to supply you the following information:—

1. (i) There are no hand weavers engaged in weaving pure silk goods only.
- (ii) There are two thousand hand weavers engaged in weaving cotton piecegoods with silk borders.

(iii) There is not a single weaver engaged in weaving cotton goods only.

2. Weavers obtain raw materials, such as, silk, etc., from retail Marwari merchants who bring the same from Tambakanta, Bombay. Twisted silk comes from Shanghai and China. Kela silk is imported from Japan, Italy and England. The silk without twisting is imported from China. Immitation gold-thread is imported from France and Germany, and the real gold-thread is imported from Surat, Poona and Yewala.

3. (1) Twisting and Winding. (2) Boiling off. (3) Dyeing are done by us, but not doubling.

4. For warp doubled twisted silk and weft single untwisted silk is used.

5. We manufacture only sarees. We compete with Swadeshi cloth and not with the foreign cloth, because we manufacture sarees. Some small power mills also manufacture sarees; such as Tikekar Mills, Gajanan Mills. P. Kashinath Mill and two mills in Bhiwandi and ten to twelve mills in Sangli. All these mills manufacture sarees and defeat us in trade.

6. Two days are required to finish a saree. The length is nine yards. In the above mills daily four sarees are prepared easily by each weaver; and sometimes these mills are working day and night and in that case each weaver in 24 hours manufactures 8 sarees per machine.

7. Four tolas of twisted silk is used for each saree in the border, and untwisted silk $2\frac{1}{2}$ to 3 tolas for the portion of the saree covering the back of ladies.

8. The lengths of sarees are from 8 to 9 yards and the breadth being from 46 to 52 inches, and the breadth of Choli Khan being from 32 to 33 inches and the length being from $4\frac{1}{2}$ to $7\frac{1}{2}$ yards, and the price of the saree being from Rs. 2-8 to Rs. 7 and the price of the Choli Khan (Takha) being from annas 12 to Rs. 4 only.

9. We are unable to reply No. 9.

10. Spun silk is used in the border.

11. Silk, etc., is not given to us by the merchants on credit.

12. We get materials from the retail sellers and they bring the same from the agents.

13. Indian silk is glazing and soft to the touch, which quality is not to be found in foreign silk.

14. There is no such system here.

15. Artificial silk has very much affected real silk.

16. Wages are given for each adha, which is of 6 sarees. The twisting and winding charges, dyeing charges and weaving charges, etc., amount to Rs. 90 approximately and this is the approximate price of 6 real Gar sarees. The adha of other sarees with silk border and silk padar amounts from Rs. 30 to Rs. 42 and in the third quality the price of the saree is Rs. 2-8, and the price of the adha is Rs. 16 only.

17. Co-operative societies do not help us in the least.

18. Owing to slack of business and the prices having gone down in Bhiwandi and Bombay markets, the goods are sold in the adjacent villages by peddlers on retail.

19. Demand for natural silk is very poor.

20. We have no sufficient knowledge about this question.

The Momin (Weavers') Association, Bombay.

Letter No. 356, dated the 26th February, 1933.

Referring to yours of the 20th ultimo and the 17th instant, I have the honour to submit replies to the questionnaire regarding Silk Handloom Industry issued by your Board.

I have further to add that the whole trouble of the Silk Handloom Weavers in the city of Bombay is due to keen competition by China, Japan, France, etc.

Hence if anything can be done to ameliorate the conditions of the Silk Handloom Weavers, it will be to recommend *increase of duty on imported finished goods*.

The depreciation in the value of Yen, too, has added to our difficulties. Hence something in this direction too would go to help us.

The accompanying statement is the complete reply to the questionnaire issued by you.

Enclosure.

REPLIES TO THE QUESTIONNAIRE ON SILK INDUSTRY.

1. Of the total No. of looms in the city of Bombay—

- (i) 30 are worked for weaving pure silk goods,
- (ii) 90 are worked for weaving cotton sarees with silken borders,
- (iii) 215 are worked for weaving Cholikhans with artificial silk and cotton,
- (iv) 3 are worked for weaving cotton goods only.

2. The only materials used by the weavers in Bombay are (i) silk yarn, (ii) artificial silk yarn and (iii) gold-thread. The first two are foreign made while gold-thread is from Surat. Gold-thread from France was once used, but owing to its dearness on account of increase of duty on it, it has ceased to be used now. All these are purchased from local retailers—Chinese silk yarn for woof at the rate of Rs. 12 per seer and for warp at Rs. 17 per seer (of 72 tolas). Foreign artificial silk both for warp as well as woof at Re. 1-1 a lb. Surat gold-thread at Rs. 18 per bundle of 21 tolas.

3. Twisting is done by the weaver himself and winding and doubling by their women, while dyeing and preparing warp by other agencies. As we do not at all purchase raw silk, the question of boiling off does not concern us.

4. "Chakli Ladi" is used for warp and "Moosi Ladi", "Han Chowk", "Man Chowk", etc., for woof.

5. In Bombay we weave Dupattas, Shirtings, Gown pieces, and Handkerchiefs generally with and sometimes without borders of gold. Imported goods are always without gold borders and they are sold cheaper than ours of the same quality and without gold border.

6. Nine yards of any of the above-said four kinds of cloth are woven in from four to five days.

7. *Vide* No. 4 above. In a piece of nine yards 10 tolas of silk is used for warp and 28 tolas for woof.

8. (i) Gold-bordered Dupattas $4\frac{1}{2}$ yards in length and 34 inches in width is sold for Rs. 7-8 each.

(ii) Gold-bordered Handkerchiefs 34 inches in length and of equal width are sold for Rs. 1-9 each.

(iii) A nine yard piece without gold border for shirting or gown is sold for Rs. 11 each.

9. The approximate value of the total annual production of silk cloth for shirting or gown on one loom is about Rs. 1,000.

10. Spun silk is used only in borders of cotton sarees.

11. Yes, sometimes the merchants do supply us silk on credit for about fifteen days.

12. The importers' agents do not sell direct to us but through retailers.

13. Chinese silk is better than Indian. Here in Bombay we do not use Indian silk but weavers in Upper India do use it.

14. No.

15. Artificial silk has affected the market for real silk to a great extent, as will be seen from the following facts and figures:—

- (i) Out of 150 looms for weaving pure silk in 1921-22, there are left only 30 now.
- (ii) Out of 50 for weaving pure silk sarees, there is not a single left now.
- (iii) Out of 400 looms for weaving cotton sarees with pure silk border, there are about 90 left now.

16. Approximate cost of manufacture of a nine yard piece will be Rs. 6-8 for raw materials, As. 8 for conditioning and Rs. 4 for twisting, winding, weaving and other charges, *i.e.*, Rs. 11 in all. Payment is made after 7 pieces of 9 yards each are woven.

17. Nil.

18. We sell our products in Bombay only.

19. It is decreasing.

20. We do not deal with raw silk.

Indian Chamber of Commerce, Calcutta.

(1) *Letter No. C. 32, dated the 16th December, 1932.*

I have pleasure in forwarding to you herewith a copy of my letter to the Government of India, dated the 16th December, 1932, regarding enquiry into the sericultural industry, for your information.

Enclosure.

Copy of letter No. C. 32, dated the 16th December, 1932, from the Secretary, Indian Chamber of Commerce, Calcutta, to the Secretary to the Government of India, Department of Commerce, New Delhi.

I am directed by the Committee of the Indian Chamber of Commerce, Calcutta, to draw your attention to Resolution No. 607-T. (1), dated the 3rd December, 1932, referring the question of indigenous sericultural industry for examination to the Tariff Board. While my Committee are glad to find that the Government of India have been pleased to refer this question for examination to the Tariff Board, they are constrained to say that the terms of reference of the Tariff Board have been very restricted and exclude the consideration of many important aspects of our indigenous silk manufacturing industry. My Committee feel that apart from the sericultural industry, the silk weaving industry of India stands in need of Government assistance due to large imports of foreign silk, and to increasing quantity of imports of cheap artificial silk. It is not only imported raw silk that seriously competes with indigenous raw silk but the manufactured silk imported from foreign countries has also a very serious competition with indigenous silk fabrics. My Committee therefore trust that the Government of India will see their way to widen the terms of reference of the Tariff Board in such a manner as to include the question of protection to the silk weaving industry of India as well.

(2) *Letter dated the 23rd February, 1933, from the Indian Chamber of Commerce, Calcutta.*

I am directed by the Committee of the Indian Chamber of Commerce, Calcutta, to refer to the Resolution of the Government of India, dated the 3rd December, directing the Tariff Board to hold an enquiry into the question of protection to the indigenous sericulture industry.

At the outset, I am desired to express the regret of my Committee at the terms of reference for this enquiry being very much restricted, and the question of the grant of protection to the indigenous silk manufacturing industry being virtually excluded from consideration by the Tariff Board. My Committee feel that apart from the sericulture industry which stands in immediate need of protection, the silk weaving industry of India also deserves immediate Government assistance due to the increase of imports of cheap foreign silk as also of artificial silk. It is not only imported raw silk that seriously competes with indigenous raw silk but the manufactured silk imported from foreign countries is also a serious competitor of indigenous silk fabrics. My Committee therefore trust that the Tariff Board will see their way to make a reference to this important matter as well in course of their investigations.

My Committee do not propose to deal with the questionnaire of the Tariff Board *ad seriatim* but would like to deal with only such broad points therein as are of general importance. There are several questions in the questionnaire which are of a technical character of which my Committee have no direct knowledge.

The sericulture industry of India occupies a very unique position in the national economy of the province of Bengal. It is well known how for a long period Bengal used to produce large quantities of silk and exported the same to foreign countries. The rapid decline of the industry has very adversely affected the rural economy of the province, by throwing out of employment a large number of people. Less than 20 years ago our indigenous silk industry provided employment for more than a million persons of whom about 350,000 obtained their living by rearing silk-worms. Of these latter, about 45,000 rearers belonged to Bengal alone. Since 1915, however, the decline of the industry has been very rapid and my Committee are informed that only about 3,000 families comprising at most about 10,000 persons now eke out their living from rearing of silk-worms. Of these about 5,000 persons are entirely dependent upon silk-worm rearing and the rest have to supplement their income from other agricultural pursuits. In addition to these, there are at least about 10,000 more persons engaged at the present time in the work of reeling.

The silk industry has suffered greatly owing to its being essentially a domestic industry, practised by a large number of people scattered all over, and its not being organised like the cotton industry. The workers in it are very liable to be forgotten as they are not vocal enough and as in most cases they themselves do not realise the process of their being thrown out of employment. The industry has attracted very little attention in the past for this reason. Its products are consumed mostly in the country and as indigenous silk now-a-days plays hardly any part in our export trade the large commercial centres know little of it. The result is that our countrymen have not so far realised properly the importance of this cottage industry. The industry has also been neglected by the Government because it is so inconspicuous, very much out of touch with the officials, and is so little represented in any Chambers of Commerce or in the Provincial Councils. Even in the districts of Bengal, the silk workers are not so evident as they appear to the superficial observer as merely agricultural workers and as they do not force themselves on our every day business of life. Amongst the important causes for the decline of this industry may be enumerated:—

- (1) Absence of organisation,
- (2) Lack of capital,
- (3) Absence of up-to-date methods of work,
- (4) Lack of marketing facilities,
- (5) Invasion of the Indian market by cheap foreign supplies of silk,
- (6) Degeneration of the silk-worm, and diseases of the worms, etc.
- (7) Want of proper education of the rural silk manufacturers, particularly with respect to changes in fashion and outlook.

The extent of depression in the sericulture industry of Bengal that has mainly been brought about by foreign competition is most alarming, and my Committee are definitely of the opinion that if this is not checked before long, the industry will be wiped out of existence. The acreage under mulberry cultivation at the present time is hardly 5 per cent. of what it used to be in 1915. This will serve to show the extent of the decline of the sericulture industry. For instance, taking two typical villages of Osmanpur and Jothkomal in Raghunathgunj Thana, District Murshidabad, we find that the value of the sale of cocoons has gone down from Rs. 5,000 per year to only about Rs. 400 during the last five years. Examining the decline from the figures of foreign trade, my Committee find that the value of export of raw silk from the province of Bengal has fallen from Rs. 15,14,420 in the year 1923-24 to Rs. 2,16,244 in the year 1930-31. The value of the export of manufactured silk from the province of Bengal also fell from Rs. 2,83,800 in the year 1923-24 to Rs. 12,821 in the year 1930-31. The exports of silk raw and manufactured, from the province of Bengal for the year 1923-24 to 1930-31 are shown in the following table:—

<i>Value in rupees.</i>		Silk.	
		Raw.	Manufactured.
1923-24	. . . . .	15,14,420	2,83,800
1924-25	. . . . .	7,16,066	1,13,974
1925-26	. . . . .	6,25,302	1,22,228
1926-27	. . . . .	2,41,505	1,20,813
1927-28	. . . . .	2,49,548	92,605
1928-29	. . . . .	1,48,785	71,608
1929-30	. . . . .	2,89,105	60,029
1930-31	. . . . .	2,16,244	12,821

The above figures tell their own tale and further comment is needless.

Corresponding to this decline in exports the imports of silk yarn and piecegoods from foreign countries into the province of Bengal are also greatly increasing and are displacing indigenous silk yarn. In the year 1923-24 the value of the import of foreign silk yarn in Bengal was Rs. 2,67,122 whereas in 1931-32 the value of the import was Rs. 9,90,989. The value of the import of manufactured silk that is, piecegoods, increased from Rs. 14 lakhs in 1923-24 to Rs. 20,88,000 in 1930-31. And this increase in value of imports means much greater proportionate increase in quantity inasmuch as prices have gone down in recent years. A notable fact is that there has been such a great increase in the imports of foreign silk at a time when there was a tremendous fall in the import of cotton piecegoods. Unless this tendency is checked by the imposition of a heavy import duty, the Indian silk industry will come to grief before long.

In this connection, my Committee desire to invite the attention of the Tariff Board to the further fact that the cheap artificial silk cloth imported from foreign countries during the last few years has also been a serious competitor with the indigenous silk fabrics.

Due to the gloss imparted to artificial silk cloth, and its comparative cheapness, there has been a tendency for the people to use that cloth in substitution of Indian silk manufactures. My Committee would also refer you in this connection to the observations made by them in their representation to the Tariff Board (Cotton Textile Industry Enquiry), dated the 16th May, 1932, in regard to initial cheapness of cloth being a paramount consideration in the purchase thereof in this country due to the great poverty of the people. The import of artificial silk cloth has therefore been steadily increasing during the last eight years to the great detriment of indigenous

manufactures. In fact in the year 1927-28 it reached its maximum when the value of the import of such cloth amounted to Rs. 92 lakhs. As a result of such a severe competition of foreign silk as well as artificial silk fabrics, the production of the indigenous silk industry has undergone a rapid decline and unless timely measures are taken by the Government, there is no doubt that the industry will come to grief.

We may now consider the imports of raw silk, silk yarn and silk piecegoods into India from foreign countries. In the year 1923-24, 13 lakhs lbs. raw silk was imported while in the year 1927-28 its import went up to 23 lakhs lbs. and during the year 1930-31 the import fell to 15 lakhs lbs. although the fall is nothing as compared to the great fall in the import of cotton piecegoods.

The quantity of silk yarn imported from foreign countries into India also increased from 9 lakhs lbs. in 1923-24 to 20 lakhs lbs. in 1928-29 and 17 lakhs lbs. in 1930-31. The import of silk fabrics went up from 140 lakhs lbs. in 1923-24 to 212 lakhs lbs. in 1927-28, 229 lakhs lbs. in 1929-30 and 192 lakhs lbs. in 1931-32. Here again the fall in the imports of silk fabrics is very small as compared with the fall in the imports of cotton piecegoods.

The tendency of the increase of the import of raw silk, silk yarn and silk piecegoods in India can be seen from the following table. The decline in the figures of value indicate that the prices of raw silk, silk yarn and silk fabrics have fallen by about 50 per cent. during the last few years.

—	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1931-32
<i>Silk Raw.</i>									
Quantity (lakhs of lbs.).	13	14	13	17	23	21	21	19	15
Value (lakhs of Rs.).	119	119	94	113	145	123	123	88	62
<i>Silk Yarn.</i>									
Quantity (lakhs of lbs.).	9	15	5	12	13	20	19	14	17
Value (lakhs of Rs.).	70	101	35	63	58	85	71	51	51
<i>Silk Piecegoods.</i>									
Quantity (lakhs of yds.).	140	161	182	189	212	218	229	167	192
Value (lakhs of Rs.).	229	233	211	242	258	244	222	126	126

Apart from the great increase in the field of imports of foreign silk (raw), foreign silk yarn and foreign silk piecegoods, the question of the remarkable decrease in its price also calls for immediate attention. My Committee feel that this is the direct result of dumping of foreign silk in India. The value of the foreign silk yarn per seer at the present time is Rs. 11½. The price of the same quality five years ago used to be about Rs. 25. The cost of production of silk yarn in Bengal comparable to the quantity of imported silk yarn, cannot be anything less than Rs. 13 at the present time. It can easily be seen therefore that at the prevailing price of foreign silk, it is impossible for the indigenous sericulture industry to compete successfully. After a consideration of these various factors mentioned herein, my Committee feel that it is impossible to prevent the sericulture industry from being wiped out of existence unless speedy and adequate measures are taken by the Government for its assistance. My Committee are also convinced that the sericulture industry admirably fulfils the conditions laid down by the Indian Fiscal Commission for the grant of

protection. The industry is not in a position to develop at all without protective measures. Nay, it will soon be extinguished unless it is given a helping hand by the Government. My Committee are also convinced that the industry is capable of revival and of further growth as observed elsewhere. Bengal is reputed for her celebrated silk manufacturing industry and if the menace of the foreign silk competition is removed by the imposition of an adequate protective duty, the industry will again revive as it possesses the various necessary conditions favourable for its growth. There is a large demand in the country for Swadeshi silk fabrics which the silk weaving industry of this province as also of other provinces are capable of meeting, provided they are given the necessary encouragement. My Committee also feel sure that the sericulture industry will eventually be able to face world competition without protection. If adequate protection to Indian silk can be given, by increasing the import duty on foreign raw silk as also foreign silk piecegoods, its cost of production can be decreased and if the industry is thus given an opportunity to develop under the impetus of State assistance, it will be able to dispense with the necessity of protection in the future.

My Committee trust that the statistics given above will serve to show that foreign silk is ousting Indian silk from its traditional markets and has also invaded its own territory, largely if not entirely, by its cheapness. In this connection, my Committee would also like to invite the attention of the Tariff Board to the fact that since 1931, the Indian cotton mills have also made it a point not to use any foreign silk and therefore the indigenous silk industry is assured of a large demand of silk from these mills, if only suitable facilities are afforded to them to strengthen their present position.

My Committee trust that the Tariff Board will recommend suitable measures to the Government for the assistance of this celebrated industry of India which is almost on the point of extinction.

The Indian Chamber of Commerce, Tuticorin.

(3) Letter No. 7/59, dated the 25th February, 1933.

I have the honour to bring to your kind notice that the Memorandum submitted to you by the Mysore Chamber of Commerce, regarding the importance of the grant of protection to the sericultural industry of India against foreign competition deserves your immediate attention.

Mysore State producing nearly half the total annual consumption of raw silk in India, cannot afford to withstand the ruthless competition of the foreign stuff and allow her important industry, which is indirectly the industry of India, to die out.

The foreign competition has of late told very heavily on the acreage of mulberry cultivation. The alarming depreciation of the Yen rendering the easy dumping of cheap Japanese silk into India even after paying 25 per cent. import duty, has proved another factor threatening the extinction of the local industry.

Silk industry comprising of various branches, has been affording the means of livelihood to lakhs of families and the present crisis cannot be easily ignored.

My Chamber is quite confident that when once the proper foundation for expansion of the industry is laid with the support of protective measures initiated by Government, the industry is bound to become self-sufficing and proof against competition also to some extent, in course of time.

Under the circumstances, my Chamber prays that you will be pleased to recommend strongly to the Government of India, to grant immediate and sufficient protection for the sericultural industry which stands in danger of extinction.

Mysore Chamber of Commerce, Bangalore.

(1) *Letter No. 1197-M. C. U., dated the 29th January, 1933.*

I am directed to send herewith six copies of the Memorandum of the Mysore Chamber of Commerce on the sericultural industry of the Mysore State for favour of submission to the President and Members of the Tariff Board.

Enclosure.

PROTECTION TO SERICULTURE.

Memorandum by the Mysore Chamber of Commerce.

Mysore sericultural industry.—The sericultural industry is one of the ancient industries of Mysore. It is essentially a rural industry. The growing of mulberry, the rearing of silk-worms, the reeling of silk and the weaving of silk fabrics and all other processes connected with the sericultural industry have all an important bearing on the rural economy of the village life and are intimately connected with the prosperity of agriculture over a large area in the State. Mulberry is an important commercial crop which is considered to be more profitable than even sugarcane where sericulture is in a normal state of prosperity. In 1914-15, only 25,000 acres were under mulberry cultivation. In the course of about twelve years, this area increased to 54,000 acres, thus testifying to the phenomenal growth of the sericultural industry in the State. In the different branches of the sericultural industry such as, mulberry cultivation, rearing of silk-worms, trading in cocoons, reeling of silk, etc., it has been computed that before the present depression in silk trade set in, nearly two lakhs of families used to find occupation of one kind or another; but now owing to the serious depression, caused by foreign competition, there is great dislocation, and consequent unsettlement.

Its national importance.—The sericultural industry in Mysore is not merely an important factor in the economic life of the people of the State. Its prosperity or decline has an important and direct bearing on the economic structure of the rural society as a whole. Thus the problems connected with the sericultural industry in Mysore are of vital significance to India. Let us elucidate the position further. Out of a total annual consumption of about 4 million lbs. of raw silk in India, the internal production of India accounts for 2 million lbs. of which it has been computed that Mysore State alone produces nearly 50 per cent., thus showing the important part played by Mysore in the textile industries of the country. Hence it is of the utmost importance that this industry of Mysore should be saved and saved immediately from the injurious effects of ruthless foreign competition, not only in the interests of the State, but also in the larger interests of India as a whole.

Extent of depression in Mysore.—The extent of depression in the sericultural industry of the State due to foreign competition is alarming in the extreme and if this is allowed to continue the collapse of the industry is inevitable. It is well therefore to adopt timely measures to checkmate the dangerous consequences of the foreign competition. It has been already stated that due to the existing depression the acreage under mulberry cultivation in the State has fallen from 54,000 to 37,000 which may be taken as an index of the amount of suffering caused by loss of employment. Before the present period of depression set in, Mysore was exporting to different centres of silk industry in India, after providing for her own internal consumption, raw silk to an extent of 930,618 lbs., valued at Rs. 75,33,000 (1925-26). Since then, there has been a progressive decline in the quantity and value of her exports of silk, which stood in 1931-32 (the latest year for which statistics are available) at such a low figure as 367,440 lbs. valued at Rs. 22,22,200, thus indicating an alarming decline by two-thirds in quantity and nearly three-fourths in value. Obviously, this

decline is a sufficient indication of the nature and extent of the seriousness of foreign competition, but what is more alarming is the extent to which foreign raw silk has displaced Mysore products even in its home market. When the sericultural industry of the State was in a normal state of prosperity, it can be said without fear of contradiction, that the Mysore silk enjoyed special preference by reason of its superior quality and its intrinsic worth as compared with the foreign products. In 1928-29, 19,875 lbs. of foreign silk were imported into the State; and within the short space of two years, *i.e.*, in 1931-32, the quantity imported, *viz.*, 36,560 lbs. had almost doubled itself. This is a state of affairs grave enough, in all conscience, to call for special measures for the protection of the industry from the utter ruin with which it is threatened.

Depression in India.—That the foreign competition has seriously affected the sericultural industry in India can be gathered from a close study of the figures of imports of raw silk into India during recent years. In 1925-26, only 1,325,364 lbs. of raw silk valued at Rs. 94,33,827 were imported into India. By 1929-30, the imports had increased to 2,175,239 lbs. valued at Rs. 1,23,12,563 thus indicating an increase of more than 50 per cent. in volume. For the seven months of 1931-32 (April-October) the imports have shown a striking increase, being 2,144,553 lbs. valued at Rs. 81,94,941, *i.e.*, equal in quantity (for this fraction of a year) to the total imports of the whole year of 1929-30. Comment is needless. These figures prove, if any thing, that the sericultural industry in India is threatened with extinction.

Decline in the prices of foreign silk.—Even more than the increase in the volume of imports of foreign silks into India, the phenomenal decline in the price of imported silk calls for serious consideration. This is the direct and inevitable result of the dumping of foreign silk into India. It has been computed that the cost of production of Mysore silk is now about Rs. 6-8 per lb. even for inferior grades. It is naturally more for finer varieties of silk and is certainly more in the case of the filature silk. In the year 1927, which can be taken as the normal year so far as the Indian sericultural industry is concerned, the price of Mysore silk varied between Rs. 9 and Rs. 10-4 per lb. according to quality. From that period onwards there was a gradual decline in prices, until at last at the present time Mysore silk sells at from Rs. 5-8 to Rs. 6-8 per lb., *i.e.*, at prices below the normal average cost of production, due to the pressure of foreign competition. Foreign silk, which was selling at Rs. 7-12 per lb. in 1925-26, has now come down to even below Rs. 4-8 per lb., *i.e.*, at least Re. 1 below the price of the lowest quality of Mysore silk and this is after paying an import duty of 25 per cent. Therefore, it can be easily realised that at the price of foreign silk now prevailing it is impossible for the indigenous silk to successfully compete with the imported variety. The continuance of such an unhappy state of things cannot but sap the very foundations of the Indian sericultural industry. The Indian weaver is at present prepared to pay a higher price for the indigenous silk on account of its intrinsic worth, but with the increasing demand for cheap goods, it is but natural that he should be sooner or later drawn towards foreign silk, because of its cheapness despite his natural inclination to use the indigenous product. With the efforts that are now being made in India for the improvement of the sericultural industry the cost of the indigenous silk is being gradually reduced. But if in the meantime protection is not given against the fatal competition of foreign silk, these improvements will not have time to produce their effect. When once the local industry is killed it is very difficult to resuscitate it. This is a very serious position of which due heed should be taken. Our silk weaving industry and sericultural industry stand or fall together.

Exchange variations.—An important factor contributing towards the capture of the Indian silk market by China and Japan during recent times has been the depreciation in the exchange value of the currencies of these countries.

In the beginning of 1930, the depreciation was so heavy that it stimulated imports into India at steadily declining prices. Therefore in affording pro-

tection to the sericultural industry in India it is very necessary that proper account should be taken of, and proper allowance made for, this factor of economic disturbance.

Need for protection.—From what has been stated so far, it is evident that the sericultural industry in India is now faced by conditions which render it impossible for it to make further progress or even exist without adequate protection from foreign competition. It is difficult to speak with any certainty of the position of silk industry in China and Japan. No doubt the fluctuations in exchange have helped them to a large extent. Our sericultural industry which has grown up by a natural process as an appendage of agriculture is capable of being most efficiently organised so as to meet the entire Indian demand at very reasonable prices if only it is afforded time and support. In this slow process of growth it has come to represent a very large quantity of poor men's capital and it occupies a very important place in the economic life of the people. Its destruction would entail untold misery and loss to millions of our countrymen. If on the other hand it is protected against the immediate danger that threatens its existence, there is no doubt that it is capable of further growth and prosperity. Its development will also conduce directly to the development of the handloom silk weaving industry.

Protection imperative.—For affording protection to any industry, the Indian Fiscal Commission have laid down an important condition, namely, that the industry concerned should be one which, without protection, is not likely to develop at all or will develop tardily. Enough has been said above to show that protection to the Indian sericultural industry is a matter of life and death. Development is possible only if the industry is enabled to live by being protected against the overwhelming competition. The decrease in the acreage under mulberry indicates clearly how real and pressing the danger is and how urgent the need for protection is.

The next consideration is that the industry should be capable of further growth. The Chamber can speak from direct knowledge of the sericultural industry in Mysore. Here the industry possesses all the conditions favourable to development such as a suitable climate and soil and a large population which has no inconsiderable inherited skill and is ready to put its hand to sericulture so soon as the present depressing circumstances cease to exist. The growth of the industry from 1915 to 1926-27 is an indication of the vitality of the industry in Mysore. The demand for silk in India is normally round about 4 million pounds. The Mysore industry alone is capable if necessary of meeting the greater part of this demand. This Chamber believes that the industry in Kashmir has also great potentialities of development. It is probable that the same is true of other silk producing parts of India. There can be no doubt whatever that India can not only become self-sufficient in silk but could also produce a surplus for export under favourable conditions. Side by side with expansion a gradual decrease in the cost of production is also possible. It is worthy of note that the cost of Mysore silk has been reduced by more than 40 per cent. during the past 5 or 6 years and yet further reduction is possible.

The third condition is that the industry is capable of dispensing with protection after a limited period. This follows from what has already been stated. If, as we confidently anticipate, Indian silk production can be increased to more than cover the Indian demand, the cost is capable of being reduced to somewhere about half the present level. The Indian looms should get into the habit of looking for their supplies to Indian sericulture. It seems to follow logically that no further protection will then be necessary. The Chamber is of opinion that this is a state of things well within the bounds of practical achievement, if the several Governments adhere to a carefully considered programme of development.

The question of protection for the Indian sericultural industry has thus been examined in all its aspects. It now only remains for us, in conclusion, to make a strong appeal to the Tariff Board to recommend such

measures for adoption by the Government of India as would conserve this great industry for the benefit of the Indian Nation.

(2) *Letter No. 1327-M. C. C., dated the 21st February, 1933, from the Mysore Chamber of Commerce, Bangalore.*

With reference to your letter No. 5 of 3rd ultimo, forwarding therewith copies of the questionnaire issued by the Tariff Board in connection with its enquiry into the sericultural industry in India, I am directed to send herewith six spare copies of the replies by the Chamber for favour of submitting to the President and Members of the Board.

Enclosure.

PROTECTION FOR INDIAN SILK—TARIFF BOARD QUESTIONNAIRE IN CONNECTION WITH ITS ENQUIRY INTO THE SILK INDUSTRY.

Reply by the Mysore Chamber of Commerce.

2. The industry comprises three branches:—

- (a) the rearing of silk-worms,
- (b) the reeling of silk yarn,
- (c) marketing of the silk.

(a) The first is essentially a cottage industry and is in the hands of agriculturists, among whom any organization is wholly lacking. The production of cocoons by a single family is very limited and does not require much finance; such financial help as a rearer may occasionally require (and which generally is for purposes other than those of the industry) is obtained by a temporary loan from the prospective buyer of cocoons. With regard to the marketing of cocoons the rearer finds no difficulty, as the reeler or his agent goes to his door whenever a crop is in sight.

(b) The reeling industry is well established in the vicinity of rearing areas and is generally in the hands of men of small means who keep one or more charkas. Among them also there is no organization. As soon as they have a small quantity of silk ready, they bring it to the central market at Bangalore (or a few other places) and either sell it outright to the silk merchants there or deposit it with them pending sale. In the latter case the merchants sometimes advance a portion of the value at interest (generally 9 per cent.). They have no other source of obtaining finance.

It is computed that there are 4,000 charkas in the State. Assuming that they work for only 15 days in the month, their number is enough for reeling 12 lakhs of lbs. of raw silk a year, which is larger than the total production. Hence there is much competition among them for cocoons; on the other hand, reeling profits are low and the price of silk is kept at a minimum level.

(c) The "Koties" or shops which buy and sell silk have not organised themselves into a body. Their finance is found partly from family capital and partly from loans obtained from Bankers, the prevailing rate of interest being 8 per cent. Though they sell largely to places outside the State, they do not keep depôts or agencies at those places, and very often the buyer has to come to Bangalore to make his purchases on the spot.

Efforts have been made in recent years to form Sericultural Co-operative Societies in villages, and a Central Silk Association has also been established in Bangalore. But progress has been difficult owing chiefly to the depressed condition of the industry.

15. The Chamber agrees that climate is a most important factor in the development of sericulture and has no doubt that the climatic conditions in the State are exceptionally favourable for the purpose.

24. The information at the disposal of the Chamber leads it to believe that filatures in India are under no disadvantage as compared with their foreign competitors. The Mysore cocoon is smaller in size than the foreign one and is not so easy to reel. But this disadvantage is set off by the fact that crops are available throughout the year which enables a filature to work with the minimum capital.

30. (ii) There is no reason to think that Indian Labour is inefficient for the purpose of the industry.

37. In India raw silk is used for weaving and for the manufacture of gold thread and 'Nakhi'.

38. The total Indian demand is estimated at 4 million lbs. a year and the Indian production of raw silk at 2 million lbs.

39. It has not been possible to collect statistics of the quantity of raw silk produced in Mysore. A good portion of it is used up within the State for weaving, which has been rapidly extending especially since 1931, but the quantity exported exceeds that consumed in the State. The figures of export since 1926-27 are given below:—

Year.	Lbs.	Year.	Lbs.
1926-27	746,692	1929-30	552,844
1927-28	670,560	1930-31	383,440
1928-29	610,650	1931-32	367,440

It will be seen that there has been a very substantial fall in the exports; and there is little doubt that the severe competition of foreign silk has seriously affected the demand for Mysore silk and tended to keep production at a minimum. This is borne out by the evidence of those in the trade. One striking fact that should be mentioned in this connection is that during the year 1932 Mysore itself has consumed more China silk than local silk.

The marketing methods adopted have been referred to in reply to question No. 2.

The waste was wholly exported overseas.

41. The price charged in distant markets is not higher than that in the home market, if a reasonable margin is allowed for handling and transport charges and retailer's profit.

43. There is no difference between the prices published by the Chamber and the actual prices.

46. Exports of raw silk from China are in receipt of bounties from the Government of China to the extent of 130 taels per bale of 133 lbs., which is equivalent to about Re. 1-3 per lb. As this sum represents anything from 30 to 50 per cent. of the landed cost of China silk, exclusive of duty, there is very little doubt that importers are obtaining their silk at prices well below the cost of production.

Copies of two communications are appended to prove the grant of the bounty referred to above.

47. Imported silk is cleaner than Mysore Charka silk and therefore winds better; but it is inferior in point of lustre, strength and dyeing qualities.

The present disparity in the price of Mysore and China silk is not due so much to the difference in the quality as to other causes. In the past, Mysore silk found a ready market at a price of about one rupee per lb. higher than that of imported silk (though it must be added that its quality was not as good as of that which is now being imported). Whether Mysore silk will receive the same preference hereafter is however a matter of some doubt in view of the fact that the weaver who was not accustomed to foreign silk has now acquired a taste for it. The Chamber is therefore distinctly of opinion that if there is a margin in favour of foreign silk, it should be kept as low as possible.

48. The fall in the exchange value of China Currency has been one of the most pronounced causes which have brought about the present situation, as will be seen from the following statement:—

Prices of Canton Filature Silk in Bombay.

	Exchange with Shanghai.	Exchange with Hongkong.	Price per lbs. Rs.
June, 1929	162	133	11·6
December, 1929	148	117	10·2
April, 1930	131	104	7·4
July, 1930	104	88	5·4
October, 1930	110	90	5·5
January, 1931	92	70	5·4
October, 1931	111	85	7·6
January, 1932	127	98	6·8
April, 1932	112	85	6·3
July, 1932	112	87	4·5
November, 1932	121	92	4·7

49. Silk-waste is not imported into India.

50. Two mills in Bombay, the Sassoon and Alliance Silk Mills and the Chhoi Silk Mills, were engaged in the manufacture of spun silk, but have since given it up.

The desirability of installing waste spinning plant in Mysore has often been stressed and estimates of cost worked out. But the general depression has prevented the starting of any new enterprise. Nevertheless, in view, on the one hand of the enormous demand for spun silk in India, and, on the other hand, of the abundant quantity of raw material available (about one million lbs.) as well as the cheapness of Indian labour, there is reason to believe that waste spinning plants can be successfully run in India.

The Chamber has no reliable statistics to produce. But it is believed that the capital cost of a plant for spinning 100 lbs. of spun silk a day, would be between 2 and 3 lakhs of rupees.

51. The following are the chief causes which have contributed to the decline of the sericultural industry:—

- (1) Increased production in China and Japan, resulting in a fall in the prices;
- (2) Reduced consumption of China silk in America, rendering it necessary for China to capture the Indian Market;
- (3) The grant of bounties to exports from China.
- (4) Heavy fall in the price of waste, which, hitherto, was the main, if not the sole, source of profit to the reeler;
- (5) Marked depreciation amounting to 40 per cent., in the fall of the Japanese Yen and the Chinese Tael and Dollar;
- (6) Heavy imports of piecegoods of silk and artificial silk; and
- (7) World wide depression.

52. If the causes stated above are correct, they must be considered to be the result of world factors.

53. So far as world depression and the depreciation of exchange are concerned, they are no doubt of a temporary character. The others are more or less of a permanent character. But if the Indian industry is protected against foreign silk, its development will hardly be affected by these causes and will proceed on independent lines of its own.

54. India has never exported raw silk or cocoons in appreciable quantities, nor is it necessary to encourage such exports, since India has a large home market for all grades of silk.

The falling-off in the demand for Indian silk waste seems to be due partly to the competition of waste from China and Japan, and partly to the increasing use of artificial silk in place of spun silk.

55. The present method of levying revenue duty on raw silk, and more especially the system of classification adopted for the purpose of the tariff valuation, have seriously affected the industry and call for a change. The bulk of the imports are classified under two divisions, yellow and white, and each class sub-divided into (1) Shanghai and (2) Others, with a tariff value assigned to each. But no difference is made between qualities which carry a higher price and those which fetch a lower price, and the consequence is that the former pay a smaller duty than is warranted by the actual selling price. This fact has in recent years encouraged the import of better qualities and intensified the competition. Moreover until 2 or 3 years ago, the tariff valuation was distinctly below the actual import price and that was another handicap to the Indian industry.

The Chamber is in favour of levying duty *ad valorem* on the basis of the invoice price instead of by tariff valuation. But whichever method is adopted, it is essentially necessary that the distinction should be based on the real value and not on the colour or place of shipment or production. Filature and re-reeled silks necessarily carry a higher price than hand reeled silk (which corresponds to our charka silk) and can moreover be readily distinguished by means of the descriptive label they bear. There is absolutely no reason why they should not bear a higher valuation.

A considerable quantity of thrown silk is imported from Japan, but the imports are not separately classified, as they are merged under "silk yarn", "noils and warps". There are about a dozen throwing mills in Mysore, capable of dealing with about 700 or 800 lbs. of raw silk a day. Not only so, but throwing machines of a quality fully equal to that of imported ones are actually being manufactured in Bangalore. It is therefore necessary, in the opinion of the Chamber, to discourage the import of foreign thrown silk, by levying a prohibitive duty thereon.

56. (A), (B), (C) All the three conditions mentioned in this question are fully satisfied in the case of the sericultural industry.

57. The minimum protection required is the levy of a duty which would bring up the landed cost of foreign silk to the basic cost of production of Indian silk. This latter is Rs. 6 for charka silk and Rs. 8 per lb. for filature silk.

At current prices of foreign silk this measure of assistance would represent a specific duty of about Rs. 3-8 per lb. for hand reeled silk and Rs. 4-8 for filature silk, the real duty however being less by Rs. 1-3 per lb. if the bounty given at the other end is taken into account.

In determining the degree of protection it should be borne in mind that the unprecedentedly low level of prices which has prevailed during the last year or two, is an altogether temporary phase which nobody expects to last. The basic cost of production, *viz.*, Rs. 6 is, at present, *at its very lowest*, and it will entail no great hardship on the consumer if foreign silk is not allowed to be marketed below this minimum. Nor need such duty be regarded as prohibitive from the point of view of the importer. In being placed on the same footing as the Indian reeler, he will not be handicapped in any way, but will merely lose the unearned advantage which he now derives from an abnormal state of things. Indeed it seems to the Chamber that if the Indian industry is to receive the full measure of protection to which it is entitled, if it is to be properly developed in the interests of the country, there should be some margin *in its favour*.

Protection should, in the first instance, be given for a period of 15 years, as that is the minimum time required to develop the industry sufficiently.

The Chamber strongly urges that a substantial portion of the income derived from the protective duty should be distributed among the sericultural areas for the early development of the industry in the interests of the country.

58. An increase in the price of raw silk to a level of not more than Rs. 6 per lb. would not ordinarily have any material effect on the silk weaving industry, whether power loom or handloom. But at present, the conditions are wholly unusual. While China is forcing her raw silk and silk piecegoods on us, Japan is relentlessly dumping India with six different lines of materials, which both directly and indirectly contribute towards the stranding of our weaving industry. Their cumulative effect will be understood at a glance from the following comparative statement showing the imports from Japan during the first 9 months of the year 1927 and each of the last 3 years :—

	9 MONTHS APRIL TO DECEMBER			
	1927.	1930.	1931.	1932.
1. Silk yarn, noils and Lbs. warps, i.e., thrown silk and spun silk.	178,236	157,377	102,198	984,274
2. Piece-goods of silk . Yds.	7,953,378	5,675,079	7,769,284	18,968,551
3. Piece-goods mixed „ with other materials.	681,163	2,612,269	2,558,049	5,872,589
4. Artificial silk Yarn . Lbs.	..	2,820	69,532	1,771,308
5. Piece-goods of Artificial silk. Yds.	..	6,790,834*	54,847,844	86,118,368
6. Piece-goods of Artificial silk and Cotton.	632,495	367,078*	1,037,748	2,103,869

* September to December, 1930.

These figures are so striking that no comment is necessary to bring home the severity of the handicap of the silk weaving industry. Indeed its claim to protection, on its own merits, would seem to be fully established, apart altogether from the new situation which would be created by reason of the grant of protection to raw silk.

If therefore any assistance is given to raw silk, it follows that a like measure of assistance to silk weaving is doubly necessary. Otherwise, while silk piecegoods enjoy all their present advantage, the effect of a protective duty on raw silk alone, would be the very reverse of that which is intended, resulting in serious injury not only to weaving but to sericulture itself. In the first place, the imports of piecegoods will grow in volume. Secondly, newer lines of materials will replace those to which the country is accustomed, as has already happened, for instance, in the case of sarees which are now made up from material in the shape of crepe, georgette, and plain silk (unprinted). Thirdly, there is nothing to prevent Japan from going in for the manufacture of the conventional Indian sari itself, which provides work for the great majority of Indian looms. Fourthly, when the weaver finds his occupation gone, he will have no more use for raw silk and not even the maximum protection will then be of any avail to the sericultural industry. Therefore, both in the interests of weaving and of sericulture, it is absolutely necessary that any disparity between the value of raw silk and of the raw material comprised in the silk fabric, should be removed by the levy of a corresponding duty on the latter. It is scarcely necessary to stress this point at a time when strenuous efforts are being made in all directions to revive our long neglected weaving industry.

This Chamber therefore begs to urge that protection to sericulture should carry along with it, as a necessary corollary, the imposition of an increased duty on silk piecegoods. It is suggested that besides the existing revenue duty, an additional protective duty should be levied on silk piecegoods and, in the case of piecegoods of silk mixed with other materials, on the value of the silk contained in such material. It is necessary that such additional duty should be higher in the case of goods which come into competition with those manufactured in India, such as crepes, georgettes, satins, taffetas and unprinted silks; in other cases the duty may be a little lower.

59. The cost of twisting raw silk varies from Re. 1-8 to Rs. 2-8 per lb. for ordinary weaving; for crepe or georgette it is higher.

In the case of piecegoods, the proportion of raw silk is about 40 per cent. of the cost of the finished fabric.

60. Judging from general considerations the Chamber feels no doubt that the grant of protection will give a great stimulus to the sericultural industry and attract capitalists to it, which will have the effect of ensuring its rapid development leading to large scale production and reduction in the cost of manufacture. The means by which such development should be brought about would seem to be the adoption of the following measures:—

- (1) The grant of effective protection.
- (2) The cultivation of selected varieties of mulberry and the provision of facilities for irrigation.
- (3) Active efforts for the provision of disease-free seed to the fullest extent required.
- (4) The propagation of better yielding races of silk-worms.
- (5) Improvement in reeling methods.
- (6) The encouragement of Filatures.
- (7) The creation of an Agency to perform some of the functions of a Silk Conditioning House.

No. 10, Rue Du Consult,
Telephone No. 11740.
Shanghai, 16th May, 1932.

SILK MARKET REPORT.

Reports from all consuming centres are dull and bearish and no demand is forthcoming. In order to help local filatures in liquidating the large stocks of silks on hand, the Chinese Government has granted a bounty of T. 100 per bale on the export of old steam filatures in storage now. In addition the export duty has also been abolished on the above. But the recent further slump in Japan (declining to a new low level of Yens 420) has rendered the competition too strong to admit to any unloading on a large scale in our market.

* * * * *

(Sd.) J. C. Chivai & Co.

COUNTER MEASURES TAKEN BY CHINESE GOVERNMENT TO THRIVE HER SILK INDUSTRY.

The Bureau of Sericulture:
(Tokyo, Japan.)

June, 1932.

The Government of China has decided to take counter measures to thrive her silk industry as enumerating below:—

- (1) The Government will exempt the traders of silk from export duty, having been thirty young* per bale of silk.

* 1 Young = 14/13 Rupee.

- (2) The Government will subsidise them for the export of silk stocked in the stores of Chaing-su and Chechiang (both of them are the centres of the silk industry in China) and for that reeled out of dry cocoon, by 100 young per bale.
- (3) The Government will supply the filature the fund for purchasing the cocoon to reel by the amount for 3,000,000 young to Chaing-su and Chechiang through the Banks of Government.
- (4) The Government will lend them money as much as possible on the mortgage of silk or cocoon in their stock within the limit of 4,000,000 young totally.
- (5) The Government will increase the import duty of artificial silk cloth by 40 per cent.
- (6) The Government will spend all estimated sum of 8,000,000 per year income by the above increased tax for the development of the silk industry for coming six years successively.

(3) *Letter No. 1359-M. C. C., dated February, 1933, from the Mysore Chamber of Commerce, Bangalore.*

I have the honour to send you herewith six spare copies of the replies by the Chamber to the questionnaire issued by the Board in connection with the handloom weaving industry for favour of being submitted to the President and Members of the Board.

Enclosure.

**PROTECTION FOR HANDLOOM WEAVING INDUSTRY—TARIFF BOARD QUESTIONNAIRE
IN CONNECTION WITH ITS ENQUIRY INTO THE HANDLOOM WEAVING INDUSTRY
IN INDIA.**

Reply by the Mysore Chamber of Commerce.

1. The total number of handloom weavers engaged in weaving cotton and silk goods is about 34,000 in the State. Of these, about 8,000 persons weave only silk goods, 10,000 persons weave cotton goods mixed with silk and the rest weave cotton goods only.

2. The weavers obtain locally all the raw materials both Indian and imported required by them from the merchants who deal in these materials. The prices at which the raw materials are now available are shown below:—

Country Charka Rs. 4-8 to Rs. 5-12 per lb.
Mysore Domestic Rs. 7-4 to Rs. 7-12 per lb.
Filature Silk Rs. 8-4 to Rs. 8-12 per lb.
Canton Filature Silk Rs. 4-8 to Rs. 4-12 per lb.
Spun Silk Rs. 4-8 to Rs. 5-8 per lb.
Artificial Silk Re. 1 per lb.
Gold Tread (Foreign) Rs. 38 to Rs. 40-8 per marc.
Gold Thread (Surat) Rs. 21-8 to Rs. 33 per marc.

3. Before Silk Throwing Factories were started in the State, the Weavers as a whole were in the habit of purchasing raw silk from the local silk 'Koties' and getting the same locally twisted by indigenous methods, but at present most of the weavers purchase silk twisted in power driven throwing mills.

More than 50 per cent. of the weavers even to-day de-gum and dye the silk in their own houses, while the remaining get their silks dyed by paying charges to the local dyers.

Warps are generally prepared by the weavers themselves.

4. Weavers as a rule were using Mysore silk for both warp and weft until prices of foreign silk went down, but now more than 90 per cent. of the weavers on account of the cheapness of the foreign silk have taken to use the latter both for warp and weft; and only in some cases foreign silk is used for warp and Mysore silk for weft.

5. So far as Mysore State is concerned, the following are manufactured generally:—

- (1) Sarees.
- (2) Handkerchieves.
- (3) Suitings and shirtings.
- (4) Plain silk pieces for blouses and jackets.

Among these varieties, suitings and shirtings are manufactured on a limited scale and sarees are manufactured in most of the looms.

So far as the competition from outside is concerned it is felt keenest in the case of handkerchieves, suitings and shirtings and plain pieces.

At present some kinds of sarees are also being imported from outside into India which for the time being are not directly competing with the popular Indian sarees or conventional sarees. Yet, there is every possibility that the foreign countries now not manufacturing these conventional Indian sarees may also take up to manufacture these types of sarees and send the same over to India.

6. The Chamber understands that to weave a plain saree 8 to 9 yds. in length and 45" in width the time taken by a pit loom weaver is between 8 to 10 days while the shuttle loom weaver will take 3 to 4 days.

Some of the appreciably good sarees for example (cottonpet sarees) with body and border in different colours are only woven in pit looms and the time taken is 15 days for each saree.

7. The Chamber understands, that foreign silk is used mostly for the manufacture of sarees, handkerchieves. Spun silk is used for suitings and shirtings.

It is not possible to give the exact quantity of silk used in each of these cases.

But in the case of a saree measuring 9 yds. in length and 45" in width, the quantity used is about 1 lbs. of de-gummed silk or 2 lbs. of raw silk.

8. The sarees manufactured here vary from 6 to 9 yds. in length and from 34" to 50" in width, and in weight from 60 to 90 tolas.

Excluding the gold lace used, the approximate cost is about 7 annas per tola of finished goods.

9. Reliable statistics are not available on this point. But the Chamber believes that the total value of the annual production of this State is about 50 lakhs of rupees taking into consideration the number of silk looms which are about 8,000 in number all over the State.

10. In our State very little spun silk is used. What little spun silk is used, is for the manufacture of suitings and shirtings.

11. Yes. Weavers get silk from the merchants on credit, but the exact amount taken by the weaver from the merchants depends upon the weaver's credit with that merchant and other considerations. So far as, the period of credit is concerned, it is fixed generally between one to two months.

12. The local silk merchants are not the Agents of any Importers. They purchase the silk on their own account from the Importers at Bombay and sell the silk to the weavers direct in some cases and through retailers or weaver merchants in other cases.

13. So far as the winding qualities is concerned, Mysore Charka silk is not so good as the foreign filature or re-reeled silk but taking the other qualities into consideration, viz., lustre, strength tenacity and durability.

Mysore silk is decidedly better than the foreign silk. There is no difference of opinion in the matter of the innate qualities of the Mysore silk.

14. The practice in vogue here is that the merchants do not generally give silk and take back the cloth, but the merchant sells the silk to a weaver on credit debiting the cost of silk to the weaver's account. The weaver brings back the finished product when the value of the same is fixed and the weaver's account is adjusted. The balance, if any, is paid back to the weaver.

15. When artificial silk first came into the market, it had adverse effect on real silk. After some time, the masses realised that artificial silk goods had neither the strength nor the durability of real silk, and this relieved the situation a little.

16. In the case of ordinary handloom sarees, the approximate cost of manufacture is as follows:—

	For 2 lbs.
	Rs. A.
Raw material	10 8
Twisting and Winding charges	2 4
Dyeing charges	1 12
Weaving charges	8 0
Cost of labour and other charges	2 0
	<hr/>
	24 8

The above details are for an ordinary saree weighing not more than 60 tolas. But in the case of lace bordered sarees, the cost of manufacture would certainly be more. The cost of manufacture would vary according to the time taken for weaving, and the pattern or design required.

The weavers are paid on piece-work. They are paid Rs. 8 per saree of 9 yds. and for lace bordered sarees, they are paid extra.

18. There is a large local market for sarees. A large quantity of locally manufactured sarees is being sold in places such as Madras, Coimbatore, Ramand, Madura, Chettinad, etc., in South India and to a small extent in Bombay Presidency.

The weaver does not incur any charge over the cost of the manufacture as he does not sell it to the outside consumer directly. He sells it to merchant locally and it is the local merchants that export the goods to outside places.

19. The demand for natural silk is steadily increasing.

20. Mysore silk and imported China silks are used by the weavers.

In Mysore, 25 to 30 per cent. of the silk produced locally is consumed and the rest is being exported outside the State.

(4) Letter No. 3-M. C. C., dated the 2nd May, 1933, from the Mysore Chamber of Commerce, Bangalore.

With reference to question No. 17 of the questionnaire issued by the Board in regard to its enquiry into the Silk Weaving Industry which was not answered earlier for want of certain information required by the Chamber and with reference to the evidence given by the Chamber's Representatives before the Board, I am to say that the particulars required have just been received. I am sending herewith a note on the working of Sericultural Societies and Silk Weavers' Societies for the kind information of the President and Members of the Board.

I am sorry for the delay in furnishing this information which had to be collected from the Department concerned.

Enclosure.

NOTE ON THE WORKING OF SERICULTURAL SOCIETIES AND SILK WEAVERS' SOCIETIES.

There are 20 Sericultural Societies. They have a membership of 403 and a total working capital of Rs. 4,062. The Chief functions of these societies are the preparation and supply of disease free layings, purchase and sale of trays and other appliances required for rearing the silk worms, and sale of cocoons co-operatively. These societies are generally given small advances from the State Funds by the Co-operative Department at concession rates of interest. As sericulture is only a subsidiary industry to the Agriculturists, the financial help they require for the mulberry gardens is generally obtained from the ordinary village co-operative societies.

Silk Weavers' Societies.—There are societies of silk weavers at Bangalore City, Mysore City, Melukote and Gudibanda. These societies stock silk yarn and lace and other materials for sale to the weavers and purchase outright, or grant cash advance against, the finished products prepared by the weavers and the same are sold in the open market. These societies has a membership of 487 and a total working capital of over Rs. 1,16,480. They obtain the required finance from Government and the Apex Bank. During the year 1931-32 they sold raw-materials to the extent of Rs. 27,692 and finished products of the total value of Rs. 95,134.

Burma Indian Chamber of Commerce, Rangoon.

Letter No. G. L. 176/32-33, dated the 9th February, 1933.

With reference to your letter No. 5, dated the 1st/3rd January, 1933, forwarding a copy of the questionnaire prepared by the Tariff Board in connection with its enquiry into the sericultural industry, I am directed to send hereby the views of my Committee.

It is not possible for my Committee to reply to the various questions asked by the Tariff Board most of which are meant for those, who are directly engaged in the industry. My Committee propose to deal with the subject in a very general way.

At the outset I am to point out that the Sericultural Industry in Burma is in a purely experimental stage and in view of the aversion on religious grounds of a vast majority of the people to the killing of worms, which the production of raw silk necessarily involves, my Committee feel that its expansion on any appreciable scale appears to be only problematical. At the same time, the silk handloom industry in an important industry in Burma and according to the Census figures for 1921, the total number of workers and dependents in the silk weaving industry was 29,436. Moreover, the industry promises to be capable of expansion in view of the general habit among the Burmans to use silk even for ordinary daily wear provided the industry gets its raw material at a reasonable price.

Owing to the absence of production of raw silk in Burma as pointed out above, the handloom industry is entirely dependent for its raw material on imports from foreign countries and to a small extent from India. The following figures relating to the imports of raw silk into Burma will show how far she has to depend upon outside sources of supply:—

(1) Imports by land frontier routes.

1929-30.	1930-31.	1931-32.
4,798 maunds.	4,265 maunds	4,911 maunds.

(5) *Imports of raw silk and waste by sea from foreign countries.*

	Quantity.	Value
	lbs.	Rs.
1926-27	108,084	8,30,864
1927-28	105,922	6,14,701
1928-29	46,879	2,83,401
1929-30	49,846	2,98,880
1930-31	11,151	53,636

(3) *Imports of raw silk from India.*

	Quantity.	Value.
	lbs.	Rs.
1926-27	11,478	56,266
1927-28	8,118	46,937
1928-29	6,809	26,729
1929-30	4,266	8,216
1930-31 . . . . .	...	8,310

The exports of raw silk from Burma to India are not appreciable being approximately 7,000 lbs.

From the figures set out above, it will be evident that any increase in the import duty on raw silk would adversely affect Burma. If the interests of Burma alone were to be considered, a reduction rather than an enhancement in the import duty would be a distinct advantage.

Apart from what has been stated above, my Committee agree that the sericultural industry in India is in need of protection. But the conditions in Burma being quite different from those in India, my Committee are afraid that it seems difficult to reconcile their respective interests in this matter. As already pointed out, any increase in the import duty on raw silk with the object of protecting the Sericultural Industry in India would injuriously affect the Silk Handloom Industry in Burma. My Committee agree that the injury can be mitigated to some extent if there was a simultaneous increase in the duty on manufactured silk also. But any increase in the import duty on manufactured silk would raise its price and hit the consumers hard. The effect would be felt more keenly in Burma where, as pointed out above, silk forms the ordinary daily wear of a very large number of people and where its use is not confined only to the well-to-do people. The extent of the consumption of manufactured silk can be seen from the following figures of imports:—

Imports of manufactured silk from foreign countries.

	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
	Rs.	Rs.	Rs.	Rs.	Rs.
Silk yarn, Noils and Warps	2,165	477	..	158	30
Manufactured Silk-Piecegoods	53,22,948	52,90,670	41,12,615	32,90,816	23,02,752
Thread for Sewing and Other Sorts.	42,435	1,03,535	1,33,077	1,05,978	95,305

Imports of manufactured silk from India.

	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
	Rs.	Rs.	Rs.	Rs.	Rs.
Manufactured Silk Piecegoods and mixed silk.	17,429	15,571	2,075	16,585	16,844
Other Sorts	8,123	2,811	1,270	9,935	1,494

As compared to imports, the exports from Burma of manufactured silk are insignificant.

My Committee are strongly of opinion that in view of the consumption of manufactured silk on a very substantial scale as shown above, any enhancement of the import duty on same would adversely affect the consumers without conferring any benefit on Burma. Such an enhancement would not even help the Silk Handloom Industry as the duty on raw silk would simultaneously be raised.

There is one more factor which should not be lost sight of in considering the proposal for an increase in the import duty on manufactured silk. My Committee refer to the competition of artificial silk which has been keenly felt during recent years. Artificial silk is being imported in large quantities and it is not impossible that in course of time it would displace pure silk to a large extent. The following are the figures relating to the imports of artificial silk into Burma:—

Imports from foreign countries.

	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.
	Rs.	Rs.	Rs.	Rs.	Rs.
Artificial Silk Yarn	43,341	1,59,859	2,74,569	4,25,729	3,74,629
Artificial Silk Piecegoods	22,52,502	49,41,655	23,51,040	40,92,741	18,37,486
Other Sorts	87,974	2,64,748	1,67,713	1,24,663	1,60,824

Under the circumstances, my Committee believe that the best way of assisting the Indian Sericultural Industry would be by means of a bounty or subsidy although they realise that it is difficult to give effect to this suggestion in the present state of the Government of India's finances as also on account of constitutional issues involved in the fact that the sericultural industry in India is located mainly outside British India.

On the whole, it is the definite opinion of my Committee that from Burma's point of view, any increase in the import duty on raw silk would be distinctly injurious. If however, inspite of what has been stated above, the Tariff Board comes to the conclusion that such an increase is called for, my Committee submit it must be accompanied by a simultaneous and corresponding increase in the duty on manufactured and artificial silk also so that the Silk Handloom Industry may not be very hard hit. The consumption in such an event would certainly go down but there appears to be no other alternative.

The delay in sending this communication is much regretted.

Godavari Chamber of Commerce, Cocanada.

Letter dated the 16th February, 1933.

I beg to state that my Chamber has received a copy of the memorandum submitted to you by the Mysore Chamber of Commerce, Bangalore, regarding the problem of affording protection to the Sericultural Industry of India against foreign competition.

I am instructed by my Chamber to inform you that it supports the said memorandum in view of the facts and figures contained therein and to request that you will be pleased to favourably consider the question, of granting protection to this indigenous industry.

The Indian Merchants' Chamber Bombay.

Letter No. 681, dated the 2nd March, 1933.

With reference to your letter of the 3rd January, 1933, No. 5, I am directed by the Committee of this Chamber to send to you their views.

hereby on the questionnaire issued by the Tariff Board regarding the question of granting protection to the Indian Sericulture Industry.

The Indian Sericulture Industry is one of the few ancient indigenous industries of the country, mainly carried on as a subsidiary industry by the agriculturists, and affords some profitable employment to a considerable portion of the rural population of the country. It is not confined only to any one part of the country, but is spread over practically the whole of India—Mysore, Bengal, Kashmir and certain parts of the Madras Presidency being the principal centres of the industry.

Recently the industry has been experiencing great depression mainly due to the following causes:—

- (1) Higher prices of Indian varieties of silks, because of their superiority over the imported ones, and the consequent decline in the export of Indian products, such as raw silk, waste and cocoons.
- (2) Keen competition of the coarser and cheaper varieties of foreign raw silk with the Indian raw silk, which is much superior to the imported stuff, due to the great fall in their prices as a result of the fall in the Exchanges of China and Japan.
- (3) The Indian tariff of 25 per cent. on imported raw silks being too low to be of any practical help to the indigenous industry.

The total effect of all the above factors has been disastrous to the indigenous industry.

My Committee are strongly of opinion that the Indian Sericulture Industry fully satisfies all the three conditions laid down in para. 97 of the Fiscal Commission, and that the industry will shortly be driven to the wall, if an immediate relief in the form of adequate protection is not given to it. They therefore suggest that adequate protective duty be levied on all imported raw silks, to enable the Indian Sericulture Industry to withstand foreign competition successfully.

My Committee would like to take this opportunity of pointing out how necessary it is for the Provincial Governments of Madras and Bengal, wherein principally the sericulture industry has developed, to pay increasing attention to the improvement and development of the industry. It may be pointed out here that the Governments of Mysore and Kashmir are doing their bit for the improvement of the sericulture industry in their States, but nothing has been done, so far as my Committee are aware, in this direction by Governments of Madras and Bengal in their Provinces. My Committee, therefore, suggest that the Government of India should now take a lead, and that a Central Body, on the lines of the Indian Central Cotton Committee, should be set up to deal with problems regarding sericulture industry. This body should have a conditioning-house, like the conditioning-houses at Lyons in France and Zurich in Switzerland, and a staff of research workers to tackle questions of qualities and improvements necessary in the production of Indian raw silk, to grade and sort out on scientific lines the various types of raw silk.

My Committee trust, in conclusion, that the Tariff Board will be pleased to recommend to the Government of India the grant of immediate protection to the Indian Sericulture Industry by levying sufficient protective duties on imported raw silks.

Bengal National Chamber of Commerce, Calcutta.

Letter No. G. 1./10-M., dated the 10th March, 1933.

With reference to your letter No. 5, dated the 2nd/3rd January, 1933, I am directed by the Committee of the Bengal National Chamber of Commerce to send enclosed six copies of the Memorandum of written evidence by them on the question of Protection to the indigenous Silk Industry. The Committee

regret very much that they could not send the same earlier, as much time was taken in collecting the information from the different trade centres. They, however, hope that before coming to any conclusion, the Board will give their careful consideration to the points urged in the Memorandum.

Enclosure.

MEMORANDUM OF WRITTEN EVIDENCE SUBMITTED BY THE BENGAL NATIONAL CHAMBER OF COMMERCE TO THE TARIFF BOARD ON THE QUESTION OF PROTECTION TO SILK INDUSTRY.

Introduction.—The sericulture industry was one of the most important industries of Bengal even as far back as 1914. In fact, the industry was in a very prosperous condition during the Moghul period, and its lucrative character also attracted the notice of the East India Company in the early seventeenth century. Unfortunately, however, the industry has since fallen on evil days, involving the loss of employment to a very large number of rearers, reelers and weavers, who have necessarily to fall back upon land as their only means of subsistence. These people could be given a decent source of employment, if the industry could be revived again. The circumstances and conditions in India are quite favourable to the growth of the industry; suitable lands for the cultivation of mulberry, the inherent skill of the artisans and extensive home market invest the sericulture industry of India with special advantages satisfying the conditions laid down by the Fiscal Commission for the grant of protection to the industry.

As will be evident from the following answers to the Questionnaire, a large area of land is at present under the cultivation of mulberry, and if sufficient encouragement were given, more extensive areas can be brought under the scope of mulberry cultivation. Provided the agriculturists are assured of a decent return, there is no reason why they should not give up the cultivation of other crops like jute which particularly at the present moment have become wholly uneconomic from the point of view of the cultivators. In the second place, the artisans should be given training in scientific methods of production and should be induced to take to more up-to-date appliances in order that they may become as skilful as those in other countries and thus be able to compete with the latter. Thirdly, adequate attention will have to be paid not only to the organisation of production but also of marketing, so as to eliminate the evil influence which the middlemen exercise over the poor artisans.

Last but not the least of all is the necessity to assure the industry of a steady existence, if not of expansion, against the menacing competition of foreign silk and artificial silk. A mere glance at the figures relating to the export and import of silk, would convince the Tariff Board as to the steady increase of the imports of silk and artificial silk from other countries, particularly Japan into India and the rapid pace of the decrease of the export of raw silk from the country. No more eloquent testimony could be furnished as to the steady deterioration of the industry in India.

Recently the competition from Japan has become particularly menacing, not only because of the depreciation of Yen, but also because of the sale of Japanese goods below the cost of production. The potential injury which can be inflicted on the local industry due to this factor was recognised by the Tariff Board themselves in July last year, when they recommended emergency measures to be adopted in order to enable the cotton textile industry to compete with the Japanese cotton piecegoods.

The Committee of the Chamber believe that these facts, supplemented by the detailed answers to the Questionnaire issued by the Board will be sufficient to establish the case for the sericulture industry of India for protection against the imports from foreign countries, and they hope that on a due consideration of the relevant data, the Tariff Board will recommend the grant of effective protection to the industry.

PROTECTION TO SILK INDUSTRY.

Answers to Questionnaire by Tariff Board.

1. *History.*—The introduction of Silk Industry in Bengal is said to be made by bringing the Cocoons and the Mulberry trees from China through Burma. It is not exactly known how long the industry has been going in the Province, but this much can be said with certainty that the industry was prosperous in Murshidabad even during the reign of the Mogul Dynasty, and that when the East India Company settled in the said districts, they came to know of this lucrative industry. From this time henceforth several European Companies established factories with Filatures and controlled the whole of the industry.

Area.—It is believed that 75,000 bighas of land in Bengal are at present under Mulberry cultivation.

People dependent (a) entirely and (b) partly on silk-worm rearing and reeling of their livelihood—About 30 lacs of people more or less.

2. *Organisation of Bengal Silk Industry.*—Scientific method is adopted to rear the mother stock from disease-free seeds and the experiments made by the Sericulture Department are said to be of great value in this respect. Of the total demand of seeds in Bengal which is over one lac kahons, about one-third is contributed by the Government Nurseries and the rest are entirely village seeds supplied by the village rearers who keep mother stock for reproduction.

Finance.—In Bengal, rearers are generally very poor and have no sufficient means for the purchase of seed cocoons. In villages there are various brokers, who advance money to them, and these brokers are generally found to be up-country men who while giving loans make condition with the borrowers that the latter must sell the entire production of cocoons from the above seeds to the former. The rearers are thus very much handicapped as their privileges of selling the cocoons to the highest bidders are taken away. In the next place, these Mahajans and the brokers sell the cocoons to the poor reelers to whom they also often advance money on condition that the former must sell the raw silk to them and to no body else. Hence the reelers are also barred from the privileges of selling the raw silk to the highest bidders. The next stage is the production of silk cloth and the weavers, the majority of whom are very poor and get their supplies through the middlemen on credit suffer from the same handicap as they have also to sell their finished products to their financiers at whatever price the latter may care to pay, or in the alternative to pay enormously high rates of interest. Thus it is clear that in almost all the stages, the artisans being mostly poor have no other alternative than to content themselves with a very small margin which is hardly sufficient to make both ends meet, in consequence of which they have usually to run into debts. The situation has been rendered extremely complicated as the menacing competition of Foreign silk has become detrimental to their progress and is even threatening their existence.

Marketing.—Proper organisation of marketing can go a long way towards removing these difficulties. The supply of disease-free cocoons should be increased and the rearers should be trained in proper rearing method. Unless the rearers are trained, there is no prospect of putting the industry on a sound footing. Equally, if not more, necessary is to free the producers, reelers and weavers from the clutches of the Mahajans and, in this connexion, loans on easy terms by the Government and the Co-operative Societies (which should be established in far larger numbers than at present) will be of considerable help, as a successful working of this scheme would facilitate the elimination of the Mahajans and the Marwari middlemen. In the next place, considerable experience is necessary in purchasing silk fabrics and this can be obtained by a close study of the market. Fashions and fancies are ever-changing and demand increasingly greater skill and technical knowledge on the part of the manufacturers to invent designs to suit the taste of the people. The manufacturers must have skill and technical knowledge on all these points. Further, the operative capacity of our handlooms are very slow, and if the artisans are help-

ed with Government bounties or by the Co-operative Societies or Depots or by a Central Depot, they can purchase the present improved patterns of handlooms on scientific basis which will yield a greater output.

3. *Maximum Production of Cocoons.*—It is estimated that on 75,000 bighas of land in Bengal, about 1,25,000 maunds of Cocoons are produced.

From 1,25,000 maunds of Cocoons, approximately 8,215 maunds of raw silk are obtained.

4. *Nistari and Chhotopolu.*—The Cocoons of both the species yield almost the same quantity of silk, but the latter is superior to the former in reeling. Silk content is about $2\frac{1}{2}$ to 3 seers per maund of cocoon, in addition to about $1\frac{1}{4}$ seers of waste silk per maund of cocoon of both these varieties. The Chinese and Japanese cocoons weigh 3 times more than the Cocoons of the above two species which are reared in Bengal.

Closing of Filatures.—Yes some Filatures of European Companies in India have closed down for want of adequate supply of Indian Cocoons.

5. Two kinds of silk-worms are reared in Bengal (*vide* answers to question 4). These two species are multivoltines. The eggs hatch out within 8 to 10 days from the date of their laying by the moths. In the morning generally, they commence hatching and as soon as this is done, the worms are taken to a clean tray where a piece of white paper is spread on, and finely chopped young leaves are spread over them. They then get on these leaves and begin to eat. All the eggs do not hatch out the same day. In Bengal, 3 days are taken to complete hatching, and in cold climates, 6 to 8 days. Each day's hatching should be reared on separate trays, as it is essential to have uniform size on the same tray with a view to regulate diet.

For 4 to 6 days, according to the season, the worms are fed with chopped leaves at 6 hours' interval, and then they are seen to remain torpid having lost their appetite. At this time their skin appears to be shiny and yellow. When they come to this stage, they must not be given any food and must not be disturbed. This is the time of their moulting, and it takes about 24 to 36 hours for the same. The old skin is left on the leaves; the worms then give signs of movement to their satisfaction, stretch out their bodies and remain quiet for a short time. Thus their skins become dry and hard and get habituated with the contact of air. This moulting period is very necessary and care and great precaution must be taken, as the success of the crop depends upon this precaution.

Each moulting period is called an *age*, and after the first is completed, they enter into the second age. Then a soft net is spread over and the whole leaves are placed on the net. The worms crawl over through the meshes of the net and get on the leaves and begin to eat them. Then slowly the net is removed to a separate tray with the worms, with a view to clean the litters and the moulting from the first tray. In this second age leaves are given at 6 hours' intervals, and it takes 3 to 5 days to complete the process.

After the second moulting, the worms take on the colour and the form which continue till the remainder of their larval life. As the worms grow bigger from this age, large leaves are given with seems of mulberry plants. Daily cleaning of the trays similar to the aforesaid process is necessary. This period takes 4 to 6 days.

Then they enter into the 4th and 5th ages. Everything is similar to the above with the exception of heavier food being substituted. These heavy meals are given at 8 hour's intervals. After the fourth moult the worms enter into 5th age and show great voracity. This age lasts from seven to ten days. Now the appearance of the worms become golden and creamy and they give up eating. They are now said to be ripe and are prepared for spinning and, therefore, they are removed to chandraki where they begin to spin cocoons.

6. *Construction of Rearing Rooms.*—Generally it is found that the rearers construct the rearing rooms in the following manner:—

- (1) They construct thatched huts looking like a two-storied building, keeping the sides of the top portion open.

- (2) Windows are scarcely required.

The rearing houses are constructed in this way in order to allow contamination and hot air, which is breathed by the worms and mixed with the surrounding atmosphere, to pass over through the opening above.

- (3) *Partition*.—Each room is partitioned into two the entrance room being smaller and the bigger one being used for keeping the worms for rearing purposes. The small room is utilised with a view to allowing parasytic silk-worm and any other germs stop therein and for this some sort of arrangement of food is made. The entrance to the small room is by a door kept outside but in entering the big room through the small room the rearers are to pass through a door covered with wire netting. In this big room the worms are kept on bamboo racks or frames specially constructed for the purpose.

Cost.—About Rs. 30 for each room; the Government generally grants Rs. 400 for the construction and equipment of an entire rearing house on the improved scientific methods.

Durations.—3 to 5 years.

(b)

Race of Variety.	Number of days.	Number of cocoons to a lb.	Length of Filament.	Denier.
			Meters.	
Nistari	40—90	675	210	1½
Chhotopolu	42—90	675	215	2
Endi	14—20	700	Short of Filament can only be spun and not reeled.	

7. Mainly the same, but differs in the case of Professional rearers. They must buy seed cocoons and not eggs.

8. The worms are reared from local seeds. The production of seed is organised separately from the production of cocoons.

Present Rate.—Average Rs. 2 per kahon (1,280) of seed sold from the Government Nurseries to rearers.

9. The worms are mostly multivoltine, of both Nistari and Chhotopolu varieties; there are about 8 or 9 crops a year.

Univoltine race is reared up in a few parts, but that is on a much smaller scale.

From one ounce of seed 40,000 cocoons may be produced.

31 kahons will produce about 2 seers of raw silk.

Of the multivoltine races, Chhotopolu produces better silk for the industry in the November crop. Attempts are being made to extend Bara Polu in Government Nurseries; it is desirable that it should be reared more extensively, as it yields filament which produces reeling silk of a very fine quality. And this silk was largely used in the handlooms when the silk flourished in Bengal.

10. The silk-worms are fed on Mulberry leaves. Some persons cultivate mulberry plants on their own land, while in some cases plants are grown on leased lands; some breeders also buy leaves. To prepare a waste land, the initial cost of cultivation is not less than Rs. 200 and the recurring expenditure is about Rs. 75 per acre per year. This cost is incurred when scientific method

is adopted; but it often happens that the rearers being also labourers, cultivate their lands themselves; the average cost in these cases is Rs. 30 to Rs. 40 per acre per annum.

Manure.—Generally rearers use *Bhods* (a kind of water weeds) extensively for manuring Mulberry plantation. Besides this, they also earth up the rows of Mulberries every year. These two operations cost about Rs. 30 per acre. In Government Nurseries manure made from all refuges of the firm is used for the improvement of the soil. The debris from the silk-worm rearing trees are collected in a pit and used when thoroughly decomposed.

Trees and Bushes.—Approximately tree Mulberries are planted about 10 feet apart and Bush Mulberries are planted in rows at 18 to 26 inches apart. This is the prevailing system of plantation in the silk rearing centres.

Yield of leaf from Bush plantation per acre is from 75 to 80 maunds per year, and from tree plantation about 1 maund per tree per acre in a year.

Life of Bush.—With the proper earthening and cultivation, the Bushes live for years until annual leaf supply becomes very scanty when the plantation is uprooted and new cuttings substituted.

Life of tree.—Life of tree cannot be ascertained. It continues for a long time. It does not naturally die unless it is damaged by storms or by insects.

Quantity of leaves necessary to rear one ounce of layings is on an average from 16 to 20 maunds per crop, and the average cost incurred by the breeders is about Rs. 10. One of the great advantages of Mulberry plantation is that it is not planted every year as other crops are done; for, once it is planted, it does not usually die for a number of years.

12. Attempts are being made to reduce the cost and improve quality and quantity of the yield, by extension of tree Mulberry and selection of heavy yielding varieties.

13. Normally rearers lose about 10 to 15 per cent. of the worms in each crops due to insufficient and insanitary accommodation and also due to want of proper regulation of diet, i.e., over-feeding and under-feeding, etc., while under abnormal weather condition, when epidemics break out in a virulent form, they lose about 75 per cent. of the worms, just before spinning the cocoons in each crop.

14. *Diseases.*—(1) Pebrine, (2) Muscardine, (3) Flacherie and Grasserie.

Causes.—Due to abnormal temperature, insufficient and insanitary accommodation, bad feeding, etc.

Protection.—Naked eye selection of seed cocoons for the re-production. Selection of each mother moth by microscopic examination of body fluid. Disinfecting the rearing rooms and implements and also regulating temperature by artificial measures.

15. Yes, climate has greater influence over the insect world than with any living being in the world. Owing to the climatic change of weather, the insects remain inactive almost one-third of the year, as they are unable to regulate their temperature like the warm blooded animals, and hibernate in places suited to their constitution. They begin their new generation with the approach of favourable conditions afforded by the season. But the case of multivoltine silk-worms is different as they are reared up throughout the entire year by the artificial regulation of their temperature and by devising means of protection from weather operation and thus they remain active throughout the year. With reference to answer to question 6 (b), the number of days is very much prolonged taking 90 days in cold season.

Bengal has an ideal climate for silk-worm rearing; in all her climates crops are obtained and silk-worms are reared, and 8 to 9 crops are obtained in a year where Japan gets 4 crops and other silk producing countries have only annual races.

16. 31 kahons approximately.

17. 31 kahons of cocoons are produced for the purpose of reeling from one

ounce of eggs, and from these 31 kahons, 2 seers of silk are obtained, the cost of which is Rs. 20 more or less.

One ounce of eggs may be laid by one hundred moths, and the price of the seed cocoons at the Government Nurseries is 3 annas and $1\frac{1}{4}$ pies. The proportion, therefore, of the mother stock is 100 : 31 : 1,280, approximately.

Out of the above, about half the amount of laying are selected for those that live longer, having had no traces of any kind of diseases. During rainy season, a large number is rejected as the moths die quickly in the Government Nurseries.

19. The first part of the question can be answered from the commercial point of view.

It solely depends upon the advantages and disadvantages of the breeders.

Better organisation in marketing methods should enable them to sell their cocoons as soon as possible, as particularly during the rainy season they will not be able to keep them till the prices suit them (breeders).

22. Now-a-days Rs. 5 will do for the cost of implements under old methods which are still seen to be prevalent in several silk centres. They may last for 4 years.

29. If worked in one reeling machine, 4 persons are required for reeling, twisting, boiling cocoons, collection of fuel, etc. Out of 4, one skilled person will do for reeling cocoons.

About a period of 6 months is taken for an untrained labourer to become a skilled one.

Adequate supply of skilled labourers is available in the silk centres. In many parts of Bengal, it is found that there are some people who rear silkworms, cultivate mulberries at some time or other and this proves how very wide-spread the industry really is.

30. (i) At present the wages of a skilled labourer in the silk producing centres is from annas 4 to annas 6 per day.

(ii) Foreign silk is purchased at annas 8 per yard, the minimum rate, as compared with country produced silk sold at Re. 1 per yard. This is due to the improved method of better finishing of silk yarns and reeling in foreign countries as also to the defects in the organisation here in Bengal. Further, it is due to almost discontinued cultivation of superior annual races which used to give best reeling silk. Indian labourer is not really inefficient, but he has greater difficulties to surmount, he is comparatively poorer and not as educated as the same class of people in Japan, Italy and France.

(iii) In Bengal, the Sericultural Department has started two schools for imparting training in the scientific method of rearing, as compared with about 400 Schools in Japan.

37. The various industrial uses of raw silk are as follows:—Cloths, Embroideries, Hosiery, Cables for electric purposes, silk cartridge bags, Balloons, Parachutes, various surgical uses, etc.

38. The production of raw silk has been considerably reduced during the last two years. This can be clearly demonstrated from the phenomenal decline in the export of Indian silk, both raw and manufactured to other countries and the simultaneous increase in the imports of silk yarn and piecegoods from foreign countries during the last few years. Silk and artificial silk from foreign countries are finding more extensive markets in India due to their being sold considerably cheaper than local silk. The Committee believe that if the production of Indian silk in larger quantities could be encouraged, the price of the local product will be automatically lowered and foreign silk and artificial silk will no longer be able to compete with indigenous silk industry.

47. In Bengal pure Japan silk is sold at annas 8 per yard and China silk at annas 10 per yard, but the country-made silk cannot be sold at less than Re. 1 per yard.

49. So far as the Committee of the Chamber are aware, no attempt has yet been made to utilise the waste silk in Bengal.

51 and 52. Comparative cheapness of imported silk and importation of artificial silk to the country. The extension of the cultivation of jute is also responsible to some extent as it has replaced or occupied some lands where formerly mulberry cultivation was made. As the silk was not so paying as compared with jute, the rearers have abandoned the cultivation of mulberry in some parts of Bengal.

56. (A) Bengal has abundant supply of raw materials, suitable climate all the year round for rearing silk-worms, comparatively cheap power, very good supply of cheap labour, and large home market in the shape of cottage industries.

(B) Unless protection is given to the rearers, reelers, and weavers, there is no hope of reviving the silk industry in Bengal. The cause of the decline of the sericulture industry can very easily be gathered, from the observations made in answer to question 2; middlemen who are predominant in the organisation of the silk trade and industry, do not look to the interests of the actual workmen engaged therein; while the imports of foreign silk (raw), foreign silk yarn and piecegoods at a very low price, often below the cost of production, are practically ousting the indigenous industry from the market. If the influence of these middlemen can be minimised and protective tariff is imposed on the imports from other countries, then it is expected that Bengal can beat down the latter even with her present stage of production of raw silk, as she really possesses innumerable natural advantages. There is an extensive home market in India both for the raw silk and silk yarn spun locally. The Indian cotton mills have for the last few years been using Indian silk in preference to foreign silk, while the silk-weaving industry is also potentially capable of consuming a large quantity of silk yarn, provided it has not to meet unequal competition from abroad.

(C) Bengal silk industry can eventually be able to face world competition with protection and other forms of state aids as can be found feasible and as is done in all other silk producing countries in the world.

57. (a) It is difficult to say what amount of protection would be necessary, but the Committee hope that the materials before the Tariff Board will enable them to fix the amount necessary.

(b) The Committee have already stressed the necessity of increasing the duty against Japan with a view to protect Indian silk Industry, while the Committee would also like, in this connection, to stress the necessity for giving to the rearers, reelers and weavers sufficient financial help, either by Government bounties, or by the establishment of a large number of Co-operative Societies in the silk producing centres.

(c) The Committee would also prefer to leave this question to be decided by the Tariff Board after investigation.

58. *Handloom Industry.*—The effect of the protection given to the sericulture industry would no doubt be to increase the cost of production of the Indian silk handloom industry, but the Committee strongly believe that the latter also adequately deserve protection against the import of foreign silk manufactures. They take this opportunity of pointing out that it is a matter of deep regret that the question of giving protection to this industry has not been referred to the Tariff Board for investigation. Large imports of foreign silk and artificial silk are making it practically impossible for the silk weaving industry to stand in competition with foreign countries, but there is no reason why it should not be able to compete, provided sufficient encouragement is given to it. For one thing, the extensive demand for silk fabrics provides enough scope for an expansion of the industry.

Bengal was once famous throughout the world for the flourishing condition of its silk handloom industry. The encouragement of handloom industry in improved form will pay sufficiently, and its revival will remove the poverty of the country and will be a great source of wealth.

As regards other industries, the Committee believe that the small industries connected with silk rearing will also flourish. As instances of such small industries may be mentioned the following :—

- (1) Bithar—those who make spinning trays, dallas, baskets, etc.
- (2) Carpenters—who are engaged in making reeling machines, looms and other implements connected with silk rearing.
- (3) Blacksmiths—who are engaged in preparing plough and agricultural implements.

Another off-shoot of the grant of sufficient encouragement to the industry would be that the problem of unemployment also will be solved to some extent.

59. Cloth made from 1 seer of raw silk will fetch a price of about Rs. 24 more or less at the present market and the silk yarn will about Rs. 12 per seer.

Rs. 12 : 4 : 20. Raw silk Rs. 12 per seer. Cloth made from it Rs. 24.

Messrs. Gobhai Karanjia, Limited, Bombay.

(1) *Letter dated the 14th December, 1932.*

It had been brought to the notice of the dealers of raw silk that a representation has been made to the Government of India, to enhance the duty on raw silk, imported from China and Japan. The apparent argument advanced is that large imports at low rates kill the indigenous industry. On that account, it is reported that an enquiry is to be held by the Tariff Board.

In the first place, we do not understand why should the Government of India hold an enquiry for an industry, for which British India has little or no concern. Why should the Government of India intend to give protection to the Native States at the expense of British tax payers and British consumers. You must be well aware that this industry is being principally carried on in the Native States of Mysore and Cashmere. In British India itself, this industry is almost non-existent, but for a small strip of land which could easily be ignored in the Madras Presidency adjoining Mysore. In other parts the industry is negligible. We are not aware that any enquiry for the protection to Indian Native States has till now been held by your Board.

Another question arises, why so much noise should be made for imports which approximate only to a crore of rupees and during the last two years much less. Also it must be considered that the production in India approximates also to the same amount and ninety per cent. of that is in the Native States. The Government is well aware of the import duty on raw cotton from America and Egypt. Such cotton is mainly used by Ahmedabad mills and imported through Bhavnagar. The duties go to the revenues of the Indian States, while actual cotton is consumed in British India and the British tax payers are unnecessarily penalised. Also if the import duty is enhanced on raw silk the consumers as well as the handloom weavers will suffer for the benefit of the Indian Native States. We hope, the Government will not fall into the same error in the case of raw silk.

Moreover, the climate as well as the soil of most parts of British India is unsuitable for the sericulture industry, so why this hurry to give protection to a practically non-existent industry which could not appreciably be expanded in British India.

The quality of raw silk produced in Cashmere and Mysore is of a very superior kind. This could not come in conflict with the bulk imported from the East. This consists principally of lower grades, more suitable to the Indian handloom industry for mixing and producing the requisite quality of cloth, mainly used in India. Therefore if the duty is enhanced, it will not benefit the Indian industry but will seriously affect the already hard hit handloom weavers.

The disastrous economic conditions in China as well as the Japanese aggression and consequent economic ruin due to the destruction wrought in several parts of China have largely brought about the decline in rates of raw silk. If

to this is added the absence from the market, due to keen depression, of America and Europe, the principal purchasers of superior grades of raw silk, the unprecedented fall could easily be surmised. China could not be compared to Japan, for dumping goods by depreciating exchange. The Chinese exchange, dependent on silver, is 50 per cent. higher than that of the previous year and with the improvement in trade it is bound to appreciate further. The principal imports nearly 90 per cent. are from China, so in the case of raw silk, argument for dumping could not be advanced.

All advices from China indicate that the present rates of raw silk are extremely uneconomic. With the slightest improvement in world conditions, the rates of raw silk must appreciate. All these conclusively prove there is no need to raise the rate of duty.

Finally, a glaring fact presents itself. The Indian silk producers till 1929 were quite indifferent to the local sales of raw silk. Nearly 75 per cent. of their products were exported. Since 1929, this sudden wave of patriotism have filled their minds. The reason is obvious. Up till 1928, the rates of raw silk were very favourable and there were ready foreign purchasers of this Indian commodity at remunerative prices. Therefore the Indian producers were satisfied as they reaped high profits. After 1928, the prices in the East gradually depreciated due to lack of support from foreign countries. The Indian producers found the rates offered by their foreign friends to be extremely unremunerative, therefore they were compelled to sell the goods locally. Of course, in comparison with the world ruling prices, they were unable to reap the same profits as before. So instead of decreasing their rates according to the general economic conditions, they have got up this ingenious clamour for protection, so that the margin of profits may be maintained. Protection in this case means nothing else but crushing a large number of poor handloom weavers, for the sake of few who did not at all care for them in times of prosperity.

Considering all these circumstances, we are sure you will be convinced that there is absolutely no need for an inquiry. The whole representation seems to be got up by one or two interested parties.

(2) *Telegram No. 286, dated the 22nd April 1933, from Mr. Karanjia, Bombay.*

"Artificial Silk goods and mixture imported are of numerous qualities stop Unable to give all prices stop Chief imports tafeta flower fifty-five pies per yard stop Weight nine yards per pound stop Other varieties ranging from sixty pies to ninty pies per yard stop Weight five half yards to seven yards per pound stop Mixture with pure silk prices vary from ten annas per yard to twenty annas per yard weighing five to ten yards per pound, Karanjia."

(3) *Letter dated the 23rd April, 1933, from Messrs. Gobhai Karanjia, Ltd., Bombay.*

I duly received your telegram reading 'wire recent market prices of artificial silk goods and mixtures also state how many yards in a pound'.

As artificial silk goods and mixtures imported are of numerous qualities and many different varieties, I could not enumerate them in my telegram sent to you last night. I wired you as per copy enclosed and now give below for your information a few of the many qualities chiefly imported:—

Weight.
Yds. per lb.

All Artificial Silk Goods—

1. Tafeta flower, 27" × 30, market rate As. 4-7 per yard . 9
2. Ichiobi light and dhoopchow, 27" × 25, market rate As. 5
per yard 7
3. Tafetta flower, 44" × 30, market rate As. 7-6 per yard . 5½
4. Satin plain, 27" × 30, market rate As. 6-8 per yard . 7½
5. Palace flower, 27" × 30, market rate As. 8 per yard . 7
6. Georgette plain, 45" × 25, market rate Re. 1-2 per yard . 5

Weight.
Yds. per lb.

Artificial Silk with Pure Silk Mixtures—

1. Ichiobi light colours 27"×25, market rate As. 10	
per yard	10
2. Nichiobi, 27"×25, market rate As. 14 per yard	5
3. Sanchobi, 27"×25, market rate As. 15 per yard	5
4. Chirimin plain, 45"×25, Re. 1.3 per yard	5

I sincerely trust the above particulars will satisfy your requirements, and it will interest you to know that since the enhancement of duty on artificial silk and artificial silk mixtures to 4 (four) annas per square yard or 50 per cent. whichever is higher, imports of these are gradually falling low and as far as I understand only a very small quantity of new business has been put through in Japan. Prices in Bombay and in up-country Indian markets have so far not responded to the increase in duty, which works out from 85 per cent. to 120 per cent. Japanese manufacturers have reduced their prices by about 10 per cent. and it seems they cannot see their way to reduce further, and at to-day's cost would mean 10 per cent. to 15 per cent. loss on imports if ordered. It seems to me that there is no likelihood of this big gulf of difference in prices to be bridged in the near future. I anticipate a big decrease in Government revenue and a big fall in customs returns.

I also bear that transshipments and shipments to Kathiawar ports continue more freely and they require to be watched.

If by your report or in consequence of the anti-dumping Bill any increase made in import duties, will ruin the entire trade in pure silk and artificial silk goods, as even the present duties are considered to be exorbitant.

With kindest regards.

F. M. Abdul Quddus, Esq., Channapatna, Mysore.

(1) *Letter dated the 16th December, 1932.*

I beg to submit, for favour of your kind consideration, the following Memorandum on the improvement of Silk Industry in India in general, and Mysore in particular, and the advantages and disadvantages that will accrue from the levy of a Duty on imported silk yarn and cloth.

1. The Protagonists of the Duty have ignored the following fundamental facts:—

- (a) India was never able to meet her demand of Silk. Of the seven crores worth of silk consumed, only four crores worth was produced by her (Mysore 1, Bengal 2 and Cashmere 1), and she has always imported the balance.

It may here be noted that the supply of Bengal began to decline from about 1910 and her present supply is not much.

- (b) A very large number of looms is entirely dependent on cheap foreign silk yarn, and an increase in the price of the yarn will paralyse this thriving Industry.
- (c) But for cheap foreign stuff, silk would be a luxury which only the rich could afford. An increase in the price would close down this new demand for silk from the middle and poor classes, and the present flourishing trade would be stifled.
- (d) The present prices of Indian silk compare very favourably with those that prevailed before the War. The prices during and after the War were quite abnormal; and artificial means to put up the present prices to that level are bound to fail.
- (e) The depression in silk trade was also largely due to two other

commercial crops and the Sericulturists replaced Mulberry by the more profitable ones; secondly, the wages of the agricultural labourer rose, and the sericulturists found it impossible to employ this costly labour. But this state of things has now changed.

- (f) Sericulture is more fitted as a cottage industry than a factory one, and it is the only Industry that provides the agriculturist with work during his spare time.
- (g) Sericulture is the most profitable commercial crop for the ryot, comprising, as it does, agriculture, industry and trade in its sphere.

2. The causes for the backwardness of the silk trade are not foreign dumping and competition but serious drawbacks in the Industry itself. The more important of them are as below:—

- (a) While foreign yarn, being re-reeled, is quite even and fit for immediate use in the loom, Mysore yarn is full of knots and requires further treatment—such as throwing, twisting and re-reeling—before use in the loom.
- (b) Unlike foreign yarn, the Mysore yarn is neither sorted nor graded.
- (c) The supply of Mysore yarn is neither steady, nor adequate to the demand.
- (d) If the abovementioned defects are removed from Mysore silk, it would be the best; for it takes colour and has shining and strength.

3. The remedy, therefore, is not an imposition of Duty on imports, but an improvement of the Industry in the following directions:—

- (a) More mulberry must be grown by the gardens being provided with wells or tanks, thereby making them yield 7 to 9 crops a year, instead of 4 crops which they yield when dependent upon rain. As a means of increasing the supply of mulberry, the conversion into mulberry topes of all Government waste lands would be a salutary measure.
- (b) The rearing of silk-worms should be improved by a constant supply of an adequate quantity of disease-free eggs and by keeping them healthy in all their four stages, and thereby ensuring strong and good cocoons.
- (c) The yarn should be thrown, re-reeled and twisted before being put in the market, thereby securing good price to the rearer and good wages to the Reeler and providing the weaver with yarn quite ready for the loom.
- (d) Yarn should be sorted and graded and a steady and sufficient supply ensured to meet the demand of the market by starting more silk-twisting classes.
- (e) A sericultural bank should be established to finance sericulturists with a view to obviate the many difficulties to which they are put in raising funds, especially to enable them to store silk for such a long period and in such large quantities as would enable them to export it and profitably compete in foreign markets.

4. Before concluding, I may be permitted to state—

- (a) that my great grandfather revived sericulture in the State in 1802 with the help of Dewan Purniah, and established trade in 1820;
- (b) that my family—known as the **MASTAN FAMILY**—spared neither money nor pains in improving the Silk Industry in the State;
- (c) that it helped the Italian Expert—Major D'Veeche—from 1860 to

- (d) that, from 1894 to 1900, it co-operated with Mr. J. N. Tata of Bombay in working the well-known Silk Farm at Bangalore to improve reeling;
- (e) that it induced (1905 to 1907) Mills like the Sassoon and Alliance Silk Mill of Bombay, to use for weaving Mysore silk and silk-waste in place of Japanese stuff;
- (f) that it concerted measures to prevent and cure diseases affecting cocoons with the co-operation of well-known firms, like Hashim Arif Brothers & Co., of Bengal Silk Mills Co., Calcutta;
- (g) that it gifted in 1915 lands and buildings to Mysore Government for the establishment of a Central Silk Farm at Channapatna and gave more lands for its improvement in 1918 and 1930.

Besides serving as a Member on the Economic Conference, Representative Assembly, District Boards and Municipalities, I have actively co-operated with the Sericultural Department, first as Honorary Supervisor from 1917 to 1921 and then as Honorary Assistant Superintendent since 1929. In these capacities, I have founded several schools for imparting instruction in silk-twisting and re-reeling to meet the demand of weavers for ready-made yarn, and thereby compete successfully with foreign silk.

5. In these circumstances, my conclusion is that the imposition of a Duty on imported silk is not the panacea for the present trade depression and that only an all-round improvement in the Industry will yield the desired result. But an adequate increase in the levy of the Duty, both for yarn and cloth, till the present conditions of the Industry improve, is bound to give a stimulus to sericulture and hearten sericulturists. I have not taken into consideration the present world depression.

6. I cannot conclude this Memorandum without expressing my gratitude—nay, of every sericulturist—to two great Dewans who have made the Industry what it is now, SIR M. VISVESWARAYA who started the Sericultural Department and took a personal interest in its welfare, and SIR MIRZA M. ISMAIL who realised the importance of silk-twisting, so long back as 1929, as the only way to overcome foreign competition and revived the silk-twisting schools for the purpose.

Enclosure.

Statement showing the prices of Mysore silk during a century from 1832.

Year.	Price per seer.			Remarks.
	Rs. A. P.			
1832 . . . 7½ Phanams, i.e.,	2	4	0	One Phanams is equal to As. 4-8.
1842 . . . 4¾ Phanams, i.e.,	1	6	2	
1852 . 7 Phanams, (3 annas), i.e.,	2	3	8	
1862	2	12	0	
1872	4	8	0	
1882	4	8	0	
1892	3	2	0	
1902	4	8	0	
1912	5	3	0	
1914, January	4	10	0	Before the Great war began.
1915, January	4	4	0	During the war.
1916, January	4	4	0	Do.
1917, January	5	12	0	Do.
1918, January	7	2	0	Do.

Year.	Price per seer.			Remarks.
	Rs. A. P.			
1919, January	5	11	0	War ceased but boom continued.
1920, January 1st	7	11	0	Do.
1920, January 21st	8	0	0	Do.
1920, January 24th	9	2	0	Do.
1920, August 31st	9	13	0	Do.
1921, September 14th	8	12	0	Do.
1922, August 16th	10	5	0	Do.
1922, October 21st	9	3	0	Do.
1922, December 8th	8	5	0	Do.
1923, August 16th	8	12	0	Decreasing.
1925, January 1st	6	5	0	Do.
1926, January 1st	5	8	0	Do.
1930, January 3rd	4	12	0	Normal between Rs. 3-4 and Rs. 4-8.
1931, January 3rd	3	11	6	Do.
1932, January 1st	4	10	0	Do.
1932, February 1st	4	12	0	Do.
1932, March 1st	4	10	0	Do.
1932, April 22nd	4	10	0	Do.
1932, May 4th	3	14	0	Normal.
1932, June 1st	3	8	0	Do.
1932, July 1st	3	2	0	Do.
1932, August 1st	4	1	0	Do.
1932, September 3rd	3	2	0	Do.
1932, October 3rd	3	2	6	Do.
1932, November	3	5	0	Do.

NOTE.—It will be seen that inspite of the so-called dumping of foreign silk, from June, 1932, the prices of Mysore silk have been within normal rate.

(2) Letter dated the 31st January, 1933, from Mr. F. M. Abdul Quddus, Silk Merchant, Chennapatna.

I beg to send herewith six copies of my replies to the questionnaire kindly sent me by you in connection with the Tariff Board's enquiry into the Silk Industry.

Enclosure.

SERICULTURAL INDUSTRY.

Answers to Tariff Board's Questionnaire (By F. M. Abdul Quddus, Silk Merchant, Channapatna).

1. The History of Sericulture in Mysore dates from the Reign of Tippu Sultan who introduced it into the State to provide his subjects with a subsidiary means of livelihood. The present Area under Mulberry is, roughly, 35,000 Acres.

(a) About 20,000 families are entirely dependent upon it.

(b) The number that is partly dependent is about 40,000.

(i) Of these, about a half depends upon silk-worm rearing.

(ii) The other half depends upon reeling.

2. The Industry has no central organisation for its management, finance and marketing. The Sericultural Department of Government partly helps in these directions and private organisations, both individual and co-operative, do the rest.

3. The maximum annual production of (1) cocoons is, approximately, four million lbs.; and of (2) raw silk is ten thousand maunds.

(N.B.—A maund means 40 seers and a seer is equal to $28\frac{1}{2}$ tolas.)

No definite statistics are available on these matters. The probable annual value of cocoons is Rs. 7,50,00,000 and of silk one crore of rupees.

4. There are in Mysore three different varieties of cocoons—Chinese and Mysore cross-breed, Japanese and Mysore cross-breed, and indigenous. The yield is less than that of Chinese and Japanese cocoons. It is true that some filatures in India have closed down for want of an adequate supply of Indian cocoons.

5. The kinds of silk-worms reared in the State are only two—country and cross-breed. The process, from rearing to completion of cocoon, is briefly as follows:—

Ten days after laying, the eggs hatch and 40 days after that, the worms complete the cocoons, three days being taken for the completion of the cocoon itself. Ten days thereafter, the moths come out. That same or the day after it, they lay eggs. Small worms are fed on mulberry leaves cut into tiny pieces. After 6 days they get fever and feeding is begun the very next day. The worms again get fever on the eleventh, seventeenth and twenty-fourth days.

6. (a) The rearing house should have windows on all four sides and should be roofed with planks and Mangalore tiles. During winter, the windows should be kept closed while in summer they should be kept open, as the temperature should be even, neither hot nor cold. The house should be furnished with stands having shelves whereon the trays could be kept in tiers. Such a structure with a capacity to hold 100 trays would cost about Rs. 400. Modern appliances, such as wooden stands, rectangular trays and perforated papers should be provided.

The two most important improvements that the existing country rearing houses need are the replacement of their country-tiled roofs by plank and Mangalore tile roofs, and the floors being paved with tiles instead of being smeared with mud and cow-dung.

(b) The following form shows the results given by the country worms:—

Race or Variety.	Number of days.	Number of cocoons to a lb.	Length of filament.	Remarks.
Country worms . . .	40	About 12,000 cocoons are required to make 1 lb. of raw silk.	200 yards per cocoon.	It varies. .

9. The worms in Mysore are multivoltine and 6 to 7 hoods are ordinarily raised in a year. About 10,000 worms are, on the average, produced from an ounce of seed.

10. The worms are fed solely on mulberry leaves. While some rearers cultivate their own mulberry either on their own or leased lands, others purchase the leaves from agriculturists who grow mulberry as a commercial crop. The cost of growing mulberry on an acre of land is about Rs. 250. An acre contains about 4,000 bushes and manure commonly used is that of cattle. Each acre yields about 3 to 8 crops per annum according to facilities for irrigation, and about 14 to 16 trays of worms are ordinarily fed on each crop.

11. (ii) It costs about Rs. 200 to cultivate an acre of unirrigated land, while cultivating an acre of irrigated land costs Rs. 125.

13. Forty per cent. of the worms die on the average, before they form the cocoons, due mainly to the supply of bad seeds and paucity of good mulberry leaves, especially during the rainy season.

14. The diseases from which the silk-worms usually suffer are (a) knots due generally to supply of bad seeds. White disease consequent on feeding on very tender leaves and yellow disease resultant on a combination of bad seeds and feeding on very ripe leaves. Due care and caution in these matters would minimise, if not obviate, these preventible diseases.

15. It is quite true that climate is the most important factor in the development of Sericulture and that the temperature most suited is between 75° to 80° Fahrenheit, with 50 to 70 per cent. humidity. Mysore State is best fitted for sericulture, except the two districts of Shimoga and Chitaldrug.

16. The average yield of cocoons per ounce or seed is 24 lbs.

17. (a) The total works expenditure incurred on the production of 12 lbs. of cocoon was about Rs. 2 during the past two years and Rs. 3 during the three years preceding that period. The works cost of producing cocoons from an ounce of seed are as below :—

	Rs. A.
(1) Cost of seed	0 8
(2) Cost of labour	0 10
(3) Cost of food for worms	0 12
(4) Cost of appliances	0 12
(5) Other expenses	0 12
Total	3 6

19. Some breeders of worms keep the cocoons to reel at home, but most of them sell them as cocoons. The breeder is obliged to sell cocoons at once irrespective of the market condition lest the moths should come out of the cocoons if he keeps them long. From 120 lbs. of cocoons, the average yield is (a) 11 lbs. of silk and (b) 5 lbs. of waste, and the average value of the former is Rs. 5 per lb., and of the latter Rs. 2-8 per lb.

(N.B.—The cost of waste silk per lb. varies: It was Rs. 3-8 last year; Rs. 4 in 1930-31; Rs. 5 in 1929-30 and Rs. 5 to Rs. 6 in 1928-29.)

22. The initial equipment required for hand reeling is a country reeler which, with complete fittings, costs only Rs. 5. It gives for 2 persons working for 12 hours an outturn of about 175 tolas of raw silk and lasts for two years with inexpensive and slight repairs.

23. (a) The total works expenditure on reeling on charka (country) for 24 lbs. of cocoons (yielding about 70 tolas of raw silk) was, per day of 6 hours' work, as follows :—

Year.	Cost. Rs. A.	Year.	Cost. Rs. A.
1928-29	1 8	1931-32	1 4
1929-30	1 8		
1930-31	1 4	1932-33	1 4

(b) The total works cost of reeling one pound of raw silk was as below :—

Year.	Cost. As.	Year.	Cost. As.
1928-29	14	1931-32	12
1929-30	14		
1930-31	14	1932-33	12

30. (1) The rates of wages paid for 6 hours' work on country charka, were As. 7 to the reeler, As. 4 to the reeler-turner, and As. 2 to the waterman.

51. The serious decline of the Sericultural Industry is due in the main to the old methods adopted in the Industry, the periodical losses of worms by diseases and the shrinkage in the area of mulberry cultivation for want of irrigational and other facilities.

56. The three conditions laid down by the Fiscal Commission entitling industries to protection, are certainly satisfied in the case of the Sericultural Industry.

(A) The Industry surely possesses natural advantages.

(B) It will doubtless develop with the help of protection.

(C) It will, if helped now, eventually be able to face the world competition without protection.

57. (a) The percentage of protection necessary is about 30 *ad valorem*.

(b) The levy may be as a Tax or Duty on yarn and piecegoods.

(c) Such a levy will be necessary for at least four years at the outset.

The reasons for the impost are chiefly as follows:—

If the Industry is given protection in its present infant stage, it will get a fillip and will thus be enabled to overcome foreign competition. As a consequence, the demand will increase, leading to an all-round improvement not only in mulberry cultivation, production of cocoons and output of silk, but also in reeling, twisting and even weaving.

Shri Krishna Silk Weaving Institute, Shahjahanpur.

(1) *Letter dated the 20th December, 1932.*

Having read in the "Leader" dated the 8th December, 1932, in an article heading Protection for Silk Industry that the Tariff Board has been directed by the Government of India to enquire into the question of granting protection to the indigenous sericultural industry. Persons or firms who desire to claim protection for the industry in India have been called upon to address their representation to the Secretary, Tariff Board, I being interested in the silk industry wish to lay my following views for consideration by the Board.

Having regard to the nature and extent of competition of raw silk from foreign countries and the existing high revenue duties on the imported raw silk and the continual dumping of the cheap Japanese silk goods the indigenous sericultural industry is opened to grave menace and its claim to protection has been established under the conditions laid down by the fiscal commission. Considering the unusual fall in the prices of the raw silks the high revenue duty on the import of the raw silk cannot be regarded so harmful to the sericultural industry as the dumping of the cheap Japanese silks. It will be in the best interest of the industry if the present revenue duty on the import of raw silk may be maintained and a protective duty on the import of manufactured Japanese silk goods be imposed. As desired by the Board I enclose herewith six spare copies of my representation.

(2) *Letter dated the 30th January, 1933, from Shri Krishna Silk Weaving Institute, Shahjahanpur.*

I thankfully acknowledge the receipt of your letter dated the 3rd January, 1933, with a copy of the questionnaire in connection with the enquiry into the sericultural industry. As noted in the beginning I have attempted only those questions with which I was directly acquainted. Being engaged in the manufacture of silk only and having no arrangements for sericulture in Shahjahanpur I have avoided to answer questions relating

to the process of rearing and all information connected therewith. It was some twenty years back when a private enterpriser had started sericulture in Shahjahanpur which had to be closed later on owing to the lack of expert's advice and the insuitability of the climate. I have a dim recollection of the special features of the sericultural industry since that time. This fact coupled with my vast studies in books on the subject in connection with my manufacturing line has enabled me to answer some of the questions which requires great practical working. I hope the little information given will prove of some value to you.

Enclosure.

ANSWERS.

1. In the early days of the East India Company the Silk Trade prospered greatly and various sub-tropical races of the silk-worm were introduced. In the seventeenth and eighteenth centuries some tropical worms procured from China and Japan were introduced in Europe and sericulture became part of the agriculture of France and Italy and a competing silk with Indian silk was produced which created new demand and found market in India and the Demand for Indian silk thus began to fall. Numerous experiments have since then been made by French experts to improve sericulture in India. An effect has also been given to the scheme devised by the Agricultural Department of Bengal through which enlarged and improved nurseries have been established in several silk producing districts. The work of the Salvation Army for the encouragement of the Industry is also noteworthy. This industry is carried on in Eastern Bengal, Assam and on the Nilgiri Hills. It is also carried on approved European Principles with Italian reeling machinery in Kashmir. In 1897 in Mysore Mr. Tata after selecting a plantation and site for rearing worms sent to Japan for a superintendent and trained operatives. 5 per cent. of the total population of Bengal is entirely and 10 per cent. is partly dependant on silk-worm rearing and reeling and so is the case in Mysore and Kashmir though in Mysore and Kashmir the percentage is higher.

2. In Kashmir and Mysore the Industry is organised with reference to Finance by the state and in Eastern Bengal and Assam by private enterprisers. As regards management the Industry is entrusted to a Department of sericulture in charge of the superintendent subject to the general control of the Director of Industries and commerce in Mysore and Kashmir. In Bengal there are organisations like the Bengal silk committee which undertake the care and development of the Industry and financing is done by private enterprisers. There is no regular system of marketing in India.

5. In India there are three well-known purely indigenous silk-worms the Tassar, the Muga and the Eri. Bombyxuori obtained from China has also been reared for centuries.

7. In no other country where sericulture is carried on there exists a necessity so pressingly as in India to treat the subject of silk industries under two sections Bombycidæ—the mulberry feeding silk-worm and saturnidæ the non-mulberry feeding worms. For example the Tassar worm feeds on jungle trees, the Muga feeds on the laurel and the Eri on the Castor oil plant.

8. The worms are reared from both local and imported seed. There is still no separate organisation for selecting the cocoons for the production of seed. Attempts have however been made to establish throughout the silk Districts sufficient number of Central Nurseries with rearing houses to enable the whole of the seed cocoons to be supplied under Government supervision.

10. The leaves on which the worms are fed are Morasalba (the mulberry of the European silk producing countries) and M. Indica the common mulberry of Bengal, Assam and also of the Nilgiri Hills. Those who are in a better financial position cultivate the mulberry on their own land and those who are financially weak carry on mulberry growing on leased land but it is rarely the case that breeder buys the leaves.

13. Nearly 40 per cent. of the worms die before forming cocoons on account of the prevalence of diseases and parasites among the worms.

14. The diseases from which the silk-worms suffer are peberine and the like. The causes are simply the lack of precautions in using the pure seed and lack of expert guidance. Precautions have not yet been taken vigorously to protect the worms from the diseases though the producers of seed and the rearers of worms have been brought home the ruinous effect of such diseases.

15. The climate plays an important part in the development of sericulture. Subsequent experience has established the belief that the plains of India especially of Bengal are not suitable for the production of silk which could compete with the European silk. On the lower hills of northern India such as Kashnir the worms have been successfully reared. It is only the climatic reason that Tassar worm is distributed on the lower hills of the Central Table land while Muga worm is reared in Assam and Eastern Bengal. The temperature and the quality of the water used in reeling pans also counts much in development of the industry. The conditions of the area with which I am concerned is not at all suitable for the rearing of the worms.

37. The various industrial uses of the raw silk are textile manufactures and the Hosiery production.

38. The total Indian demand of raw silk is nearly 90 lacs worth and the total Indian production of raw silk is nearly 20 lacs worth.

43. The wholesale prices published by the Chamber of Commerce are undoubtedly lower by 30 per cent. than the prices actually realised by the reelers in retail sale. The wholesale prices published by the Chamber of Commerce makes allowance for the discount paid to the wholesale purchaser and the brokerage of the agent. In retail sale by the reeler himself these expenses are saved. The reeler will obtain Rs. 130 for the commodity faced at Rs. 100 value by the Chamber of Commerce.

45. Yellow Shanghai quality of the imported silk competes no doubt with the Assamese silk though the twisting of the former is superior to the latter. The kinds of imported silk generally required by the handlooms weavers are, 210/2, 140/2, 60/2 and 36/2 of foreign counts and all counts of Tussa silk.

48. The fluctuations in the exchange value of the currency of the exporting countries accounts largely for the competition of the imported silk with the Indian silk. These fluctuations of exchange sometimes bring about a difference of 12½ per cent. in the prices of the commodities. If the barter scale is higher in the exporting countries small amounts sent in the terms of Indian currency will fetch higher value and the purchaser will thus be gaining the advantage of exchange, even if the prices of the commodities in both countries stand on equal level. The difference gained in exchange will effect in lowering the price of the commodities for the purpose of sale and will thus establish a fair competition. For example by remitting Rs. 100 in India the purchaser will be remitting Rs. 112-8 in terms of foreign currency. I think the competition from foreign countries is likely to increase in the near future owing to exchange factor.

49. A quantity aggregating 2 million lbs. of silk waste is imported into India and is consumed in the manufacture of Andies and course suiting cloth.

50. In my opinion no attempt in right earnest has yet been made in India to install a spinning plant. The chief causes are the absence of skilled labour in India and the lack of enterprising spirit among the industrialists. The capital outlay for such a plant is estimated at 10 lacs of Rupees nearly.

51. The serious decline of the sericultural industry in India can be attributed to the caprice of fashion which has from time to time modified the Indian silk trade. This fact together with the defective system of rearing and hand reeling weaving accounts largely for the present depression in the mulberry silk trade of India.

52. The operations of the world factors have no doubts effected the industry but there are some factors special to India such as the prevalence of diseases and parasitis among the worms which does not improve the quality of the cocoons and lack of organisation with reference to marketing. These two causes have seriously a counted for the decline of the industry.

53. My consideration is that the causes of the present decline in the industry are of temporary character.

54. The reasons for the decline of the exporting trade in raw silk waste and cocoons are, the decline in the demand for the silk yarn owing to the weakness of the purchasing power of the people of India owing to the operations of the world factors. The dumping of the cheap Japanese goods at prices below the cost of production has also marred the prospects of an importing tendency for yarns for the Indian silk manufacturers cannot at present produce goods which will be competing Japanese goods. As soon as the protection is seen insight the industry is sure to revive from its decadent condition.

55. The present method of levying revenue duty on raw silk is a great handicap to the industry. The only remedy lies in reducing the revenue duty by half.

56. The three conditions laid down in paragraph 97 of the Fiscal Commission Report are satisfied in the case of this industry.

(a) The industry possesses natural advantages of abundant supply of raw material and labour. There is neither the cheap power nor a large home market.

(b) I do claim that without the help of protection the industry will not develop at all.

(c) I further claim that without protection the industry will not be able to face world competition.

57. (a) I am of opinion that if revenue duty on raw silk is reduced by half and the import duty on foreign silk yarn is reduced by 10 per cent. and a further additional duty of 15 per cent. is placed on the manufactured silk goods of Japan which are heavily dumping in India at the present moment the prospects of the revival of the industry will soon be seen insight.

(b) The protection should be given in the form of an official bill carried through the legislature.

(c) I think the protection is urgently needed for five years hence by which time a satisfactory solution of the political problems of India which has dislocated the trade will be found out and the proposed reforms will begin to function. As a natural consequence the people will regain their purchasing power and the prices will become more stable.

58. The probable effect of my proposals will be a larger production of silk textile goods with cheap and competitive rates and a larger importation of foreign machinery. The handloom industry will receive a great push and there will be an overwhelming increase in the number of handlooms and a larger production of handloom manufacture of silk goods. The hosiery industry will likewise be effected.

59. The proportion of the cost of twisted silk to raw silk is as 4:1 and that of silk piecegoods of raw silk as 7:1.

60. If the sericulture industry will be protected it will be possible to reduce the cost of producing raw silk by adopting approved European principles with Italian reeling machinery and thus 20 per cent. reduction will be effected in the process of rearing.

Messrs. Narayandas Behani, Lachmandas Badridas, Joshi Parsuram and others, Silk Merchants, Malda.

(1) Letter dated nil to the Collector of Malda, Bengal.

We the undersigned beg most respectfully to state and submit that we render a substantial amount of financial returns as the silk yarn dealers of the district. Ten years hence every one of us had used to purchase silk yarns worth about eight to ten lacs of rupees every year for despatch throughout India and mainly to Benares, Azamgarh in United Provinces, Nagpur, Umrer in Central Provinces, Berhampur, Kumbakonam, Conjeeveram, Trichinopoly, Ayyampet and Tanjore in Madras Presidency: Bankura, Birbhoom and Cox's Bazar in Bengal. But it is extremely unfortunate to see that within so short period as only about ten years the whole prospect, with the consequent loss of thousands bringing in its train the pathetic want and unemployment on the part of the most ordinary class of people inhabiting the whole tract to the south west of the district, has come down to the lowest level and the local business now is marked at 75 per cent. below the line it was, just a decade before.

The records of the Sericulture department maintained by the Government since 1908 shows a persistent and pathetic curtailment and giving up of the cultivation of the richest harvest, the mulberry plants and the household rearing up of the silk-worms. Formerly area which used to come under cultivation of the said plant was 35,000 acres, but at present it has gone down to near about 13,000 acres or so. The reaction has been hopelessly ruinous to the cottage and home industry which in these present days is being highly extolled, introduced and encouraged throughout the world. And it is more so for India as it is presently constituted and circumstanced.

Thus the insolvency, impotency and ruins of lacs of people throughout the North-West of Malda is palpably due to and is the result of shortage of area under the said cultivation in geometrical progression under the most unfortunately free and compelling intrusion and overflow of cheap silk and silk yarn of foreign countries like Japan, China, Italy and other places.

The home made and local silk yarn have been compelled to die a wretched and unprotected and uncared for death. This mechanically and technologically backward country, a quite minor child in the market of the scientifically advanced world, needs every moment the motherly care and assistance by way of backing it up by State help and protection tariff and to revive this special and substantial membrane of this district and provincial industry on which the main part of the life blood rejuvenating strength of this tract of land depends, it would be needless to point out to our benign Government the natural and long overdue claim of imposition of protective tariff taxes on foreign indent for at least next ten years to come if not more for the present.

That may possibly save the province from the destined ruin and total annihilation of the poor souls that inhabit its bounds.

It is needless to submit in the natural claim of State aid and free distribution of preliminary capital and expenses and raising of wall above all being maintained by our protective fiduciary Government. Our exertion would produce sure and certain results within near future and thus being able to finance the peasantry and the poor householders by offering higher rates, we shall be able to enjoy the double gratification both satisfying the most absolute and ordinary daily needs of the people and increasing and improving the quantity and quality of our home silk and silk yarn and thus take a permanent stand against the threatening and devouring competition of the foreign world.

Railway Board can as well best help in this cause by reconsidering the freight rates in the light of the above circumstances. Silk yarns are always booked as railway parcel for it is always urgently necessary that the same may reach the destination without delay which generally consequent in case it booked by goods train. Moreover the same 6th class rate is charged on silk cocoons and 4th class on silk wastes which are far inferior in value and fetches

no high price of commodity value. Much can easily be done by the state in this respect and direction.

The above being a cottage and a thoroughly home industry in Bengal and on consideration of the fact that it can easily and most wholesomely solve the question of unemployment a world question in these days, in the most approved hygienic and spiritual lines, we have studiously and most patiently persisted in this business and this industry ever since the closing of the Steam Factories in Bengal and we have had to stake a huge amount of capital and stocks. Investments would still total the high figures between 30 to 35 lakhs of rupees for which we have got no guarantee or security but the resulting poverty, insolvency and unemployment of the vast numbers of cultivating, rearing and spinning population of whole tract of land.

We therefore most respectfully and humbly submit that if this most important and highly priced industry is not promptly protected and preserved, the most pathetic unemployment will assume ominous proposition due to our total stoppage of further finance consequent on the want of prospect and the most hardening circumstances of our sweat earned money being irrecoverable and lost. The heavy outlay already gone by the State through the Sericulture Department would go waste and increase the burden on the public finance.

We therefore under these distressing circumstances unite and most respectfully pray that your honour would be most graciously pleased to consider and deliberate all these and approach the Government and submit a proposal for some sort of protection being allowed and some substantial financial advances being made to the sericultural department for the preservation and furtherance of the said industry.

Endorsement No. 5223, dated the 2nd January, 1933, from the District Magistrate, Malda.

Forwarded to the Secretary, Tariff Board, for favour of placing this document before the Tariff Board. Babu Naraindas Behani of Messrs. Lakshmandas Badridas and Babu Joshi Parsuram of Messrs. Raghunathdas Ramnath, Silk Merchants, may be summoned before the Tariff Board to represent the case of the silk merchants.

(2) Letter dated the 31st January, 1933, from Mr. Joshi Prasram and Mr. Naraindas Behani, Malda.

We are in receipt of your questionnaire and we are jointly answering the questions as far as practicable. As the time allowed is short, we reserve our right to communicate further regarding your questions.

Enclosure.

ANSWER OF THE QUESTIONS PUT BY TARIFF BOARD.

N.B.—Questions relating to the Filatures are not answered as there is no filatures in Malda district.

1. Silk industry of Bengal is carried on mostly as cottage industry by the cultivators of Malda, Murshidabad, Beerbhumi, Midnapur, Bankura and Howrah. But now a days Malda is the principal centre of the business. The history of the industry is given in the leaflet No. 6 attached herewith* under headings Classification, Distribution, Life history, Rearing, Spinning, Silk reeling and Silk trade.

The figures of entirely dependent people on silk-worms rearing and reeling for 1927-28 is shown below:—

Silk-worm rearers, 53,511.

Reelers, 4,080.

* Not printed.

Since 10 years owing to downfall in silk trade many people gave up this business.

2. As it is entirely a cottage industry, so every individual, like cultivators, rearers and reelers are financed by local Mahajans and Co-operative Societies. They sell their products when it is ready to pay off their dues to Mahajans and ground rents to Zamindars. People do not like to keep their products for better marketing owing to the cheap dumping of foreign silk yarn gradually.

3. Figures are not available. Approximate outturn of raw silk would be—

Yield of reeled silk per maund of green Nistari cocoons, $2\frac{3}{4}$ seers of reeled silk.

Yield of silk-waste from, $2\frac{1}{4}$ seers of silk-waste.

4. The comparative yield of Chinese and Japanese cocoons is not known. It is not true that the filatures in India mainly in Bengal closed on account of short-age of supply of Indian cocoons, but closed due to some other reasons stated below.

The European firms ceased to trade when the price of raw silk sank so low that the price they could afford to pay for cocoons did not attract a large volume of cocoons to keep the filatures well employed with a fixed establishment, with large factory charges, filatures could be kept going only with a large volume of trade, and once this ceased, it was not profitable to continue.

5. Kinds of silk-worms reared :—(1) Nistari, (2) Chotopolu, (3) Baropolu.

For detail process of rearing and the various stages from lying of eggs to the completion of the cocoons, please refer leaflet No. 6 enclosed.*

6. (a) Rearing houses are generally the houses in which the cultivators live themselves. They are thatched houses either of mud wall or bamboo splits with mud plasteron. It costs from Rs. 20 to Rs. 100. Thatching is to be renewed every alternate year. The houses can be improved by allowing sufficient ventilation and windows by fixing of wire nets in the doors and windows to protect silk-worms from flies. All can be made if rearers get sufficient profit in their own hands by this industry.

Race of Variety.	Number of days.	Number of Cocoons per pound.	Length of Filament.	Denier.
Nistari . . .	46 days in hot weather.	Average of 56,000	..	..
Chotopolu . . .	65 to 70	..	..	..

7. Difference in method of rearing of other countries compared with Bengal is not known.

8. No imported seeds are used here. They are always reared from local seeds. The production of seeds is organised separately from the production of cocoons. The seeds are generally produced in Government nurseries, by selected rearers under Government control and supervision as also by the villagers skilled in producing seeds in suitable seed-area.

9. Our worms of Nistari and Chotopolu are multivoltine of which Nistari produces four crops and Chotopolu one crop in a year.

10. Silk-worms are fed on mulberry leaves. The rearers cultivate their mulberry in their own lands. There are also leave producers who sell their leaves to the breeders. Here the plants are usually grown from the cuttings placed 2 to 3 in a bunch of long rows of 18 inches apart. Manuring is by top dressing with tank siet, cowdung, water weeds and decomposed silk-worm litter. Thus

they are raised to a height of 5 to 10 feet or more above the general level of the country.

The cost of preparing an acre of land by the manure stated above becomes Rs. 20. The average life of the bush is 20 years.

11. The correct figures are not available. No irrigation is done in mulberry lands of Bengal. The crops are so regulated that plantation get in shower of rain in almost each crop.

12. Here the mulberry is cultivated in large quantity and we do not see that there is want of food for silk-worms, and the quality of the mulberry is not inferior, as the rearing of silk-worms is also done by villagers, we are of opinion that no extra cost is by them. Family members do everything about the nursing of the silk-worms.

13. 15 to 20 per cent. and some times more worm die before the spinning cocoons from various diseases.

14. As regards the diseases of silk-worms, please refer to the leaflet No. 6 and main causes are insufficient supply of pure disease free seed, excess humidity in atmosphere, ignorance of the knowledge of hygienic principle in the rearing of silk-worms. The precautions which are taken are stated in the leaflet under the heading "*Improved Method*". If more State help is given the more improvement may be done and more precaution may be taken towards the protection of silk-worms from the diseases. Precaution is generally taken to prevent disease is rearing of disease free-seeds, disinfecting of houses before the commencement of the crop and sulfer fumigation.

15. The climatic condition of silk rearing tracts of Bengal are suitable for the development of sericulture.

16. Here seeds are weighed not in ounce, but in kahans. One kahan seed produces 80 to 100 kahans of cocoons.

19. Many of the breeders of worms keep their own cocoons to reel at their respective houses and some of the breeders sell their cocoons to the reelers. For financial difficulties it is not possible for the breeders to keep the cocoons till prices suit them. Moreover the breeders think it desirable to sell the cocoons as soon as they are made ready because they see that the market of raw silk is gradually decreasing, and who will sell cocoons latter will be looser.

20. About $\frac{7}{8}$ th of the total production of raw silk is reeled by hand and $\frac{1}{8}$ th by the steam filatures in whole Bengal. There are no filatures in Malda, so the reeling is done by charka ghai and the description is as follows :

The cocoons are reeled at a very simple system. They are placed in an earthen pan full of water over a fire, the threads pass through holes in an iron plate fixed beyond the pot then cross a few times, pass through wire loops to guide pegs fixed in an oscillating bar so to a large wood reel turned by a small boy. Reels are of different sizes to suit demand of special sizes. In some cases there are porcelain buttons in the iron plate. There may be two sets of thread being reeled at a time that is four threads in all.

21. No correct information or figures available. On an average 8 kahans of cocoons (green) are required to produce one pound of reeled silk by hand reeling.

22. Initial cost of equipment commonly used for the hand reeling:—

	Rs. A.
One shade with brick platform and chimney	6 0
One reeling machine complete	5 0
One earthen pot	0 8
One jug for keeping water	0 4
	<hr/>
	11 12

One ghai (charka) can reel 10 seers of green cocoons or 3 seers of dry cocoons working 8 hours a day.

10 seers of green cocoons give an average yield of superior yarn 8 to 10 chattaks and inferior 12 chattaks. The annual recurring cost for up-keep of the equipment would not be more than Rs. 3 per ghai. The reeling machine lasts for over 6 years.

23. The reeling cost of last five years are given below, and shown for the reeling cost of 8 seers of green cocoons :—

1927-28 As. 12.

1928-29 As. 11.

1929-30 As. 10-6.

1930-31 As. 10-6.

1931-32 As. 9-6.

(b) The cost of reeling one pound of ordinary raw silk by charka ghai.

	Rs. A. P.
(1) Cost of cocoons 8 seers (green)	4 0 0
(2) Cost of labour	0 10 0
(3) Cost of fuel	0 4 0
(4) Cost of water	0 1 0
(5) Cost of supervision	0 2 0
(6) Cost of repair	0 0 6
(7) Cost of selling expenses and shortage	0 4 0
(8) Other expenses	0 1 0
	<hr/> 5 6 6 <hr/>

28. The total number of men employed in 1927-28 in every branch of sericulture industry is given below :—

Silk-worm rearers, 53,511.

Cocoons reelers, 4,080.

Matka spinners, 12,108.

Silk weavers, 595.

Matka weavers, 237.

But in previous years more men were employed in this industry. In present year the number of men employed are about 25 per cent. less than what was in 1927-28.

30. (1) The rates of wages paid to reelers at present working with charka are as follows :—

Reeler Rs. 12 per month.

Winder boy Rs. 6 per month.

No domestic basin of Mysore or filature is used in Malda district.

(2) Industry is not hampered by the inefficiency of Indian labour, as it is their hereditary profession, but no improved scientific machinery is used here.

(3) Present facilities for technical education are as below :—

(a) For reelers Nil.

(b) For rearers Sericulture school at Malda and Murshidabad.

(c) For any other skilled labour Nil.

37. Raw silk in India is used for the preparation of silk woven fabric, embroidery work, cotton and silk mixed fabric work and border of cotton cloth, sarees and chaddars, knitting threads and zari work.

38. We cannot say the total Indian production but we are of opinion that raw silk amounting to rupees 5 to 7 crores are sold in India.

39. Correct information regarding the total quantity of raw silk and waste produced in Malda is not available, but as far as we have collected information the figures are given below :—

	Raw silk produced in Malda in maunds.	Silk-waste produced in Malda in Maunds.
1927-28	4,740	3,500
1928-29	4,280	3,200
1929-30	3,500	3,100
1930-31	3,500	2,600
1931-32	3,210	2,250

We are unable to answer exactly the quantity of raw silk used locally and sold in other parts of India. Raw silk is not exported to other countries now-a-days, but the entire output of silk waste is exported.

Marketing method.—Reelers come with their silk to purchasers. Purchasers always collect information regarding the rates of foreign silk yarn prevailing in the area where they dispose off their silk, and inform the rates to the reelers at which they can purchase their silk. The rate of silk yarn here increases and decreases according to the demand in competition with imported silk yarn.

40. The railway freight from Malda, E. B. Ry., to the up-country station where our Malda silk is despatched is given below. Silk yarn is despatched by passenger train because it arrives at destination earlier than the goods train.

Up-country Station.	Via.	Distance.	Freight per Md.
		Miles.	Rs. A.
Conjeeveram	Manihari, Howrah, Waltair, Madras.	1,387	11 0
Trichinopoly	Ditto	1,580	12 12
Ayyampet	Ditto	1,538	12 8
Kumbakonam	Ditto	1,550	12 12
Arni Road	Ditto	1,501	12 8
Berhampur Gunjam	Ditto	675	6 11
Benares Cantonment	Katihar	400	3 15
Kashi	Manihari	398	4 5
Jahanagunj Road	Katihar	375	3 12
Chittagong	Amnura, Goalando	400	3 15
Vishnupur	Katihar, Manihari	350	3 14
Rampurhat	Ditto	175	2 11
Kasimbazar	Lalgola	100	1 7
Nagpur	Katihar, Mng., Howrah	1,000	8 15
Nagpur	Naihati, Howrah	925	8 8
Umrer	Ditto	950	8 8
Umrer	Katihar, Mng., Howrah	1,029	9 3
Bagalkot . . . . .	....	..	12 8
Amritsar . . . . .	....	..	9 0
Jullundur City . . . . .	....	..	8 11

41. The statement regarding the prevailing average price of raw silk during the last 10 years is given below :—

	Rs. A.		Rs. A.
1923-24	32 0	1928-29	21 8
1924-25	28 0	1929-30	18 4
1925-26	23 8	1930-31	14 0
1926-27	24 0	1931-32	12 0
1927-28	23 0	1932-33	11 0

42. The present method of sorting and greeding Indian silk is by naked eye examination by dalaks expert in trade. This method can be improved by introduction of conditioning house and use of scientific instruments used in the other part of the sericultural countries.

43. The chamber of commerce has no control over the Bengal silk trade.

44. The silk dealers of Malda are solely dealing in Malda silk and not in foreign silk.

45. The following imported silks are competing with our Malda silk :—(1) Canton, (2) Extra steam filature, (3) Dupion, (4) Owing, (5) Budhha, (6) Devi, (7) Golden Horse, (8) Silver Horse, (9) Bat wheel, (10) Manzi, (11) Lava.

Among these Canton silk is competing more than other silk.

46. Seeing the cheapness of the imported silk from China and Japan we consider that their raw silk is placed in the market at prices lower than the cost of production. The cost of production of our silk with such cheap labour can not compete their rates. This may be due that they are protected by bounty, the advantage of exchange, fall in silver prices and they get higher prices of their yarn sold in America and other continental markets.

47. Bengal silk is highly praised for its lusture. The fabric produced with Bengal yarn are also sought for their feel and weight. In these respect Bengal silk has an advantage over the foreign silk. The winding qualities of foreign silk are much superior to ours. On account of the better winding quality and cheapness of the prices in comparison with ours, we have been ousted from the market where foreign silk is available. Inspite of our defect in winding qualities if the foreign silk be little higher in price than there would be no difficulty for the disposal of our silk.

49. Information regarding import of silk-waste in India is not available.

50. No attempt has been made in Bengal to install a spinning plant for the manufacture of spun silk from silk-waste on account of financial difficulties.

51. Main causes of serious decline of sericulture industry in Bengal are given below :—

- (1) Dumping of cheap foreign silk yarn in India gradually in large quantities.
- (2) Our silk has to be sold below cost price in competition with the imported silk.
- (3) No sufficient help from the Government to flourish the silk industry.
- (4) Want of supply of best seeds, and want of best cultivation for want of funds.
- (5) Annual increase in the Union Board taxes though the people connected in sericulture are looser. As for instance, Amanigunj silk market which used to be held once a week from time immemorial particularly for the purchase and sale of silk yarn was left by the buyers of the silk yarn owing to the imposition of Union rates. This Amanigunj market is in Malda district.

54. The silk yarn manufactured by the improved machineries in other countries being found more suitable for weaving in power looms may be the cause of decline of the export trade of raw silk to the continents. Our silk-waste has still demand in the continental markets, but the price offered is not remunerative.

Without the State help the prospect of export cannot revive. State should help in such a way that this industry may, compete the foreign silk in qualities. For this State should establish filatures in scientific lines and help people to produce more improved qualities and place these raw silk in British dominions to use Indian raw silk instead of raw silk of other countries.

55. No other revenue duty on raw silk seriously effects except one which is " Landlord fee ". Since the introduction of Bengal Tenancy Act, buyers of lands have to pay nearly 23 per cent. of the value of the land as " Landlord fee " with transmission cost in the registration office. Firstly, by the fall of

industry and secondly, by the landlord fee the price of land has decreased to a large extent, and buying and selling of land is totally stopped. The price of one bigha of mulberry land was Rs. 400 before 10 years, but now it is Rs. 50 to Rs. 100. It would be great help to silk industry if landlord fee is abolished regarding the mulberry land by introducing the amendment to the Bengal Tenancy Act in the Bengal legislature.

56. (a) Our silk industry possesses a natural advantage in respect of abundant supply of raw materials, sufficient supply of cheap labour and a large home market.

(b) We are strongly of opinion that the industry requires a protection and without which it is not likely to develop in short period as is desirable in the interest of the country. Moreover if the protection is not given the industry is likely to be extinct in near future.

57. (a) The amount of protection necessary is 50 per cent. more by imposing Tariff on silk yarn imported in India.

(b) We propose it should be given by bounties in case of loss through climatic adversities, for adopting improved methods for improvements of seeds and implement and scientific research in proper line.

(c) Protection will be required for at least 20 years if not more for the present to develop the industry in proper line to stand in the world market.

58. There will be no bad effect as we consider by our proposal upon the silk textile industry of India or handloom industry or any other industry connected with sericulture.

60. The cost of producing raw silk here is very cheap. If we want to reduce the cost more then the industry will be abolished altogether.

Mr. Somnath Rupjeedas, Bombay.

Letter dated the 27th January, 1933.

We have to acknowledge the receipt of your letter No. 75 of yesterday's date and in reply have to state that our principal line of business is spun silk yarn. We have occasionally imported small quantities of raw silk from Italy and are also importing thrown silk yarn from Japan according to the requirements of our constituents, sometimes making a small profit and other times suffering a loss on the bargain, according to the rise and fall in prices.

The import duty on foreign spun silk yarn and raw silk is 25 per cent. *ad valorem* and port trust charges Re. 1-11 per package including surcharge.

As we do not keep any record nor make a study of the state of the markets about imports of foreign goods, we regret very much, we are unable to supply you any further information in the matter.

Messrs. Namloong & Co. and others, Bombay.

Letter dated the 31st January, 1933.

In reply to your letter of 3rd January, 1933, asking us to answer questions regarding silk industry with which we are directly acquainted, we beg to submit our replies thereto as follows:—

51. The chief cause of the serious decline of the sericultural industry is the increased import and sale of artificial silk. The sericultural industry was steadily improving when artificial silk was not introduced in the market. We have ascertained from Chinese magazine, entitled The National Journal of Commerce, Shanghai, Volume XII, No. 10, that in 1929 artificial silk to the extent of 400,000,000 lbs. was produced as against 17,000,000 lbs. in 1911.

On making inquiry of artificial silk dealers in Bombay, we were informed that at present the artificial silk is only priced 15 annas per lb. whereas in 1927 the price was rupees 4 per lb. The artificial silk piecegoods are priced only four annas per yard and to-day's the price is only 3 annas and 9 pies. Artificial

silk piecegoods are imported in India in eight shipments a month, each shipment comprising about 3,000 cases. In the market, one finds in a thousand pieces of artificial silk piecegoods, hardly one piece of pure silk piecegoods. How can the sericultural industry prosper under such circumstances?

We have read in the magazine of Shanghai Chamber of Commerce, Volume XII, No. 4, dated the 30th April, 1932. That in 1931 the quantity of raw silk produced in China was only three-fifth compared with 1929. Countless Chinese worm-feeders gave up their plantations of mulberry trees in favour of others. More than half the number of filatures and silk piecegoods factories closed down and still continued in Shanghai and Canton.

In 1931 the quantity of raw silk imported from China was less than in any former years. Please find enclosed herewith a copy of statistics of imports of raw silk into British India from China. For further proof kindly refer to Import and Export Statistics of the Custom House.

53. You want to know whether the decline in the sericultural industry is of a temporary or permanent character. So, this reply is as follows:—

(A) Artificial silk piecegoods rot easily even when kept in stock without use. they also lose colour when not used. The people will learn this in a day and will give up this in favour of real silk piecegoods. Trade in real silk will no doubt improve, when people begin to realise the substantial advantages of real silk as against artificial silk, but it will take some time.

(B) If the prices of artificial silk and artificial silk piecegoods rise, of course, the silk trade will revive soon again.

Enclosure.

Imports of raw silk into British India.

Year	Quantity of lbs.	Value of Rupees.
1868/69 . . .	1,959,951	7,30,934.
1869/70 . . .	2,019,914	90,11,114.
1870/71 . . .	2,328,854	89,55,630.
1871/72 . . .	1,799,591	65,15,946.
1872/73 . . .	1,930,910	65,94,802.
1873/74 . . .	2,282,758	78,69,138.
1874/75 . . .	2,467,255	87,29,269.
1875/76 . . .	2,466,244	69,48,885.
1876/77 . . .	1,461,069	45,18,954.
1877/78 . . .	2,102,930	67,80,692.
1878/79 . . .	1,813,993	56,72,364.
1879/80 . . .	2,005,020	68,32,351.
1880/81 . . .	2,511,802	1,06,70,183.
1881/82 . . .	1,760,595	74,92,107.
1882/83 . . .	2,386,150	1,07,41,556.
1883/84 . . .	2,210,893	98,95,649.
1884/85 . . .	1,814,242	74,71,093.
1885/86 . . .	1,724,477	72,15,616.
1886/87 . . .	1,737,891	79,33,793.
1887/88 . . .	2,598,597	1,17,43,210.
1888/89 . . .	2,045,569	90,59,386.
1889/90 . . .	2,360,467	1,06,70,453.
1890/91 . . .	2,406,239	1,11,50,683.
1891/92 . . .	2,701,069	1,26,40,030.
1892/93 . . .	2,292,846	1,01,60,801.
1893/94 . . .	2,947,595	1,36,01,789.

Year	Quantity of lbs.	Value of Rupees.
1894/95	2,494,496	1,03,65,326.
1895/96	3,030,546	1,23,29,503.
1896/97	2,287,752	83,54,878.
1897/98	2,049,608	66,97,717.
1898/99	2,250,866	79,76,569.
1899/1900	1,694,848	57,60,883.
1900/01	1,374,347	45,51,547.
1901/02	1,183,170	38,13,043.
1902/03	1,058,794	28,90,883.
1903/04	1,034,867	35,07,818.
1904/05	1,299,467	44,62,034.
1905/06	1,645,696	71,19,049.
1906/07	1,422,467	56,80,273.
1907/08	2,050,839	98,15,137.
1908/09	2,168,458	1,01,89,000.
1909/10	2,330,185	97,69,684.
1910/11	2,122,000	85,23,000.
1911/12	2,239,000	1,05,97,000.
1912/13	3,579,000	1,72,77,000.
1913/14	2,564,000	1,25,89,000.
1914/15	2,303,000	1,13,35,000.
1915/16	2,240,000	1,07,93,000.
1916/17	1,965,000	1,09,90,000.
1917/18	1,832,000	1,16,15,000.
1918/19	1,426,000	1,02,66,000.
1919/20	2,343,000	1,77,19,000.
1920/21	1,934,000	1,63,22,000.
1921/22	1,608,000	1,32,17,000.
1922/23	1,828,000	1,57,88,000.
1923/24	1,365,000	1,19,07,000.
1924/25	1,414,000	1,19,00,000.
1925/26	1,325,000	94,34,000.
1926/27	1,783,000	1,13,71,000.
1927/28	2,356,000	1,45,32,000.
1928/29	2,131,000	1,23,57,000.
1929/30	2,175,000	1,23,13,000.
1930/31	1,940,000	88,17,000.
1931/32	1,563,000	62,27,000.

Mr. P. Subbarama Chetty, M.L.C., Bangalore City.

Copy of letter No. 1198-M. C. C., dated the 31st January, 1933, from the Mysore Chamber of Commerce.

I have the honour to forward herewith six spare copies of the replies to the questionnaire by Mr. P. Subbarama Chetty, M.L.C., Lace & Cloth Merchant and Member of this Chamber, Chickpet, Bangalore City, on the Sericultural Industry, for favour of being submitted to the President and Members of the Tariff Board.

Enclosure.

P. Subbarama Chetty, M.L.C.

Lace & Silk Cloth Merchant

and

Member, Mysore Chamber.

Chickpet,
Bangalore City.

ANSWERS TO QUESTIONNAIRE ISSUED BY THE TARIFF BOARD IN CONNECTION WITH
ITS ENQUIRY INTO THE SERICULTURAL INDUSTRY.

44. The statement given below furnishes the quantities of silk imported by me since 11th May, 1932. These silks are purchased by us of Bombay merchants and not directly imported either from China or Japan.

Period	Quantity
11th May, 1932 to 30th June, 1932 . . .	880 lbs.
1st July, 1932 to 31st December, 1932 . . .	11,347 lbs.

45. Dupion and Canton filature silks are the two kinds of silks that are generally used by the handloom weavers. The former is for manufacturing ordinary class of goods and the latter for the manufacture of high class fabrics.

47. The imported silk possesses better winding qualities than Mysore silk and there is not much difference in colour. But, the latter has a much better lustre and tenacity. When the threads of Mysore silk and imported silk are intermixed with one another and are gummied and dyed and woven into cloth, it is difficult to find out that China silk is used. The difference of price between the Indian and imported silk was nearly Re. 1 per lb. but for the last one year the difference has been nearly Rs. 4 per lb.

48. The cheap price at which the imported silk is being sold in India is to a large extent due to the phenomenal fall in the exchange of the chief exporting countries of China and Japan. The exchange ratios have fallen by 50 per cent. The exchange on Shanghai was 176 in the year 1927 and 84 in the year 1931. The exchange on Hongkong was 138 in 1929 and 67 in 1931.

51. The chief cause that has been responsible for the serious decline of the industry is the cheap prices at which imported China silk is sold in the market. The China silk which was selling at Rs. 7-12 is now selling at Rs. 4-8 per lb. which is far below the cost of production of hand reeled charka silk. The weavers, who were using only charka silk have taken to imported silk on account of its cheapness and also superior winding qualities.

55. The present method of levying duty on raw silk does not affect the silk industry. On the other hand, it enables the foreign silk to be imported largely and compete against Indian silk.

56. (a) Yes, the industry possesses all the natural advantages referred to in this clause.

(b) Yes, without protection the industry stands every chance of being extinct and when once, it is extinct, it has no chance of revival even when conditions improve.

56. (c) Yes, in case protection is given for sufficiently long period, the industry has every chance to face world competition.

57. (a) If the protection is to be effective, it must be such as to place the imported silk, grade for grade, at the price at which local silk can be produced. The latter could be fixed at Rs. 6 for hand reeled silk and Rs. 9 for Filature silk.

(b) By levying a protective duty on imported silk, so as to raise the price of imported silk in Indian markets to the same level as that of the local silk.

(c) For a period of ten years at least in the first instance.

58. This will not affect the silk weaving industry if a sufficiently high duty is also levied on imported silk fabrics, as otherwise large quantities of silk

manufactures will be imported instead of raw silk and this will certainly affect the weaving industry.

59. In the case of twisted silk it is 80 per cent. and in the case of silk piece-goods, i.e., fabrics woven (in hand dyed silk yarn) is 42 per cent.

Mr. Syed Allah Baksh, Channapatna.

(1) *Memorandum without date.*

SILK INDUSTRY.

Introduction.—India used to be a supplier of silk for a long time. It played a very important part in the European markets during the days of East India Company. For the past fifty years India's export trade in raw silk and silk fabrics has been on the decline. This does not signify that she is not capable of reviving her former position.

History of Mysore Sericulture.—Sericulture in Mysore is very old and passed through several vicissitudes in her history.

During the recent times the industry declined and in 1913 it reached a very low point. A vigorous and timely action taken by the Government of His Highness the Maharaja retarded the progressive decline of the industry and a new lease of life was given to the industry in 1915 by the organisation of the Sericultural Department. Since 1930 it is passing through a severe ordeal and at present is in a critical position.

Contribution of Sericulture towards Economic Life.—Sericulture has played an admirable part in life of the agricultural population of Mysore. It is a poor man's industry. It is mainly a subsidiary occupation to agriculture, and contributes largely to their happiness by giving an additional income which they could not get otherwise. A decade ago about two lakhs of families were supported by this industry and the area under mulberry was about fifty thousand acres. At present hardly about a lakh of families are being supported by this industry and the area under mulberry is about 37,000 acres.

Operation involved in Sericulture Industry.—It is necessary to have an idea of the various operations involved in the Sericulture Industry:

(a) *Mulberry Cultivation.*—Mulberry is cultivated as bush mulberry. An attempt is being made at present to have tree mulberry as well. Cutting planting is the oldest method of cultivation, which is generally adopted in Mysore.

(b) *Rearing.*—Indigenous Mysore silk-worm which is largely reared is a multivoltine. The cocoons of this race give a comparatively low yield as against univoltines and bivoltines. Cross-breeds between Mysore and Chinese races, Mysore and Japanese races are prepared in Government Grainages and an increasing supply is being made to ryots who appreciate these cross-breeds for their decided economic advantages. To increase the production of disease free eggs, State-aided grainages have been established by Government. The number of crops raised a year depends upon the number of crops got from the mulberry garden. On rain fed lands four to five pickings of mulberry leaves a year and as many crops of cocoons are raised. Irrigated gardens give six to seven pickings of mulberry leaves and six to seven cocoon crops are raised per annum. About thirty-five pounds of cocoons per hundred layings are produced for pure Mysore races, and about 55 to 60 pounds per hundred layings on an average for cross-breeds. The production of six to seven rearings a year in Mysore compares very favourably with two to three rearings of Japan and shows the possibility of huge production of cocoons in Mysore, under favourable conditions.

(c) *Silk Reeling.*—Reeling in Mysore is done on charkas, which are hand driven. The industry is mostly managed by small capitalists. The quantity

of charka silk produced is about 92 per cent. of the total output. The charka silk is not exported to foreign countries as it does not satisfy the requirements in Europe or America, and large quantities of filature silk are not available. The charka silk cannot be utilised for manufacturing finer silk fabrics. Recently domestic basins have been introduced in Mysore which produce high grade silk; but the costs of production makes them unremunerative. There are only two filatures in this State, one a Government owned, and another a private enterprise.

Reeling Cocoons.—Reeling cocoons were being exported in large quantities to France and Indo-China after the war. The quantity of cocoons exported to foreign countries has declined considerably since 1924. Since then there is some demand for Mysore cocoon from Bengal; but since the Depression in Silk Market, there is absolutely no demand for these. Pierced Cocoons were being exported to Marseilles and Geneva for preparing spun silk, and since 1930, there has been no demand for this Commodity also. Since the impetus given to home made articles in Bengal, there has been an increased demand for pierced cocoons, and, in fact, the major quantity of pierced cocoons produced in the State is being exported to Bengal.

Silk Waste.—Since 1877 when Lord Masham discovered the utility of silk-waste, Mysore exported it entirely to Europe.

The improvement in spinning machinery every year, and a rise in working efficiency, gave rise to a great demand for good yarn; so much so that in 1924-25, the price of Mysore silk-waste had gone up to one rupee per lb. Since 1930, there has been again absolutely no demand for Mysore silk-waste or Bengal silk-waste either in England or Continent, with the result that large stocks of silk-waste are accumulated in India, and the price has gone down to a nominal level of two annas per lb. Further, there is no spinning plant for spinning silk yarn out of silk-waste in India.

Silk-waste was being sold to corporate bodies, through their Agents in Bombay or Madras. These Agents would pay the value of goods f.o.b. Bombay or Madras. The Agents in India are merely looking after the quality, grading and shipping of the commodity. On the Continent, there are large and powerful companies who have joined and formed themselves into a Syndicate. The Syndicate controls the purchase of the raw material as well as the sale of the output. The working of this corporate body is based on certain definite policy. Individual companies control their own establishments, but matters concerning the whole industry are discussed at the Board of the Syndicate. Its particular interest lies in the consumption of raw silk-waste from various sources.

Remedy for the present passivity in Silk-waste Market.—Private enterprise coupled with financial help from Government would make the industry stable. A couple of spinning plants, if installed in India, would open new channel for Indian silk-waste.

Organisation for the management, Finance and Marketing.—When considering the plan for distribution of raw silk or silk-waste, there are two chief points which must be kept in view: The first is economy and the second is satisfaction.

Before the commodity reaches the manufacture, it passes through several hands, each of which puts an extra percentage to the price, and the result is that the commodity becomes too dear for the Manufacturer. Such a system is not economic.

The second point is satisfaction and material benefit to the manufacturer. Satisfaction increases the trust of the manufacturer in his agent and makes the business easier and simpler. Selling on commission involves the responsibility and is best suited to the marketing of Indian silk. In Mysore, organization is not up to date.

The rearer who needs small sums of money generally depends upon the reeler for his finance, and the latter who needs comparatively large sum depends upon the Money-lender of the place or the Silk Commission Agent. The commission agent not only gets his commission but charges interest to

the reeler on the money advanced. To remedy this defect it is desirable that a very large number of Co-operative Societies is established in all sericultural areas.

Economic and Commercial Struggle.—The history of Silk Industry of India displays an economic and commercial struggle throughout: On the one hand, we have the economic factor of competition which plays an important part in the development of trade. This competition survived throughout. In the absence of development in other countries, the competition was only a nominal, and now it is real and effective.

The problem of competition is to be solved by low cost of production and by the organisation of trade and commerce on most modern lines. Since last fifty years, great improvement has been made in the processes of production in Japan and China. Production of silk is considered to be a national industry, and measures are taken to improve the quality of raw silk.

Private and public efforts led to an enormous increase in the quantity of production. This increase helped Japan to develop a system of international commerce by exchanging raw silk with commodities of other nations.

Mysore Silk Industry remains in a state of partial decay and demand for it practically disappeared from European markets.

While no doubt Mysore silk is superior in its natural quality such as elasticity and tenacity, it is not so well reeled as the foreign silks which lend themselves better to throwster's operations.

From the producer's stand-point, it is necessary to increase the output of high grade raw silk and limit the production of inferior grades to a minimum, so as to compete with other supplies in the market. Profits will increase when better prices are obtained and this will give a healthy impetus to the Sericultural Industry of India. This means that modern power driven filatures will have to come into prominence.

Given time and proper organisation, production of raw silk can be increased in India to at least five times its present output, and she can supply to foreign markets also.

World depression.—With the depreciation in the value of Yen, China dollars, and Exchange, and incredibly cheap labour in China, the great assistance rendered by their Government the foreign competition is a menace to Mysore Sericultural Industry, as the foreign silks are sold in this country at prices which are below the costs of production and defy all competition in our part.

Remedies.—There are only two ways to meet this unfair competition:—

- (i) The first is the reduction in the costs of production which will enable the producer to market his goods at a competitive price. With all the economics that the Indian Producer has effected during the last few years, it has not been possible to effect the object. Costs of producing mulberry cannot be further reduced unless tree mulberry is made universal which takes time. The mulberry grower is already finding his occupation unremunerative, and is anxious to take to other remunerative cultivation which is also not available. The reeler finds that he does not get any remuneration for his work, but, on the other hand, has commenced to suffer loss. The reeler also finds his occupation unremunerative.
- (ii) The second alternative is to effectively protect the Industry by enhancing the duty on foreign imports of raw silk and silk manufactures. It is absolutely necessary that no time should be lost in giving protection to this industry. In this connection it is not out of place to say that silk spinning and weaving on power looms in India are in their infancy and need time for expansion.

Foreign Dumping.—It is a matter of common knowledge that practically leading industrial countries have enacted "anti-dumping" legislation,

directed against the dumping of foreign goods, when such dumping is facilitated by the grant of bounties in the exporting countries, or due to depreciation in the currencies of those countries.

The need for legislation or executive action on the lines, similar to those adopted in other countries, has become urgent, in view of the importation in recent times of Japanese and Chinese silks and silk fabrics at abnormally low prices in India. The competition from these countries has seriously affected the Sericultural Industry. The recent action taken by the Government of India in enhancing import duty in respect of cotton piecegoods recently is an event of memorable importance and strengthens the need for a similar and effective action in case of raw silk and silk fabrics.

When is Government intervention necessary?—Generally, the immediate intervention by Government for the assistance of an indigenous industry arises—

- (a) when imports from foreign countries are sold in this country at prices lower than the prices at which they are sold in the country of manufacture;
- (b) when imports from foreign countries have the benefit of direct and indirect bounties which may place these industries at a certain advantage compared to the industries of this country;
- (c) when the currency of the exporting country has depreciated below its normal parity with the rupee prices to the detriment of an Indian industry.

It will be difficult to ascertain the price at which a particular article imported into India is sold in the country of manufacture; nor can satisfactory evidence be adduced by manufacturers in this country that particular goods imported from other countries are being sold in those countries at prices higher than the prices at which they are sold in India.

The Indian Tariff Board of 1926-27, while investigating the conditions of the Cotton Textile Industry of India, pointed out the difficulty of proving "Dumping" in this sense of the term. There are several cases in other countries where a special dumping duty in addition to the ordinary custom duty is levied on such imports.

For instance, the Custom's Tariff Act of Canada provides for a dumping duty on all goods imported at less than a fair selling price in Canada, whatever be the price at which the goods are actually sold for local consumption in the exporting country.

Clause (b) of the Canadian Act empowers Government to levy a special or dumping duty on imported goods if the export or actual selling price to an importer in Canada is less than:—

- (a) the fair market value of the same article when sold for home consumption in the usual and ordinary course in the country when exported to Canada at the time of its exportation to Canada;
- (b) the fair market value or the value for duty, as determined under the provision of section 36 of the Sea Custom Act;
- (c) the fair market value thereof as fixed by the Governor General in Council under the provision of section 37 of the Custom Act;
- (d) the value for duty thereof, as determined by the Minister under the provision of paragraphs (a) and (e) of section 41 of the Custom Act;
- (e) the fair market value thereof as fixed by the Ministry under the provision of section 43 of the Custom Act.

In all the above cases, a dumping duty in addition to the ordinary custom duty is levied on such imports equal to the difference between the said selling price of the article for export and the said fair market value or value for duty thereof.

Exchange Dumping.—In recent years, various countries have adopted measures for counteracting the benefits which competing countries have obtained through a depreciation in the value of their currencies.

For instance, about a week after the passing of the Amended Canadian Tariff Act in September, 1930, the Canadian Department of National Revenue issued a Memorandum stating that, in regard to currencies which were at an exchange rates adverse to Canada, the value for Duty in Canadian currency was to be determined by advancing the actual home consumption value by the amount of the premium at the rate or average rate of exchange current upon the date of shipment. As regards depreciated currencies, the value for duty purposes was to be arrived at by computation at the rate of average rate of exchange current on the date of Shipment. It was further laid down that, in the case of goods imported from countries whose currencies were at an exchange rate adverse to Canada, the amount to be paid for the goods in Canada, or foreign goods, must be stated in invoice, and in respect of goods of a class or kind made or produced in Canada, a special or dumping duty was to apply where the price paid by the purchaser in equivalent Canadian currency was less than the value for duty in Canadian funds arrived at by the addition of the exchange premiums.

Case of France.—Similarly in France, a presidential decree was issued on 12th November, 1931, imposing provisional exchange compensation surtaxes ranging from 7 to 15 per cent. *ad valorem* on imports from specified countries with depreciated exchanges.

In Italy.—The Italian Government, by a decree in March, 1932, granted subsidies to the Italian Mercantile Marine to compensate the Italian Ship-owners for the damage they were suffering from the abandonment by the Great Britain of the Gold Standard.

In Germany.—In Germany the Government, under the decree of 18th January, 1932, which authorises the imposing of exchange dumping surcharges, drafted a scheme for increased duties to be applied against countries which discriminated against German export.

In South Africa.—In South Africa also, a dumping clause on the Canadian Model, exists; similar legislations prevail in Australia and other countries.

Though the Government of India have enacted no such legislation, it is a matter for gratification that they can promulgate the Act and impose an additional duty on imports which enjoy the benefit of a bounty or grant in the country of origin.

What the Indian Tariff Board says.—The Indian Tariff Board in their Report for protection to the Steel Industry, states:—

“We have considered the Legislation adopted in other countries to guard against similar dangers; but we have not found it possible to frame our proposals on the model of any of them. In such measures the executive Government is usually empowered to take action when the fall in prices in due to some particular cause, *e.g.*, the depreciation of the Exchange, the grant of bounties or the low cost of production in the country of origin. Legislation of the kind proposed is often described ‘Anti-dumping’, but we have deliberately refrained from making use of that word. Whatever the precise meaning of ‘dumping’ may be, it always carries with it a suggestion that the ‘dumpers’ are guilty of some degree of moral obliquity and may, therefore, justly be penalised. We prefer to rest our case on other grounds. Whatever the reasons for abnormally low prices may be, whether bounties on the country of origin, specially reduced freight, a depreciation in the exchange of a particular country, a rise in the value of the rupee as compared with other currencies or the sale of steel at unremunerative prices, the effect on the Indian market is precisely the same. It is this effect which was to be dealt with if the protection given is to be effective.”

In the words of the Tariff Board, my request is that the protection given to be such as to be “*effective*” and give some stimulus to the Sericultural Industry.

Value of depreciated Yen.—When 100 Yen were sold at Rs. 136, i.e., before Japan went off the Gold Standard, the cost price in Bombay of Japan raw silk worth 100 Yen was Rs. 175 including 25 per cent. Duty. To-day 100 Yen are worth Rs. 90 owing to Japan going off the Gold Standard. Hence the cost price of the same 100 Yen worth of Japan raw silk including custom duty, is Rs. 125. Thus, owing to this depreciation in the exchange value of the Yen, they are able to sell goods at Rs. 125 and effectively compete with Indian silks.

Anglo-Japanese Trade Convention.—It is stated that the situation is complicated owing to the Anglo-Japanese Trade Convention signed at Tokyo on 29th August, 1904, to which India is a party. The situation can be met by the fact that there can be no breach of agreement if the proposed duty is made applicable to all countries operating a lower exchange as is done recently in increasing the duty on Textile Industry.

Results in the increase of Revenue.—The result of imposing protection duty will be that the Custom Revenue to the Government of India increase, and the Sericultural Industry will get breathing time to revive.

Why Mysore Sericulturists demand protection.—(1) Mysore possesses certain natural advantages for the development of the Sericultural Industry. It is the largest silk-producing province of India as it supplies 50 per cent. of the total output in India and can supply a larger part of silk India needs for internal consumption. The climate of Mysore is admirably suited to Sericulture, Silk-reeling and Weaving.

(2) The second reason is that, at present, the Industry is most important to agricultural classes. It is responsible for a considerable portion of their economic prosperity. It gives suitable employment to the peasant in his spare hours.

(3) The capital required for the Industry either for Mulberry-growing or Seed-rearing, is not much. Even Churka-reeling, as it exists at present, does not demand much capital. The benefit derived by the population directly or indirectly is by no means small. (4) Moreover, Mysore's vast village-dwelling population is admirably suited for this Cottage Industry.

If unhealthy foreign competition is allowed to continue sericulture would be ruined. It is unable to fight its battle alone, and it will find itself compelled to acknowledge defeat at the hands of its foreign rivals. If a catastrophe like this is not averted by timely action, Mysore's loss will be incalculable and its commercial enterprise will receive severe set back.

Reasons of non-protectionist analysed.—There are those who claim that silk has ceased to be an articles of luxury. It finds its way into almost everything under the Sun. It has a great demand both in the world of art and in the world of science. That efficiency is ultimately going to be the only test of survival. That collapse of agricultural prices in India has reduced the margin of comfort to an extent that it will be impossible for him to purchase silk fabrics should it become very costly. To all these arguments, my reply will be that growth of indigenous industry should not be killed at the altar of efficiency and cheapness. The greater interest of India requires the unhampered progress of a poor man's industry like sericulture.

The proposed duty should be "effective".—Therefore keeping the interest of Sericultural Industry on the one hand, and consumer's interest on the other, the duty that I would urge upon is that it should be effective in protecting the industry, and it need not be prohibitive. It is urged that not only silk is protected but also silk manufacturers as well.

Duty on machinery and dye-stuff be reduced.—If Sericultural Industry in India is to be revived, it is desirable that all important steps should be taken to help it from within:

There is the duty of 10 per cent. on reeling and weaving machinery and dyes, and it is desirable that the duty on these articles ought to be removed at the earliest time possible.

Railway freight be reduced on silk and silk goods.—Railway freight is one of the chief besetting problem in the growth of indigenous industries. It is very necessary that railway freight in India for raw silk, silk-waste, cocoons and silk fabric, is reduced to a level so as not to give undue advantage to imported goods in any part of the country.

A reduction generally by 25 per cent. of the present rates would be sufficient to give a distinct stimulus to the internal trade of Indian silk, silk-waste, cocoons and silk fabrics.

Immediate measures taken, as suggested, will timely avert the impending catastrophe.

(2) Letter dated the 7th February, 1933, from Mr. Syed Allah Baksh, Channarayana.

With reference to questionnaires issued by you I beg to enclose herewith six copies of my answers to the same.

Enclosure.

REPLIES TO "QUESTIONNAIRE" ISSUED BY THE INDIAN TARIFF BOARD IN REGARD TO SERICULTURAL INDUSTRY IN INDIA.

1. *History of Mysore Sericulture.*—Sericulture in Mysore is a century and a half old and passed through several vicissitudes in her industry. But, the natural and economic conditions in Mysore were so favourable that the industry survived the set backs. In the revival the imported seed disappeared and the pure Mysore race emerged successfully. During recent times also the industry declined and in 1913 it reached a very low level. A vigorous and timely action taken by the Government checked decline of the industry. A new lease of life was given to the industry in 1915 by the organisation of the Sericultural Department. Since 1930 it is passing again through a critical condition due to heavy imports of foreign silk.

Present extent of Industry.—The industry is practised in the districts of Bangalore, Mysore, Kolar, and Tumkur where natural and economic conditions are very favourable for the growth of the industry. The total area under mulberry was about 54,000 acres in 1926-27, but at present it is only about 37,000 acres.

It is practised in about 2,500 villages of the State. Formerly a decade ago, about two lakhs of families found employment in various branches of industry. At present over a lakh of families are being supported by this industry. Sericulture is essentially a subsidiary occupation to the Agriculturists. Reeling is done mostly as a main industry. It is not possible to furnish accurate figures, but an approximate can be made as follows:—

There are 37,000 acres under mulberry. On an average a family has $\frac{3}{4}$ of an acre. This means that about 50,000 families depend on it. An equal number can be safely credited to as people assisting in cultural operations, etc. It is estimated that there are about 3,500 to 4,000 charkas. This means that at least 12,000 families are employed in it.

There are other operations such as re-reeling, twisting of silk and silk handloom weaving which perhaps give occupation to about 25,000 to 30,000 families. This is a conservative estimate.

2. *Management, finance and marketing.*—The group of people interested in the sericultural industry may be classified as follows:—

- (a) Mulberry grower and rearer (both of them go hand in hand),
- (b) Cocoon reelers.
- (c) Silk traders.

The operation of rearing are carried on side by side with the cultivation of mulberry as the rearer generally grows his own mulberry. It is very rarely that he grows his mulberry for sale. The extent of mulberry garden owned by a family varies from $\frac{1}{2}$ acre to 10 acres. In Mysore there are mulberry gardens cultivated in Kushki lands, and also in irrigated lands. The principal capital investment requires by a mulberry grower is for his garden and rearing operations. The prevailing practice is that the mulberry grower and silk-worm rearer gets the advances for his operations from the reeler. A rearer in normal times get money required for his operations from the reeler. When he lost his crop the reeler who had lent him money is to wait for the next crop. He may also borrow money from a local Sowcar and also from a Co-operative Society. As regards management the family itself manages.

(b) *Cocoon reeler.*—The Proprietor of reeling establishment secures the services of skilled labour. In normal times, steady supply of cocoons could be maintained by advancing money to the rearers sufficiently. The capital for his work, he gets from his own funds and funds borrowed from silk merchants in normal times with or without security of his raw silk by payment of reasonable interest. A reeling establishment consists of 1 to 20 charkas depending upon the local conditions and financial ability of the proprietor.

The reeler sells his silk and silk-waste to the Koti and waste merchant respectively. He pays a commission of one and half annas per seer of silk sold by the Koti.

(c) *Silk traders.*—Formerly the merchant who used to have a capital of Rs. 10,000 to Rs. 15,000 was supplying raw silk to his clients in South India some parts of Bombay, and Hyderabad (Deccan), and was receiving payments in due course. He being merchant as well as a broker was charging a commission of one anna and a half per seer of silk. He gets an equal amount of commission from his customers in different places, and charges interest of 12 per cent. in case the amount is not paid in a specified period which is about a month.

3. One acre of irrigated mulberry garden gives an yield of about 10,000 to 12,000 lbs. of mulberry leaves annually. Kushki gardens would give an yield of 5,000 to 6,000 lbs. of leaves annually. To produce 1 lb. of cocoons 16 lbs. of leaves are required for consumption of the worms, and to manufacture 1 lb. of raw silk 14 lbs. of Mysore cocoons are necessary. If cross-breeds are reeled, 10 to 11 lbs. of cocoons are required for manufacturing one pound of silk by country charka.

4. *Silk Contents.*—Mysore indigenous cocoons give an average of one pound for every 14 lbs. of raw cocoons or 4 lbs. of conditioned cocoons. Cross-breed cocoons give an average of one lb. of silk for every 10 to 11 lbs. of cocoons.

Chinese and Japanese races are not commonly available in India. Government imports a small quantity of Chinese and Japanese races for preparing cross-breed layings as they are hatched artificially in Government Farms.

5. *Indigenous Mysore Race.*—Generally, indigenous Mysore race is reared by the people. Government Grainages issue cross-breed silk-worm eggs got out from Mysore and Japanese and Mysore and Chinese races.

Process of rearing.—Seed cocoons are got from reputed seed areas in the State. Moths are cut out from these seed cocoons on the 9th or 10th day of mounting. After the moths emerged, they are copulated for six hours to have the eggs fertilized. The male moths are then separated and thrown away. The female moths are allowed to lay eggs in bamboo trays. The eggs stick on to them as they contain a certain amount of gum. One moth lays about 250 to 300 eggs. Eggs are carefully preserved in a cool place. It takes about 10 days for the young worms to hatch out of eggs. Care is taken to see that they are not eaten by lizards, etc. When the layings turn grey in colour they are brushed every two hours so as to stimulate hatching

simultaneously. This is a recent practice taught by the Sericultural Department. The hatched worms are collected and the rearings begins. The worms go the 1st moult on the 5th day after brushing, and they go the 2nd moult on the 4th day after the 1st moult. They go to the 3rd moult on the 4th day of the 2nd moult, and for the 4th moult on the 5th day after the 3rd moult. Thus, the worms passed four moults within a course of 22 to 24 days.

When the worms are in moult they are not fed with mulberry leaves as they do not eat. During earlier stages, direct exposure of worms to draught, sunlight, etc., is avoided, and great attention is paid in feeding it with tender leaves. During moulting period temperature and humidity have direct effect on rearing.

During the period from hatching to 1st moult, the worms are fed 9 to 10 times a day with tender leaves, finely chopped, and the bed is cleaned every day. Husk is used by some ryots now as taught by the Sericultural Department. After the worms passes 1st moult and comes to the 2nd stage, it is given the same number of feedings as before, but the leaves fed are less tender than before, and the size of chopped leaves is also bigger so as to serve the increased growth of the worm.

When the worm passes 2nd stage it will have fairly developed and will have fairly good appetite and consuming large quantity of mulberry leaves. During this stage the feeding is decreased by one. More matured leaves are used and the size of chopped leaves is also bigger. During this stage 3 cleanings are given.

When the worm comes to the 4th stage, the size of the worm grows bigger, and it needs more food than in the earlier stages. The space occupied also become larger necessitating a large number of trays. The number of feedings and cleanings remain the same as before. During this stage, more labour is required whereas in the earlier stages more skill and care were the guiding factors.

During the 5th and last stage, the worm will be very active. The quantity of food consumed is large. During this stage, the cleaning of bed is made as frequently as possible, as large quantities of leaves are fed upon giving rise to greater mass of excreta. When the ripening period comes, the silk-worm becomes pale, its body shrinks, and it gets a round appearance.

The 5th stage last ten days. During all the above stages, weak and diseased worms are separated from the healthy one. During cold and humid period of the year the rearing room is kept warm by igniting charcoal in some central part of the room. During hot period of the year cold water is sprinkled on the floor to lower the high temperature. This is in the case of ryot who have adopted new improved methods.

When the worms are ripened they are generally left in a specially prepared spinning tray called "Chundrikes". The worms are allowed to spin cocoons. The cocoons are removed on 2nd day in some places, and on the 4th day after mounting, in other places.

6. (a) Generally the rearer if Mysore does not possess a separate rearing house nor does he isolate a rearing house from his own family house.

Obviously there are many improvements to be made in houses used by the rearer for his rearing. He can improve the floor of his house and have good ventilation. A ceiling could be introduced between the tiled roof and stands to minimise effects of high temperature during summer. Arrangements may be made for better ventilation.

The equipment of a rearing house consists of stands, trays, chandrikes, chopping knife, chopping board, baskets for leaves, husk when he uses, pots for keeping water under the legs of the stands. Stands last for about 5 years to 7 years. Trays last for about 2 years, chandrikes for 3 years to 4 years, knife, board and baskets last for about a year.

For rearing one ounce of silk-worm, the following are essential:—

	Rs. a.
Stand, 1	6 0
Trays, 10	3 5
Chandrikes, 15	16 4
Chopping knife, 1	0 10
Chopping Board, 1	0 8
Baskets, 4	1 0
Total	<u>27 11</u>

The above charges vary according to local conditions.

7. It is understood that there is no appreciable difference.

8. Generally the multivoltine worms are reared from indigenous seed. No seed is imported from foreign countries.

There are two traditionally reputed seed areas in the State, viz., (1) Bidadi, and (2) Kunigal.

These areas are very well known for seed cocoons from several generations. From my local knowledge I am aware that the rearers in seed areas are under technical control of the Sericultural Department. There are Government Grainages and Aided Grainages which prepare high quality seed and sell to ryots. It may be said that Mysore has got a good seed organization.

The cost of seed in Government Grainages and Aided Grainages is Re. 1 per ounce now, and the cost of seed cocoons in the seed area varies now between 12 and 14 annas per thousand. Formerly it used to be Rs. 2-8 to Rs. 3 per thousand seed cocoons which gives about 2½ to 3 ounce.

9. The worms in Mysore are multivoltine. 6 to 7 crops can be raised per year comparing favourably with 2 or 3 broods of Japan, and showing the possibility of extensive development in Mysore.

About 40 to 45 thousand worms are hatched for an ounce of eggs.

10. The worms are fed on mulberry leaves. The rearer generally has a mulberry garden of his own.

Mulberry belongs to the varieties of deep rooted plants and it yields leaves for at least 15 years. It is cultivated as bush mulberry and is propagated by means of cuttings. Mulberry is grown both on irrigated and unirrigated lands. On unirrigated lands it is fed on raid water. Irrigated gardens get their supply of water from tanks and river, and wells.

12. *Methods adopted for improving the supply of mulberry.*—For improving the supply and quality of mulberry leaves and to reduce its price attempts are being made by:—

(1) Planting tree mulberry.

(2) Use of different varieties of organic manures.

13. On an average 25 per cent. of worms do not reach the stage of spinning cocoons. Some are lost in cleaning, and some due to diseases.

14. Two very common diseases are:—(1) Flacherie, and (2) Pebrine.

(1) Flacherie is due to digestive troubles and is caused by faulty rearings, bad or unsuitable leaf, and unwholesome climatic conditions.

Precautions to be taken.—Precautions are necessary one to eliminate the above.

(2) Pebrine is both "Hereditary" and "Contaminative".

Precautions.—The precautions that is to be taken in this connection is to use disease-free seed either cellular seed from Government Grainages or industrial seed raised on a basis of cellular seed reared by a seed rearer

recognised by the Sericultural Department. Disinfection of rearing rooms also minimises the incidence of pebrine.

15. Climate is very important condition. The climatic conditions in the State are most eminently suited for the development of sericulture which has been in existence over more than a century in the State. Mysore from climatic point of view is divided into two regions:—(1) Maidan, and (2) Malnad.

In Maidan sericulture has consolidated. Mulberry grows well. The multivoltine worm is reared with an excellence and is strong and resistant to diseases. Labour is cheap and healthy. Population being mostly agricultural, sericulture helps them earn an additional income.

16. The average yield of cocoons per ounce of seed from Mysore seed is ascertained to be 48 to 52 lbs., and the yield of crops from cross-breeds is 77 to 84 lbs.

The yield of cocoons per ounce of seed is as stated above. It is also an undisputed fact that yield depends upon the four prime factors. (1) The disease-free seed, (2) the skill and care bestowed by the rearer, (3) quality of food he gives to silk-worms, and (4) rearing of worms under suitable climatic conditions.

18. Out of the total quantity of about 10 to 12 millions pounds of cocoons produced, only about 2 to 3 per cent. is utilized for seed, and the rest is reeled. The value of seed cocoons would be about 2½ lakhs, and that of reeling cocoons about 35 lakhs. The average value of reeling cocoons at present is 5 annas per lb., for indigenous mysore and As. 5-6 to As. 6 per lb. for cross-breed. The value of Mysore reeling cocoons, 8 years ago, ranged between 14 annas to Re. 1 per lb. The cost of seed cocoons at present is 12 annas to 14 annas per thousand seed cocoons which give about 3 ounce of seed.

19. The rearers of silk-worms sells his cocoons generally to a reeler. He sells immediately irrespective of condition of the market, soon after the harvest is over. Some rearers sell their harvest within the 2nd day and others within the 4th day after mounting.

The system of selling conditioning cocoons is not prevailing in Mysore.

Cost of 1 lb. of raw cocoons during the last 5 years:—

1927-28—As. 7 to As. 8.

1928-29—As. 8 to As. 8-6.

1929-30—As. 6 to As. 7.

1930-31—As. 4-6 to As. 5.

1931-32—As. 5 to As. 5-3.

Statement showing the average yield of (a) silk, (b) silk-waste, got from 100 lbs. of cocoons and average value of each:—

Year.	Yield of silk	Yield of silk-waste.	Rate of silk per lb.	Rate of silk-waste per lb.	Value of silk realised.	Value of silk-waste realised.
	Lbs.	Lbs.	Rs. A.	As.	Rs. A. P.	Rs. A.
1927-28	7-2	4	8 0	8	57 9 6	2 0
1928-29	7-1	4-5	8 4	8	58 9 0	2 4
1929-30	7-2	4	7 4	8	52 3 0	2 0
1930-31	7-2	4	5 4	4	37 13 0	1 0
1931-32	7-1	4-5	4 8	4	31 15 0	1 2

20. It is believed that nearly 94 per cent. of Mysore cocoons are used for reeling in hand charkas. About 6 per cent. of cocoons are reeled both in domestic basin and power driven filatures.

In Mysore State reeling is mostly done in charkas which are hand driven. Their number at present is about 4,000. There are 26 sets of domestic basins of 5 units which are also hand driven.

Modus Operandi of country charka.—Steamed cocoons are taken and the processes connected with reeling, i.e., cooking of cocoons, preparation of cocoons, and reeling of silk is conducted in a half cut mud vessel or brass vessel fixed on a hearth in which water is put, and the vessel is heated by means firewood. One serious disadvantage of the system is that temperature cannot be controlled, nor is it possible for the reeler to maintain uniformity in the silk reeled due to smoke and vapour screening him from looking into it. In addition to a reeler there is a turner and there is a cooly for carrying water and splitting fuel. The silk in this process is crude wanting in uniformity, winding qualities, such as elasticity, tenacity, and luster.

(2) *Domestic Basins.*—These basins designed by Mr. N. Rama Rao, who is now the Director of Industries and Commerce in Mysore, are intended for the use of persons who cannot go in for very costly filatures, but who desire to manufacture high grade silks. These basins are based on scientific principles with a view to reel high grade silk. Unlike in country charkas there are separate arrangements for the various processes which cocoons undergo before they are reeled. The one decided advantage is that the required temperature in cooking and reeling basins could be maintained.

The thread catchers are of a very simple but effective designs driven by ordinary strings. To give a round shape to the silk reeled croisure can be given and the croisure also aid in removing certain percentage of moisture before the thread goes to the reel. There is distributor arrangements also to give uniform spread of silk on the reels, with the formation of "Diamonds". The silk reeled in domestic basins is no way inferior to silk reeled of steamed filature basins.

21. *Statement showing quantity of silk and silk-waste produced from the State, the average value of each:—*

Years.	Quantity of silk exported.	Value of silk in lakhs of rupees.	Value of one lb. of silk in rupees.	Quantity of silk-waste exported.	Value of silk-waste in lakhs of rupees.	Value of one lb. of silk-waste in annas.
	Lbs.			Lbs.		
1927-28	670,760	58.01	8.64	480,845	2.25	7.5
1928-29	619,650	52.30	8.44	493,394	2.50	8.8
1929-30	552,844	42.68	7.72	462,890	2.27	8
1930-31	388,440	23.13	6.03	234,720	0.50	4
1931-32	367,440	22.20	6.04	266,560	0.67	4

In case of raw silk reeled in charka 14 lbs. of Mysore raw cocoons give an average yield of 1 lb. of silk, and 10 to 11 lbs. of cross-breed cocoons give an average yield of 1 lb. of silk of 28/30 denier. The average proportion of waste is .05 to every pound of raw silk.

22. *Equipment required for a charka:—*

	Rs. A.
Reel, 1	5 0
Copper basin, 1	6 8
Earthenware basin	0 8
Forked supporters	2 8
Eccentric wheel	0 8
Total	15 6

23. *Cost of production of charka silk, per charka, working in a day of 8 hours:—*

No.	Details.	1927-28.	1931-32.
		Rs. A.	Rs. A.
1.	Cost of 25 lbs. of cocoons	12 8	7 13
2.	Cost of labour	1 0	0 12
3.	Cost of fuel	0 10	0 8
4.	Cost of water	0 4	0 3
5.	Cost of supervision	0 4	0 4
6.	Cost of repairs and maintenance	0 1	0 1
7.	Selling expenses	0 4	0 4
8.	Other expenses	0 1	0 1
	Total	15 0	9 14
	Deduct cost of $1\frac{1}{4}$ lb. of silk-waste	0 10	0 5
	Cost of $1\frac{3}{4}$ lb. of silk	14 6	9 9

The selling price of silk in 1927-28 was Rs. 9 per lb. The quantity of silk reeled is $1\frac{1}{4}$ lb. Therefore, the amount realised by the reeler is Rs. 15-12. Deducting the actual cost at Rs. 14-6 his income was Re. 1-6 per charka.

In 1931-32 the cost of silk is Rs. 5-4 per lb., and the amount realised by the sale of $1\frac{1}{4}$ lb. of silk is Rs. 9-3. Deducting the cost at Rs. 9-9, the actual loss to him is 6 annas per charka.

(ii) *Cost of domestic basin silk is ascertained to be:—*

No.	Details.	1927-28.	1931-32.
		Rs. A. P.	Rs. A.
1.	Cost of 100 lbs. of cocoons	50 0 0	31 4
2.	Cost of labour—		
	(a) 5 reelers, Rs. 2-8	3 12 0	3 12
	(b) 3 cookers, As. 12		
	(c) 1 turner, As. 8		
3.	Cost of fuel	1 8 0	1 0
4.	Cost of water	0 12 0	0 10
5.	Cost of supervision	1 0 0	1 0
6.	Cost of repairs and maintenance	1 0 0	1 0
7.	Selling expenses (commission on silk and cocoons brokerage)	1 8 0	1 8
8.	Other expenses (oil, rent, railway freight)	1 8 0	1 0
	Total	61 0 0	41 2
	Deduct cost of 3 lbs. of silk-waste	3 0 0	1 2
	Cost of production for 5 lbs. of silk	58 0 0	40 0
	Therefore the cost of production for 1 lb. of silk is	11 9 7	8 0

The price of silk in 1927-28 was Rs. 12 per lb., and Rs. 8 in 1931-32.

30. (a) *Wages paid to charka reeler (in Channapatna).*—Charka reelers are paid wages according to the quantities of cocoons they reel in a day, the usual rate being four annas for reeling a tooka of 12 lbs. of cocoons. The minimum wages of a charka reeler are seven annas per day.

(b) *Wages paid to domestic basin reelers—*

(1) Wages for reeler, 8 annas a day.

(2) Cooker, 4 annas a day.

(3) Turner, 8 annas a day.

(ii) The sericultural industry in India is not hampered by the inefficiency of Indian labour.

The factors that go to hamper the sericultural industry of Mysore are the increasing importation of cheap raw silk from foreign countries.

(iii) The silk farms train sons of rearers, and training to reelers is given. Filature and silk-twisting schools are also given.

37. The various industrial uses of raw silk in India are the silk fabrics, gold lace, gold thread, naki sewing, embroidery silk cords.

38. *Total Indian demand for raw silk.*—The total Indian demand for raw silk is above 4 millions pounds.

Total Indian production of raw silk.—The total Indian production of raw silk is about two million pounds.

39. *Statement showing the quantity of raw silk and silk-waste produced in last five years:—*

Year.	Silk produced.		Silk-waste produced.	
	lbs.		lbs.	
1927-28	1,000,000		500,000	
1928-29	920,000		460,000	
1929-30	880,000		440,000	
1930-31	860,000		430,000	
1931-32	740,000		370,000	

It is estimated that about 33 per cent. of total output of silk is consumed in the State, and the rest is sold in other parts of India. No Mysore raw silk exported to foreign countries.

All the silk-waste produced in the State is exported.

Marketing of silk.—Kind reference is invited to reply of question No. 2.

Marketing of silk-waste.—Silk-waste is sold locally to merchants who deal in it. Generally, the local merchants purchases all the silk-waste and stocks them with him. Generally, he will have forward order for three to six months from corporate bodies through their agents in Bombay or Madras. These agents would pay the value of goods f.o.b. Bombay or Madras. The agents in India merely look after the quality grading and supplying of the commodity. On the continent there are large powerful companies who have joined and formed themselves into syndicate. The syndicate controls the purchase of the raw material as well as the sale of the output. The working of the corporate body is based on certain definite policy. Individual companies control their own establishment, but matters concerning the whole industry are discussed at the board of syndicate. Its particulars interest lies in the consumption of the raw silk-waste from various sources.

41. *Statement showing the prices that prevailed for silks in Bangalore Silk Market:—*

Year.	Charka silk per seer of 26½ tolas superior.	Charka silk per seer of 26½ tolas inferior.	Charka silk per lb. superior.	Charka silk per lb. inferior.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1927-28	6 5	5 11	9 8	8 6
1928-29	5 3	5 12	8 10	7 12
1929-30	4 11	5 7	8 2	7 5
1930-31	3 12	4 6	6 9	5 10
1931-32	3 10	3 2	5 7	4 11

Expenses per bundle if sent outside like Trichy:—

	Rs. A.
1. Railway freight	3 8
2. Packing charge, gunny bag, cloth, etc.	1 4
3. Transportation charges to station	0 4
Total	5 0

42. At present there is no scientific method of grading silk in Mysore; but, grades are fixed according to localities where they are reeled. The grades are determined by fineness, uniformity, cleanliness colour, luster, feel, strength, etc. Silk of some places like Kempanahalli, Sidlaghatta, are considered of a fine count. Silks of places like Channapatna, Maddur, and T. Narasipur are a bit coarse. Lastly, silk reeled in remote villages is considered coarser. But, silk reeled in Domestic Basins and in Filatures is controlled by scientific test, towards uniformity, elasticity, tenacity, and winding qualities of different sizes. The Domestic Basin Proprietors have their silk tested in Government Filature. It should be better if the grading of silk is made scientifically by having a conditioning house.

43. There will not be generally any marked difference between the whole-sale prices published by the Silk Association, and the prices actually realised by the reelers. There will be some differences of 2 to 4 annas per seer between the prices secured and those quoted in the Association periodical. The variation between the two is due to the fact that the price quoted in the letter refers to the average or general price of silk of that particular town or village. But, among the lots of silk of that particular town or village there will be very good lots and some inferior lots. It is but reasonable that there should be some difference between the prices of superior and inferior grades of silk of the same place. Further the price mentioned in the periodical of the Association refers to the average price of the silk for the week or fortnight referred to; but the price of silk market will be varying from day to day and from time to time, according to demand and supply.

Statement showing the prices at Bangalore for charka silk during the years 1927 to end of 1932.

No.	Name of Taluk.	1927.		1928.		1929.		1930.		1931.		1932.	
		From	To	From	To	From	To	From	To	From	To	From	To
		Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1	Sidlaghatta . . .	10 2	11 4	9 0	9 6	9 6	9 12	8 4	8 10	6 0	6 4	5 7	6 0
2	Kempanahalli . .	10 8	11 4	8 10	9 0	9 0	9 6	8 1	8 4	5 10	6 0	5 4	5 10
3	Chikkaballapur . .	10 8	10 14	8 10	9 0	8 10	9 0	7 2	7 8	5 7	5 10	5 4	5 7
4	Closepet . . .	10 8	10 14	8 1	8 10	8 10	9 0	7 8	7 14	5 6	5 7	5 4	5 10
5	Channapatna . . .	9 12	10 2	7 14	8 1	8 4	8 7	7 2	7 5	5 4	5 7	4 8	4 14
6	Kollegal . . .	9 0	9 6	7 8	7 14	7 8	8 1	6 6	7 2	4 14	5 1	4 2	4 14

45. The following statement shows the kinds of imported silk competing with the following Mysore silk :—

Name of Filature.	Kinds of mark.	Competing with what kind of local silk.
Duppion . . .	Dance	40/60 Agrahar, Malavalli, and Channapatna.
Canton steam filature	Gray hound, and such other grades.	Hindiganal, T. Narasipur. 20/22 Sidlaghatta, Manchanabele, 24/26 Kyalanur and Chikkaballapur, 28/32 Thimmasandra and Closepet, 32/36 Thimmasandra and Maduvadi.

Canton is the largest of imported silk used here by the handloom weaver.

46. In fact the manufactures of Canton filature are being sold in Bangalore market at the price far below the cost of Mysore filature or domestic basin silk, and even of charka silk. It is a fact that the cost of production of charka silk cannot be anything below 5 to 6 rupees per lb. But, Canton's are being sold at Rs. 4-12 per lb. in Bangalore, which is at least 8 annas below the price of the lowest quality of the Mysore silk, and that after paying a duty of 25 per cent. In addition to this, Bangalore merchants have to incur expenses up to 5 per cent. on handling and other charges including freight, etc. If from Rs. 4-12 these two are deducted the price at the port of Bombay should be Rs. 3-10. From the country of origin to India a lb. of silk on all charges, *viz.*, commission, freight, handling, etc., cannot be anything less than 5 to 6 annas per lb. Deducting this from Rs. 3-8 the cost in filature in South China should be Rs. 3-2 per lb. of silk. From this deduct manufacturing charges of 30 per cent., *viz.*, Rs. 2-3 should be the value of cocoons to produce one lb. of silk. It is found that Canton cocoons are inferior, and that about 15 to 16 lbs. are necessary to produce one lb. of silk. In other words the value of cocoons would be about Rs. 2-4 per lb. This is less than half of the value of one lb. of Mysore cocoons. It is impossible to think how the cocoons cost would be so low. For conditions in South China and here cannot be very different. The conclusions that either the filatures are selling below the costs or that the whole industry in China is heavily subsidized by Government to cover up losses sustained by filatures is impossible to escape. It is learnt that Chinese Government have abolished export duties on silk and that they have given enormous concession to sell her manufactures.

The exports of China silk to America have been lessening by about 40 per cent. due chiefly to Japan ousting out China from American market. China naturally in despair turned to other countries for markets for her silk. There is no doubt that she will continue to dump her silk into India till Indian industry is killed out of existence. She will then dictate her own terms.

47. Mysore silk is of splendid qualities such as elasticity, tenacity, luster, and colour. But Canton silk is better reeled than Mysore charka silk and behaves better in throwing operations. The difference in price is not due to difference in quality, but it is entirely due to reasons specified in replied to question 46.

Year.	FOREIGN.			MYSORE.	
	Canton per lb.	Duppion per lb.	Danco per lb.	Mysore Raw, 1st quality, per lb.	Mysore Raw, 2nd quality, per lb.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
1927-28 . .	9 12	6 9	..	9 8	8 6
1928-29 . .	7 0	6 9	5 14	8 10	7 12
1929-30 . .	6 8	5 8	6 2	8 2	7 5
1930-31 . .	6 2	4 14	5 4	6 9	5 10
1931-32 . .	4 14	4 6	5 10	5 7	4 11

48. Before Japan went off the gold standard the cost price in Bombay of Japan raw silk worth 100 was Rs. 175 including 25 per cent. duty. Now, 100 are worth Rs. 90. Hence the cost price of the same 100 worth of Japan raw silk including custom duty would be Rs. 125. This also applies

to Chinese dollars which is also depreciated considerably. The following statement gives the value of Hongkong Dollars, Shanghai Tails, and Japanese Yen in terms of rupees:—

Year.	Hongkong dollar.	Shanghai Tails.	Yokohama Yen.
January—			
1929	1.38	1.76	1.25
1930	1.13	1.37	1.34
1931 . . . . .	.73	.97	1.38
December—			
1932 . . . . .	.90	1.17	.84

Indian imports of foreign silks have been greatly facilitated and could be due to depreciation of Chinese money.

The competitions of the foreign countries is sure to increase in the near future. America the traditional market for China and Japan has lessened her purchases in those countries. India is a large market, and therefore, it is likely that they will do their utmost to capture it.

49. Silk-waste is not imported into India. On the other hand all silk-waste produced in India is exported to European countries.

50. About 20 years back the spinning of silk-waste was carried on a small scale in Bombay by Messrs. David Sassoon & Co. Since then no attempt has been made so far. It is rumoured that Hyderabad Durbar are contemplating the installation of a spinning plant for the manufacture of spun silk.

51. *Causes for the decline of the Sericultural Industry.*—The decline of sericultural industry in India is mostly due to the increasing import of foreign cheap raw silks. It is also to a certain extent due to the replacement of real silk by artificial silk.

52. The decline of the sericultural industry is due to several factors:—

- (1) Factors concerning the world.
- (2) Factors special to India.
- (3) Factors relating to Mysore.

(1) An acute economic depression everywhere in the world and in every walk of life is one of the causes which contributes to some extent. Mysore is not immune from the effects of the world depression. She has got her own troubles as well. Being primarily an agricultural country, the fall in prices of agricultural produce have very adversely affected the purchasing power of Indian people, nay of the people of the world at large. So long as the economic depression holds way, the purchasing power of the people is not likely to regain its former strength. The economic depression is not likely to disappear so long the question of interallied war debts and other economic questions relating to it are not permanently settled to the satisfaction of debtor countries.

Remarkable extension in sericultural area of the world.—Akin to world depression there is another factor which has affected the Indian industry. It is remarkable extension in the sericultural industry of the world. Formerly, there were few industrial countries where sericultural operations were being practised. To their number we have to add Russia and Siberia as well.

Fall in demand of silk from United States of America.—Till quite recently America was the greatest consumer of natural silk and silk fabrics. Now, its consumption of silk is reduced. Hence countries which formerly exporting their goods to America have to find an outlet for them. India is possibly one of the countries where they have planned of dumping their goods.

(2) There are some factors special to India which have indirectly contributed to the decline of sericultural industry.

Exchange adverse to exporters.—The exchange manipulation of the Government are all adverse to the exporter and favourable to importers. The fixing of rupee value at one shilling six pence in preference to one shilling four pence is an event which has done considerable damage to all Indian exporters.

Added to this, since Great Britain went off the gold standard the fortunes of the Indian rupees are linked with that of sterling. This link is also not beneficial to Indian exporters.

As against the helplessness of India in manipulating its own exchange, we have cases of Japan and China who are manipulating their own exchanges to their best advantage. In contrast to the great, speedy and systematic assistance rendered by the Governments of Japan and China to their nationals to safeguard their national industry we have the spectacle of our Government which require years, before even an enquiry is caused into the industry, which is facing catastrophe.

(3) *Private and Public efforts wanting in Mysore.*—In all silk producing countries there are private and public efforts which lead to an enormous increase in quality and quantity of production of silk. In Mysore such efforts are wanting. It may be said that the main cause of the decline of Indian industry is due to the heavy import of foreign cheap silks into India.

53. The causes for the decline of the industry even though they appear to be temporary may kill our industry if immediate steps are not taken to protect it against the unhealthy competition from foreign countries. An effective control and foreign imports would help in developing silk industry in India.

54. Mysore was not exporting silk to outside country.

Causes for the decline and stoppage of export trade in silk-waste.—(1) The decline in the export of Indian silk-waste is an obvious outcome of decline in the consumption of spun silk.

(2) The over production of silk-waste on the continent, Japan and China.

(3) The closure of some of the spinning plants on the continent of Europe due to the depression in trade.

(4) The invasion of artificial silk in the domain of silk fabrics leading most of silk producing countries which were using silks spun out of silk-waste for their under-wear use artificial silk instead of it.

(5) The defects in charka silk-waste of Mysore and Bengal.

Defects in silk-waste.—Even before the world depression was stepped in, Mysore and Bengal charka silk-waste was considered useless from a commercial point of view. The presence of foreign matter such as vegetable fibres, cotton twisted into knots, papers, clay, etc., make the ways loose its real value. The elimination of the above-mentioned defects impairs the quality of the yarn, and increases the cost of spinning. The yarn resulting is only a 2nd grade article and is used for poor goods in which imperfection does not matter. Except for the above, Indian waste has very fine fibre. The luster of spun silk is usually very good. The tensile strength of the spun silk largely depend upon the fineness of the initial fibre, i.e., the coarser the fibre the less the strength, the longer the staple the better the yarn.

(6) The French Schappe got out of Indian silk-waste was largely exported to United States of America. The consumption of the French Schappe is considerably lessened in America.

If the silk exports are to be revived the long staple quality of silk-waste be manufactured, and the present method of manufacturing silk-waste should be modified.

55. The present method of levying revenue duty on raw silk has no effective control on the influx of foreign silk in India. The present duty is in no way helpful for the protection of the sericultural industry.

"A special dumping duty act is necessary."—It is desirable that a special dumping duty act be passed enabling the Governor General of India to levy a special dumping duty on all imported silks, spun silks, or silk goods, imported at less than a fair selling price in India, in rupees, whatever be the price at which the goods are actually sold for local consumption in the exporting country.

In all such cases a dumping duty in addition to the ordinary duty should be levied on such imports equal to the difference between the fair selling price of the article for export and the fair market value in terms of rupees.

As regards depreciated currency the value for duty purposes is to be arrived at by computation at the average rate of exchange current on the date of shipment.

As regards the goods imported from countries whose currencies were at an exchange rate adverse to India, the amount to be paid for the goods in India must be stated in invoice. And in respect of goods of a class or kind made or produce in India, a special dumping duty is to apply where the price paid by the purchaser in Indian rupees is less than the value for duty in Indian rupees arrived at by the addition of the exchange premium.

Duty on machinery and dyestuff be abolished.—If Sericultural Industry in India is to be revived, it is desirable that all important steps should be taken from within.

There is the duty of 10 per cent. on reeling and weaving machinery and dyes, and it is desirable that the duty on these articles ought to be removed at the earliest time possible.

Railway freight be reduced on silk and silk goods.—Railway freight is one of the besetting problem in the growth of indigenous industries. It is necessary that railway freight in India for raw silk, silk-waste, cocoons, and silk fabrics be reduced to a level so as not to give undue advantage to imported goods in any part of the country. A reduction generally by 25 per cent. of the present rate would be sufficient to give a distinct stimulus to the internal trade of Indian silk, silk-waste, cocoons, and silk fabrics.

Imperial Council of Agricultural Research.—The Imperial Council of Agricultural Research be impressed that Research work in Sericulture should be made, and grants made towards this.

56. The Sericultural Industry possesses natural advantages such as abundant supply of raw materials, cheap power, sufficient and efficient labour, and Home market. Our climate is ideal for rearing of silk worms. India consumes over four million lbs. of raw silk, and if opportunity is given, Mysore can in fullness of time meet the entire demand.

The policy of the State is to develop sericulture. Had it not been for the limitation imposed by the finances of the State, the internal reform would have been earlier. The ryot has been responsive to new methods, though he took time to understand it in the beginning.

It is certain that without the help of protection, the industry is not likely to develop at all. The industry will eventually be able to face world competition, nay defy it, provided the protection is vouchsafed at this juncture.

57. (a) Protection is necessary to that extent as it would make foreign silk sell at the rates at which we can sell our re-reeled charka silk with some profit to the rearer and reeler.

For instance, now the foreign silk of quality similar to that produced in the State sells at Rs. 4-12 per lb. in Bangalore after paying the duties of 25 per cent. and transport and other charges. This price is much below the cost of production of our silk. The price of foreign silk should be raised by an effective protective duty.

(b) *Protective Duty*.—I propose that 75 per cent. *ad valorem* duty be imposed on all foreign raw silk, spun silk, imported into India. (2) Further it is necessary that an anti-dumping duty act be enacted imposing an anti-dumping duty as stated in reply to question No. 55.

(c) For about 15 years.

It is necessary to bring up the level of foreign silk to the price level at which re-reeled charka silk or domestic basin silk can be sold. As per analysis of figures in No. 47, it is seen that the Tariff valuation of foreign silk must be Rs. 3-9 per lb. If 75 per cent. duty in addition to the anti-dumping duty is put, then foreign silk can be sold in Bangalore at a price which will be competitive. It is desirable to point out that the anti-dumping duty is as essential as the protective duty. The protective duty may last for 15 years. The anti-dumping duty should last so long as the circumstances necessitating its levy exist. I think, that in the course of 15 years, the industry would be in a position, to develop its activities in all its branches and face the world competition by reducing the cost of production of raw silk by all possible ways at its disposal.

No bounty is desirable for silk-waste.—As regards protection for silk-waste industry, I do not recommend any sort of bounty to the present inferior quality of silk-waste available and in the present disorganised state of the Industry for the following reasons:—

- (1) There are millions of lbs. of silk-waste accumulating in stocks both in Bengal and Mysore. But most of the silk-waste is in the hands of middlemen who have stocked it in the expectation of the raise of price. It is not desirable that the middlemen be benefitted at the cost of Government.
- (2) Further the bounty if given is meant for the reelers who have already disposed off the goods to the middlemen.
- (3) Even a bounty is given for the future production of silk-waste its distribution is not a simple matter as the reelers are distributed on an area of 1,000 villages.
- (4) Further if the bounty is given, I believe, the Government of India will ask the Provincial Governments and Durbars respectively to grant it. For, it would be anomalous for the Government of India to grant it to few Provinces and make an exception in a case such as Kashmir, where sericulture is a State Monopoly, and cannot claim any bounty from an industry from which it is deriving its revenue.
- (5) In case the Provinces are to give the bounty from their funds, then I should oppose the move; because, the Mysore Durbar has to spent a considerable amount for the Sericultural Industry as a whole if the industry is to be brought in a position to defy its rivals.

Protection for silk fabrics.—(a) All such fabrics which are not manufactured in India may have a duty of 50 per cent. *ad valorem* levied on them.

(b) The duty on such silk fabrics imported into India and which are also in India may be raised to 100 per cent. *ad valorem*.

(c) An additional anti-dumping duty be levied both in case of fabrics which are imported into India as specified in answer to question 55.

58. As a result of protection to silk yarn and silk fabric the price of both silk and silk fabrics will raise up. As a result of it demand for silk fabrics will go down, and the number of looms will lessen. But, it is possible that these will be restored by using them for high grade cotton.

60. Yes.

(1) About a rupee less per lb. of silk.

(2) Considerable reduction can be made by cultivating tree mulberry introducing foreign varieties of mulberry, and by use of artificial and organic manure, by use of disease-free layings of cross-bred variety, pre-

venting loss due to diseases, introduction of cocoon market, and popularising machinery for silk reeling, and silk weaving.

Messrs. R. C. Datt and Company, Calcutta.

Letter dated the 1st February, 1933.

We beg to send herewith seven copies of replies to the questionnaire as desired by your letter No. 36, dated the 14th January, 1933.

We regret very much that we are not in a position to give full replies to some questions owing to very short time available and hope to supplement further later on, if desired.

(ANSWERS TO QUESTIONS AS THEY ARE NUMBERED IN THE QUESTIONNAIRE.)

1. The silk industry in Bengal is a cottage industry in all respects at least so far silk-worm rearing including seed culture and cocoon rearing and mulberry plant cultivation is concerned it is purely a cottage industry and weaving too is a cottage industry. Silk reeling was done previously during the East India Company in Filature employing machinery and boilers under the management of Agents of the Company and private firms and this system continued on a declining scale down to the present age but since the year 1929; the reeling is now confined to charka on cottage industry scale. It was and is purely meant as a luxury and was introduced to Bengal under the fostering care of the Mahomedan Nawabs and continued flourishing so long the State (East India Company) gave their blessing and aid and declined owing to the lack of state help and control. Nearly half the population of the Districts of Murshidabad and Malda are dependent upon this Industry.

2. The question is too broad:—As pointed above, the industry is purely a cottage industry and as such, the management is entirely done by the head of the family with the assistance of the female and male members including children. Finance is usually borrowed from the Mahajans or the Ardatdars at the rate of 12 per cent. and the whole produce either in the shape of raw silk and silk cloth is made over to them at a price lower than the market rate and consequently the present rearer and weaver does not get an independent market price and cannot afford to wait for any better price in the market.

3. The figures are given in round numbers and are only approximate estimates:—

Year.	Quantity.		Market Price.
		Mds.	Rs.
1926-27	8,000	18
1927-28	7,000	17
1928-29	6,000	16
1929-30	4,000	12
1930-31	3,000	11
1931-32	2,000	10
At present	9

4-9. Are technical ones and we cannot answer the details except in part question 4. We may fairly say that yield of silk of Chinese and Japanese cocoons are much greater as their seed is tested before breeding and rearing is done under control and supervision of technical staff of the State while in our country silk-worm rearing and seed culture is done half hazardly and without any control and supervision by any staff other than the ignorant peasant himself. It is never a fact that any filature in Bengal has been closed down for want of cocoons but the reason is just the reverse.

Filatures closed down for falling of export of raw silk as they could not meet with supply from China and Japan and consequently cocoon production fell abnormally low.

7. As far our information goes, silk rearing and seed culture in Japan is the best and should be strictly followed in India. As has been pointed out silk rearing is in primitive style in Bengal and there has no improvement of the process. In Japan, there is testing supervisor for each group of units who grant certificate of purity and quality and free from disease and germ to seed culturists and without which rearer is not allowed to breed cocoons from uncertified seeds and that is the reason their cocoons are better and their worms don't die in large numbers and the consequently there is an all round increase of production at a cheaper cost. Whereas 90 per cent. of the silk-worm die in this country before they can form cocoons and seed is mostly diseased and germ laden and poor and the loss to farmers after the feeding of 40-60 days is enormous and the consequent cost of production of the 10 per cent. silk-worm is very high.

8. All the worms are reared from local seeds. There is no separate organisation for production of seed and nor any control either by the state or farmer exercised over the selection of seed for production.

10 & 11. Mulberry leaves are the only food for silk-worms in Murshidabad, Malda and Midnapore. Mulberry is mostly cultivated by the man who breeds and sometimes by other cultivator. The plants are sown in irrigated high lands (other than low lands where paddy is grown) and each year the branches are lopped off so that new shoots may grow and give an adequate supply of tender leaves for the worms. In this way a plant will last 3-4 years, then they are replaced with new plants. The cost for cultivation per bigha is rent Rs. 5, manure, cowdung and oil cakes Rs. 10 and labour Rs. 5 and the sale price of leaves Rs. 25.30. No other information available.

12. Nothing is being done.

13. 90 per cent.

14. Can't say but the causes of death are not investigated sufficiently.

15. Climate is not essential as the three Districts which were flourishing for many centuries, e.g., Murshidabad, Malda and Midnapore do not enjoy temperature between 75°-80° F, nor humidity of 50 to 70 per cent.

16-18. Nil.

19. The breeder usually sells the cocoons irrespective of the state of the market. The average yield of chasam is one maund of waste to one maund of silk reeled.

20. Now-a-days since 1929 the whole of the production of raw silk is from charka.

24. Indian filatures are at a disadvantage in as much the price of the cocoons is rather high owing to the high percentage of death of silk-worms and the total cost of rearing has then to be apportioned between the remaining small number of cocoons produced.

26 & 34. The most economical filature must be of at least 1,000 reeling wheels and the capital required for block account including plant and machinery is Rs. 10,000 approximately and the working capital for storing cocoons for a month at least will be Rs. 60,000, which is usually borrowed at 10 to 12 per cent. interest.

37. Silk weaving of various kinds of clothes, embroidery, hosiery and a new use is made in very small quantities of coarse silk from Midnapore in belting by the Bengal Belting Company, Limited. The last use has been possible owing to abnormal fall in price of silk.

35 & 36. No spinning of waste is done in Bengal and most likely in India but there is a great prospect in Bengal for such a factory. No throwing is done in Bengal.

38. At least the production at the present scale is far less than the demand and will take a long time to equalise the demand.

39. One-fourth of raw silk produced, is consumed by weavers in Bengal and 3/4th is exported to other parts of India, viz., Benares, Nagpur, Sholapur, Bhagalkote, Balesgard, Umreer, Pauni, Gudedgel, Surat, Bombay. Raw silk is usually sold through Ardatdars of Beldanga and Jangipur, the two centres of the Murshidabad District who finance the reelers at 12 per cent. interest and the whole outturn is sold to them at a price lower than the market price. They send in their turn to Calcutta Commission Agents for export charging 2 per cent. on Murshidabad silk and 1 per cent. on Malda silk. The Calcutta Commission Agents usually charge 2 per cent. on the contract price with the shippers. But up-country exports from Bengal is done by the Ardatdars themselves charging a little higher commission than export to foreign land.

42. Nothing is done to grade or sort Indian raw silk by means of scientific apparatus and the denierage is very uncertain. Of course the low price paid to the reelers leave no room for such accuracy but previously a somewhat rough method of sorting was done by the Agent of East India Company, for export.

44. Prices are all c.i.f. Calcutta and the figures are given in round numbers approximately:—

Japanese thrown silk five star brand.

C.i.f. price.		C.i.f. price.	
Rs. per lb.		Rs. per lb.	
1926-27	21	1929-30	15
1927-28	18	1930-31	10
1928-29	18	1931-32	6

Custom duty—

15 per cent. up to 1931.

20 per cent. from April, 1931.

25 per cent. from September, 1931.

Landing charges and toll 1 anna per lb.

45. China silk, raw, is usually imported from Bombay and Japanese thrown silk is imported from Calcutta and Bombay. Both these classes compete with Indian silk. Chinese raw silk with Bengal raw silk used for weft and Japanese thrown silk is used for warp and compete with Kashmir and Mysore silk. They come under most probably Sch. 100, Serial No. 123 of the Indian Customs Tariff Schedule.

47. Chinese and Japanese silk is superior to a certain extent in colour, winding qualities due to greater skill in reeling and better types cocoons. But if the price of the Indian raw silk is increased to the then previous level these defects will be removed and we have proof for these from correspondence with Kashmir Durbar and Mysore Durbar. It is the uneconomic price due to Japanese and Chinese competition, that greatly militates against any improvement of quality. Given a reasonable price and protection for a sufficiently long time at least 10 years these defects may be easily removed.

48. Sudden fall in the Japanese yen, has greatly cheapened their exports of silk to India. Previously in 1927-28 yen stood at 80-90 and the price of Japanese thrown silk was Rs. 21 per lb. c.i.f. Calcutta and the present price is Rs. 9 per lb. c.i.f. and yen came down to 120. Yes.

49. As far our information goes no waste is imported to India.

50. There has not been any serious attempt in India for establishing a spinning factory from silk waste. Two factories most probably Choi Silk Mills, Limited, Ahmedabad and Alliance and Sasoon Mills, Limited, Bombay, started spinning silk yarn from waste and we supplied them some waste

in 1928-29. But no attempt has been made in Bengal. The present is the most opportune moment for starting a Waste Spinning Factory in Bengal as there has been no export of waste for the last 3 years and the price is abnormally low and there is a dead stock of at least 10,000 maunds of waste in Bengal. France and England which formerly used to take large quantities of silk waste from Bengal have now stopped as they prefer Chinese waste better. There is no prospect of reviving an export market for waste and unless use is made of them, the raw silk cannot be produced cheaply in Bengal. At present the reeler has to make the price of raw silk inclusive of a percentage of waste lying unsold and if he can find a better market and some price for waste, he can make the price of raw silk lower. Capital required for starting a spinning factory in Bengal to consume the quantity of waste available is at least Rs. 3,00,000 including working capital. A comprehensive scheme for starting a waste spinning factory in Bengal has been formulated by our Mr. P. B. Das, M.A. (Com.), B.L., F.R.Econ.S. (Lond.) who is expert in this line and has studied the Silk Industry and especially the waste-spinning in all its detail and he may enlighten you in all details.

There is a great market for spun silk yarn and cloth in India and there is every reasonable possibility of capturing the home market (now dominated by China and Japan) if the industry is given some state help in the form of capital. But a great amount of technical knowledge is necessary for degumming of waste silk and spinning as this is an entirely new venture in India. Government should send somebody to study the methods of degumming and spinning in France for a year and so to ensure better working of the spinning mills.

As far we know from our actual experience and foreign connections with Messrs. Chabries Morell and Company, Lyons, with whom we have had large export of waste previously, that at least degumming of silk-waste in India would fetch a much better price in France and that could easily be done.

51-55 & 57. The serious decline of the sericulture Industry in Bengal are due mainly to—

(1) Hopelessly primitive methods followed in silk rearing and seed culture there being no selection of worm free from disease for seed-culture and the most unhygienic process of rearing resulting in very high percentage of death of worms. In fact the worms in Bengal are so poor in health and so infected with germs due to sad neglect for centuries, that only way to revive the Industry is to import better seeds from Japan or Italy and to exercise rigorous control over selection of cocoons for seeds and sanitary process of rearing.

In fact we would strongly urge that seeds must be distributed through Government agency and must be cultivated by it, otherwise imported seeds given to farmers and no control being taken afterwards will inevitably result in deterioration.

(2) The method of reeling is also very primitive. In order to bring out good and uniform quality of Bengal raw silk (which is world famous for its glaze in spite of poor quality), most up-to-date methods must be taken in a moderate sized filature in order that uniform quality may be maintained. Then and then only we can compete with Japan and China silk which possess better winding qualities and are uniform in denierage.

(3) Marketing facilities for cocoons and raw silk is hopelessly under the clutches of the Mahajan and Ardatdars whose interests and commission almost finished all the profits of trade and the poor farmer is left to nothing for his toil. As the industry is largely on cottage industry scale, the best way to remedy these defects will be to organise the production and marketing on co-operative basis with strict Government control.

(4) The present method of levying *ad valorem* duty is highly deplorable and especially owing to severe competition from Japan and China. The better method of levying duty on such goods of widely fluctuating prices,

would be specific as in the case of *Sugar*. That is by fixing up a tariff valuation of different qualities of raw silk and then levying at least Rs. 5 per lb. on raw silk and Rs. 7 per lb. on thrown silk at a specific rate for at least 10 years. This will have the immediate effect of raising the price to our minimum-economic standard price.

(5) There is no immediate prospect of reviving export trade in waste as the foreign market is practically unwilling to take Indian waste in spite of such low prices. The real remedy for the waste silk is to start spinning mills to utilise them. As the industry will be highly technical and a new venture in India, some amount of state help in the nature of cheap capital charging low interest, should be given. The Government should also award some scholarships to those who would be in a position to be of real help to start this industry, so that they may study the methods in France and England for at least a year.

The causes of the present decline in the industry are of a permanent character and unless a systematic policy beginning from the seed culture, rearing, reeling, marketing and waste-spinning is followed, no good will be done to the Industry by merely raising the duty to a protective level. Further in order to watch these improvements and to promote further research and encourage export of silk an Indian Silk Association consisting of manufacturers and dealers must be formed (as is the case with Tea and Jute) with branches in Mysore, Bengal, Bombay and Kashmir. A portion of the duty and some lump sum grant and a subsidy from the Government may be given to form the nucleus of the funds of the Association.

There has been at least two silk committees emphasizing piece meal legislation but the Industry through sad neglect has now come to such a pass that a wholesale and systematic policy embodying an all round improvement must be followed boldly for at least 10 years, otherwise the prospect is that the industry will be totally wiped out from India.

56 & 60. The Sericulture Industry in Bengal, possesses the unique advantage of abundant supply of Raw materials in Mulberry leaves and fine soil for its cultivation and a climatic condition which once made her the biggest exporter of raw silk during the time of the East India Company. The industry has been in this province for nearly five centuries and has been greatly localised in three Districts of Murshidabad, Malda and Midnapore. Half the population of Murshidabad and Malda and one-tenth of Midnapore is dependant upon this Industry. There is no want of labour for this industry skitted from cocoon rearing to weaving. As has been pointed out above, the industry is in immediate need of protection and state help and unless something is done quickly the result will be that the industry will be totally wiped out and the large of number of population hitherto dependant on it, will be thrown out of work in these abnormally hard times.

The industry without any help has stood the competition for so many centuries but is now succumbing owing to inherent defects in it neglected for so many centuries and there is every possibility of its revival at least to capture the home market which is a very large one and growing, if a thorough reorganisation with a specific duty for 10 years on the scale as suggested will certainly make it possible for the industry to do away with protection altogether.

Our firm is established for almost a century and we were large dealers in Bengal raw silk and waste for export to France and England. We have our manufacturing business in silk at Benares and we also deal substantially in import of Chinese and Japanese silk. The policy and the rate of duty will not affect the handloom weavers rather we expect that the price of silk and silk cloth will go up. The manufacturer will be in a better position to give better wages to weavers. We used to pay Rs. 3 per piece to weavers but due to low price of silk we now pay Rs. 1-8 to Rs. 2 to weavers at Benares.

We have already alluded to the amount of reduction in the cost of cocoons and raw silk and suggested the means whereby those reductions could be brought about.

We regret very much that the very short time at our disposal, does not afford us sufficient opportunity of giving detailed and full replies and may offer further details later on.

M. A. Qadir, Esq., Bombay.

Letter dated the 2nd February, 1933.

I am sending my report in connection with the Silk Industry. Please oblige me by acknowledging them. I am always at the service of the Board to help them with whatever lies in my power.

Enclosure.

REPORT SUBMITTED TO THE INDIAN TARIFF BOARD BY M. A. QADIR, Esq., B.Sc. (TEXTILE EXPERT), C/O IMPERIAL MILLS, MAHALAXMI, BOMBAY, IN CONNECTION WITH THE SILK INDUSTRY.

Prelude.—I do not think that at present I am in a position to give the Board any statistical data on account of my absence from India during 1928-1932, in connection with my studies in Textile industries. After my arrival from England in July, 1932, I spent two months on behalf of the Government of Mysore in preparing a scheme as to "how the present condition of the handloom weavers can be developed" in connection with the Silver Jubilee Technological Institute (under contemplation). During this tour I had the chance of studying by coming into personal contact with both the cotton and silk handloom weavers, and hence I think that I am in a better position to answer the following questions supplied by you:—Questions 2, 19, 30 (ii) and (iii), 34, 37, 47, 50 to 53, 55, 56 (A), (B) and (C), 58 (a) and (b).

The present condition of the silk rearers and throwers in the State of Mysore.—The sericultural industry has been established in the Mysore state on the principle of cottage industry. The silk worms are reared individually by private people mostly farmers (ryots) on cultivated mulberry leaves. They sell their produce to the local merchant of their town or village either as cocoons, or opened on locally made charkha. Most of the farmers being very poor are indebted to this local merchant, who advances them money periodically on compound interest ranging from one pie per rupee to four annas per rupee, per month. They being ignorant of the tone of the general market, and majority of them not knowing where and how to sell, and above all being tied up to sell to the very merchant to meet their debt, are always at a loss, with the result that they do not seem to take any real interest in rearing the silkworms, which is quite obvious. The Government of Mysore is giving them every help, in sending their own men free of cost, to help them and guide them in rearing the silkworms and get the silk out of them, and in case of need supplying them with seed, but yet they are unable to take any advantage out of this aid and thus better their own conditions. There are also experimental stations maintained by the Government at various centres to help these people further. The reason for their deplorable condition as far as I can see is due to their improper organisations, financial difficulties, and lack of co-operation and education amongst themselves.

How to organise them.—I think if co-operative societies are established amongst these people to advance them money in case of need, and purchase the silk from them either as cocoons or thrown silk, or sell for them as their agents and keep informing and instructing them with these methods that are necessary for their development in their trade, such a system will

work very profitably for both the parties. These can be established as limited concerns, under the patronage of the local governments, staffed by good technically educated people, to give more confidence for the investment of capital. In this connection I will be very much pleased to draw the attention of the Board to the following organisations abroad:—

“Chamber of Commerce, Manchester.” This body helps the manufacturers in furnishing them informations as regards the various types of markets abroad, and also gives them the addresses of the merchants of other countries.

“Twentsche overseas Trading Co., Netherlands.” This body does the trade in the home made articles abroad, specially textiles by engaging her own men who go abroad as agents and sell their goods.

“Comptoir Cotonnier Francais, France.” These control the import and export trade, in selling their goods through their own agents abroad.

Such a body therefore should always be in touch with the world's market apart from the home market regarding the fluctuation of prices, and try and find out other markets for their own produce. If such a body were to work like the Indian Chamber of Commerce, who are unable to give you full information about their own local market, it might prove to be a failure. Such an organisation might appear to some a very impracticable concern, but I think, if one were to weigh it up minutely, it will appear to be easily workable with a determined effort on the part of the organisers. One will have some difficulties at the very outset, but they will be over when once it is started on very sound financial basis. Such a concern will be very advantageous, because the middlemen's profits can be easily eliminated the only middleman being this concern, which should through her agents supply the consumers directly. If such concerns were to be established in various silk growing centres, either as separate bodies or amalgamated bodies, they will, I am sure will work profitably.

A great majority of these silk producers are not in a position to wait and sell their produce in a good market, as they are very much hard pressed financially. Such an organisation can very easily advance them money on such occasions on the strength of their raw product, so that they can wait and sell their goods in a better market. The concern can also purchase from them the produce and sell it in a better market. Such a concern if it is well organised will prove to be a very good paying concern.

Nature of silk, and how it can be improved.—I had the chance of comparing the Mysore silk with that of Japan, France and Italy. There are two chief defects which are noticeable from the manufacturing point of view. The Mysore silk is comparatively coarser and weaker and its stretching properties are also not very good. I gave some of the silk to one of the manufacturers in Macclesfield (Lancashire, England) who was also of the same opinion, with the result that its value is undermined. This I think, can be improved, if we work on the principle of cross-breeding, with different varieties of silk-worms as follows:—

Japan with that of Mysore,

Bengal with that of Mysore,

Kashmere with that of Mysore,

Italy with that of Mysore,

or in some other combination. Such an experiment might yield a very good insect, which will be able to produce a very good silk both from the manufacturing and commercial point of view. It is my own experience that such a breed proves to be very good. Such experiments require a good deal of patience and time.

The state of Mysore is in a better position to conduct such experiments, as they have experimental stations at various centres at their command. Side by side with these it is better to carry on experiments on the fertilisers. In this one has to analyse the soil first, and then accordingly fertilise it by changing the proportions of various ingredients used, in definite propor-

tions and note the result on the crop as well as on the nature and production of silk. I attach importance to this on the phenomena of how the silk insect feeds voraciously during its early stages. The food has I think a decided effect on the nature of the silk. Such experiments under careful control are bound to yield very good results. Whilst making changes in fertilisers the composition of silk should be borne in mind, and batches of insects should be fed on the leaves grown on differently fertilised plots, and they should be carefully marked.

The present condition of the silk labour.—The present labour which is employed in this industry is uneducated. They are not in a position to make use of the highly advanced information which is given to them, which is mostly as I am given to understand academical. These experimental farms are run with the help of mostly modern implements which are beyond the means of a farmer to purchase, hence he is content with his primitive ones.

There are no proper institutions where they can get informations on the most modern methods, which should help them to develop this industry. I have come in contact with several people who are using an old locally made charka for reeling the cocoons from silk, so that the time taken to do the whole job on this has no comparison with that of the modern power machine. These charkas have one great disadvantage in them, that at the time of entanglement of the thread, it breaks so that it has to be stopped for piecing up. There is no appliance by which this breaking can be stopped. If this charka is improved the speed at which the work will be done will be appreciably more, and the results will also be good.

It is necessary that the local Government should be prepared to spend more money on imparting education to these workers by lantern slides and practical demonstrations, and educate their children technically on modern scientific principles, without which any amount of safeguards will not be of no use. Our aim ought to be to educate these people so that they are able to stand on their own legs. Their illiteracy has to be overcome by demonstrations in showing and teaching them those things that are of primary importance. Such demonstrations should be simple and easily understandable.

Present type of technical education in India.—We are badly in need of technical education, everyone of us can not afford to go abroad for this. In a population of 315 millions there are hardly half a dozen institutions meagerly provided with machinery. The Victoria Jubilee Technical Institute of Bombay is the biggest of all, where the machinery is of bygone days, and it is so insufficient that the students cannot get thorough knowledge. There are about fifty students in each branch of the textile class, and about ten looms and one set of old spinning machinery, without any facility for making fancy yarn and such other things. Under these circumstances it is not possible for each and every student to get to know very efficiently about this industry. It is not possible also for the lecturer to pay individual attention, hence to satisfy all, he also adopts the spoon feeding system of training. The students on the other hand prepare themselves to get through the examinations. They have no idea at all to get to know the various technical details, which are quite necessary for one to be a successful technical man. If more technical schools are opened and run on good principles with all facilities at their command, as it is done abroad, I think they will prove far more beneficial and will help our country to develop industrially very soon.

How to improve upon the technical education.—There should be a provision in these institutions for night classes, so that those people who are actually in the trade, if they want to improve their condition by undergoing further education they may do so. Such classes for such people will always be a great help towards the further advancement of the industry. There should be a system in these institutions of allowing students to take up special courses for one day in a week for instance in the case of silk

industry which can be divided into its various branches of rearing, cultivation, reeling, weaving, waste silk spinning, etc., it is possible that some might not have the chance of undergoing full training, and so they might take up only one subject, like rearing and cultivation and so on, there should be facilities for such things as well, so that almost everyone is equally benefited by these institutions. They should never be affiliated to the universities, otherwise the idea of imparting sound practical training along with the theoretical one will not be achieved, because most of the time will be spent in other subjects, which I think will not be of any immediate use to these people for whom these institutions are opened. Those who know about the College of Technology, Manchester, will corroborate my statement, that most of the time of the students, who take up the degree course is wasted in teaching other subjects, which do not help them in their technical line immediately, and it is done at the cost of the other technical subjects, so that the students that come out from such an institution are not of so much technical help as they ought to have been. So we must not follow blindly other people and commit the same mistake.

Lack of such institutions and the impartation of technical knowledge as suggested and similar other circumstances, have been the cause of our being unprogressive industrially. Our labour and people directly responsible for our industries know as much as they were taught, and they have made no progress towards its development. With the help of such institutions, I think any silk or other textile industry will be established on very sound basis, and after some years of hard labour this industry will be able to face any competition in the open market.

Present condition of labour and its mentality.—The labour as it is, is uneconomically cheap in comparison with other countries. Here a labourer has no sense of duty, and is unable to realise how he is proving detrimental to the economic development of the country. If one were to suggest to a labourer that he should be able to do twice as much work as he is doing now at present, he argues that by doing so he will throw his fellow labourer out of job, but on the other hand he has not been told that by his present way of working he will not only be out of job after sometime, but everyone else will suffer, and it will prove detrimental to the further development (industrially) of the country. The capital will become very shy, and the economic condition will be worse. If, on the other hand, he is induced to do more work in the same time with real interest, he will not only have his position secured, but will be instrumental in finding jobs for his fellow labourers, because more money will be invested in the various industrial activities, and more labour will be absorbed.

How to improve the condition of labour.—It is necessary therefore, that the labour should be organised by a responsible body, and not by such people who, in spite of doing good to the labour and thereby to the country, they put obstacles in the way and cause universal damage, as happened in the last year's textile strike of Bombay. If the labourer were to do twice as much work as he is doing now, for the same wages as he is getting now, the saving that will be made which will be about 25 per cent. to 35 per cent. of their wages, should be utilised for the welfare work amongst them, so that they are taught how to live hygienically, a part for their housing, a part to open institutions and such things for their welfare and education. Such a policy will surely solve one of the greatest difficulties which our capitalist and industrialists are facing. Side by side if the Government were to lower the taxes and further protect the industry by a high tariff wall and thus make up for the loss, the articles can be sold cheaper in the market than what they are at present, because the amount by which the taxes will be lowered can go towards lowering the cost of the article. If this is practised for a period of five years, I think this will work miracles, and this industry which is about to be succumbed for ever will be rejuvenated with a new vigour for a permanent existence, otherwise there is every likelihood of this being lost permanently.

There is one objection which might be raised by some in connection with the high tariff wall, that other countries might follow the same policy with our country. Such a policy will not affect us much, for other countries are more dependant upon us for their export trade than what we are for our export trade. On the other hand such a policy on the part of the Government either local or central will create a very good initiative for the public to come forward with whatever meagre means they have at their command, and start not only the silk industry, but the other industries as well side by side and thus meet the daily requirements of our country. This will create a phenomena of "necessity is the mother of invention". Now, when there is a wave of swadeshi movement, and a love for home made goods, this move on the part of the Government will prove to be an elixir. This will not only help the country to be economically sound, but in the long run be very resourceful for the revenue purpose.

The effect of world depression, and how to overcome foreign dumping.—Though the present world depression has affected this industry much but not as much as the foreign dumping of both yarn and goods specially from Japan. This dumping with the reduced value of their yen has overcome the existing tariff, hence to stop it further it is necessary to put a very high tariff. It is my own experience that countries like California in S. America are so particular that they do not allow money in any shape or form to go out of their country. Even in the case of students who go to other countries from California, their parents are not allowed to send money more than what the Californian Government allows them to send, the amount which a student is allowed to receive from his parents is very small. When other countries are so particular in keeping their wealth in their own land, I think our country will be justified in protecting her industries by tariffs against the foreign trade and dumping, which is done to ruin us.

The State of Mysore, and how far it is suitable for this industry.—The State of Mysore, so far I have studied, is very favourably situated owing to its temperate and humid climate and cheap electric power available. The temperate climate from the labour point of view is also better, as it makes them to work harder, and does not take much out of them. The water available is soft and neutral, which is always beneficial for the Textile industry in general, and silk in particular. The temperate and humid climate adds to the weaving properties of all textile fibres, by not allowing them to become dry.

The silk producing centres in the State, and how the State should move to establish this industry on sound basis.—In the whole State of Mysore there are four chief centres for silk growing, Kolar, Siddelcuttah, Chanpatna and Maddur. All these places are well connected by railways and bus service. All these places are within three to four hours run in bus from Bangalore which is the biggest trade centre of the State. If textile schools specially for teaching silk growing, rearing, throwing, weaving, waste spinning, dyeing, printing and finishing are established in at least two central places or a big one in Bangalore with all facilities, and teaching the whole course in two years time, I think the industry will develop very well. This will turn out better labour and will encourage people to carry on independantly. The initial expenses to establish such institutions will not be much. If you want me to go into the detail working of such institutions as regards the syllabus and course of study, the machinery and other necessary things for the institution, I shall be very much pleased to do it. But such institutions should never be staffed by foreigners, as this is a very common mistake to which all our institutions are a victim. The most obvious reason why I am against it is that the foreigners being absolutely ignorant of our mentality, are not in a position to impart to us the knowledge in the same way as an Indian will do. The students themselves observe a very reserved policy and do not come forward with their difficulties as freely as they might do with their own countrymen. The mentality of an Indian student is not the same as that of a foreign student abroad, where education is looked upon to a very great extent as a business.

like affair. In India our traditions are entirely against such ideas, hence it is necessary to have such institutions staffed by Indians. There is one thing about which many will say that our people are not as capable as the foreigners are, but I attribute it to our unfortunate inferiority complex, and also to the low pay which our people get, otherwise our country can boast of many intellectual brains, who under proper guidance, encouragement and co-operation can do wonders.

New lines of improvement in the silk industry.—If we restrict on the other hand only to silk rearing, reeling and throwing, it will not be as beneficial as it will be, if we were to go a step further, and make it a finished product. By doing so, we can solve one of the keenest problems of unemployment to a certain extent. The present condition of the silk handloom weavers is very pathetic, lack of knowledge, and lack of proper and resourceful sources of information and improper protection from foreign exploitations have brought them to a very low position economically. Their knowledge as regards the science and technicalities of fabric structure is very limited. They are not in a position to produce any silk article in the market and wait till it is sold, partly due to their living from hand to mouth, and partly due to their being unable to stand foreign competition. Their methods of weaving are very primitive and uneconomical. One man to weave one sari about nine and a half to ten yards requires seven to twenty one days working at the rate of 10 hours per day on the handloom. The cost of production at the rate of one rupee per day becomes enormous. The same work if done on power loom, will enable him to weave two such saris per day very easily. The cost of a power loom ranges from Rs. 400 to Rs. 1,200, depending upon the nature of the loom. The loom costing Rs. 400 will be able to weave plain cloth and such fabrics where no weave details are required, it can be made to weave cloths with fancy borders on either side of the selvedge with an additional mechanism, which will not cost more than Rs. 50 to Rs. 100. The costlier loom commonly known as jacquard can weave elaborate designs and plain cloth as well. I know that the Government of Mysore is helping the people by advancing them money and machinery but unfortunately most of the deserving cases are not benefited by this scheme. The following figures show the cost of production on both hand and power loom. The figures for the power loom have been calculated from a small mill of 25 looms in the state, which is weaving silk saris and the like. If this mill is properly managed under good technical control, it will yield more profits than what it is doing now at present.

Cost of production of silk sari on handloom.

	Rs.	A.	P.
Opening the yarn, 1½ lb.	0	3	0
Sizing	0	2	0
Bleaching and dyeing (acid colours)	0	4	0
Weaving wages	7	0	0
Cost of yarn, 1½ lb.	10	0	0
Total	17	9	0

Cost of production of silk sari on power loom.

Ends—100, Picks—100, Loom speed—100 picks per mt., One loom per weaver, Working hours—8 per day.

	Rs.	A.	P.
Winding and warping wages	0	2	0
Weaving wages	1	0	0
On cost (includes profit, depreciation, establishment, etc.)	1	0	0
Cost of power	0	0	3
Dyeing bleaching and sizing	0	5	0
Cost of yarn, 1½ lb.	10	0	0
Total	12	7	3

The above factory is supposed to be one of the best managed factories in the State. There are 100 labourers who work in the following capacity. There is a staff of one manager, three clerks, and two overlookers with two assistants:—

- 25 men for 25 looms.
- 5 men for dyeing and bleaching.
- 5 men for back beam and weavers' beam warping.
- 35 boys.
- 10 girls.
- 20 women.

The average production per loom as I have noticed is about 10 yards. The lower efficiency is due to bad warping and bleaching. In the former case many ends are missing, in the latter case the silk is bleached and degummed by boiling with a weak solution of soda ash and soap, which makes the yarn very weak. The winding machinery is locally made, which requires much improvement, and thus it can be made very efficient.

The present rate of working of the mill with 25 looms.

Amount of cloth produced per day . . .	250 yds.
	Rs. A. P.
Wages paid to produce the above cloth . .	73 8 0
Wages for producing one yard of cloth . .	0 4 8
Expenses for establishment per day . . .	16 0 0
Cost for one yard of cloth	0 1 0
Depreciation value and interest charged on the investment of capital for machinery at the rate of 5 per cent. per day	5 13 4
Cost on producing one yard of cloth . . .	0 0 4·5
Expenses for stores oils, etc., per day . . .	4 0 0
Cost on producing one yard of cloth . . .	0 0 3
Rent of building per day	8 0 0
Cost on producing one yard of cloth . . .	0 0 6
Cost for dyeing and bleaching one yard of cloth at the rate of 5 as. for 10 yds. . . .	0 0 6
Cost of power consumed per day	2 6 5
Cost on producing one yard of cloth . . .	0 0 1·8
Total cost for producing one yard of silk cloth excluding Government rates and taxes and the cost of silk	0 6 11

There is still a great margin of improvement in lowering the cost of production. A good technical man well educated will be able to lower the cost of production still. If the labour were to manage two looms instead of one, and make each loom to produce 20 yds. of cloth instead of 10 yds. there is a great margin of improvement and lowering the cost of production. The amount that will be saved by making the labour to do twice the work can be spent for their welfare work. If the Government also were to lower the tax and thus encourage the industry, this amount can go to lower the cost of production. The revenue that will be lessened thus can be increased by the high tariffs on imported goods. By doing so, we will be able to sell the silk good very cheaply. By following my suggestion very ardently and zealously, this industry will not only be able to stand on its own legs, but will be able to compete in the open market. The above figures reveal one important factor, that the power in the Mysore State is very cheap, and is easily accessible.

I do not think that any attempt has been made for the development of silk-waste industry. By the installation of the silk-waste plant we shall be in a position to produce cheap and nice cloths and hosiery articles, as suitings, socks, underwear, and similar other type of fabrics. All these industries can be opened, provided the capitalists are assured of their income, and guarded against the risks. The only way I can see of making the Indian capital bolder than what it is to-day is by acting on my suggestions.

How to finance the industry.—Some one suggested that India has not got so much capital to industrialise it, but I beg to differ in this. We all know that most of our capital is invested in ornaments and jewels which is more or less a dead capital. Some will say that it is a lifelong tradition of wearing jewels which will take a very long time to get rid of this. If one were to analyse this tradition, we shall come to this conclusion that our people were unaware and still do not know the best way of investment. If they are properly guided and assured that their money will be secured. I think that most of this will be available for the development of the industries. If we take a family on an average composed of five members, out of 315 millions there will be 63 million families, if we take that each family is in the habit of spending Rs. 10 annually for jewels, then 630 millions rupees are spent. If we take even 1 per cent. of these families to realise and invest 50 per cent. of such an amount towards industries, we will be able to get annually Rs. 31,50,000 without much difficulty. If this were to continue for ten years, look at the facilities there will be for opening various industries at various centres. If this scheme were to be restricted even only to the various provinces, I think each province will be self-supporting within fifteen years time. To achieve success in this a good propaganda supported by the Government should be carried out. In support of my statement I beg to draw the attention to the following exportation of gold from India during last year which amounted to 1½ billions rupees. If this would have been invested towards industries, just imagine what would have been the economic condition of India. We are obliged to organise as suggested in order to stop the wealth going out of our country which is crippling us economically.

There is one more factor about the question of overproduction which might enter the minds of some. In this connection, if we were to say one yard of silk cloth to be consumed annually by every person, we require 350 millions yds. of cloth, if we calculate that 10 yds. of cloth require one lb. of silk then there is a need of 31½ millions lb. of silk yarn. If we say that 20 yds. of cloth is produced by one loom per day then we are in need of 50,000, looms the labour that will be required if we were to calculate on this basis is as follows for a factory of 25 looms:—

18 men.
10 women.
5 girls.
18 boys.

To meet the demand of our country as calculated we are in need of the following labour to work permanently:—

Men	36,000
Women	20,000
Girls	10,000
Boys	36,000
Total	<u>102,000</u>

If we charge at the rate of 12 annas per yd. of silk then 8½ millions rupees will stop from going out of our country. When we have such a great margin only in one industry, just imagine how much we will have in the

other industries, and how much we will be able to stop from going out and thus keep it here in circulation, provided we protect and develop all our industries as suggested. By doing so, these industries will be able to contribute after sometime for such institutions that are necessary for their existence on competitive basis.

In my *interim* scheme submitted to the Government of Mysore in connection with the establishment of the Silver Jubilee Technological Institute, I have made a mention of several factors, though I have not submitted a detailed working scheme, which I have reserved for some other occasion. That institute under contemplation can serve very well in imparting knowledge to the people interested in the silk industry by having a silk department under textiles. If the Government of Mysore were to undertake the training of young men as well as those who are already in the trade, she may do so, by making use of the Government silk weaving factory in Mysore. She can as well have a course of training for two years in silk. Out of these two years 6 to 10 months should be devoted only for the practical training as follows:—

- 1 month for silk throwing.
- 1 month for silk reeling.
- 4 months for silk weaving.
- 3 months for silk dyeing bleaching.
- 1 month for silk finishing.

After the completion of first session the students must be allowed to work in the Government silk farms to undergo the practical training in actual rearing, breeding, etc., of silk-worms. I think, the whole course for such a person who wants to start independantly after leaving the institute can be finished in two years time. In the case of those who are already in the trade, they should be allowed to attend such classes at least once a week, and the time table should be arranged accordingly. To facilitate their to and fro travelling from their place of residence cheap rate return tickets should be given to them. In this way things can be done very smoothly.

If this industry is protected as suggested, it will come up very rapidly, and this will act as an impetus to other textile industries in particular and other industries in general, and these will also try to come forward side by side with this. This will in no way affect the handloom weavers at all, but on the other hand they will have ample chance to produce whatever they can and sell it in the market. There is no doubt that, if the power looms were to take the place of handlooms as it has happened in the cotton industry, the handloom weavers will be hampered, but there is always a chance open for them to earn whatever they have been earning and even more by working in one of such mills as weavers. Such experienced people will be a great advantage and help to the industry. If, on the other hand no means were adopted for its protection by tariff walls or some such things, and if the foreign dumping were to continue as usual, these poor handloom weavers will have nothing left but to face starvation.

The greatest advantage we have, is our resourcefulness as regards the raw material, and a huge population, though this population dresses scantily, but requires the biggest organisations to keep even this market supplied.

The introduction of rayon has taken some of the silk trade, and this is the greatest competitor in the market. It covers 20 to 25 per cent. of the textile trade, the main reason for its popularity is its cheapness and the public having less money to spend. But still it cannot outplace silk from the market.

If my suggestions are carried out with a determined resolve and unity, never allowing the communal problems to enter in this field, I think we will be able to achieve our aim in a very short time.

Mr. Kalidas Trikemdas Chevli, Surat.

(1) Letter dated the 4th February, 1933.

With reference to your Circular letter No. 53, dated the 20th January, 1933, we beg to enclose herewith our reply to the Questionnaire for the Handloom Industry, with six spare copies.

We regret we are not in a position to supply all the statistical information required by you at such a short notice, as there is no central organization that could collect any such information in a place like Surat which is such an important centre of Handloom Industry. Though fully appreciating the short time at the disposal of the Tariff Board, we cannot lay too much stress on the fact that a single day's visit to Surat would have done much greater service to the city and to its important Industry.

Enclosure.

REPLY TO THE QUESTIONNAIRE FOR THE HANDLOOM INDUSTRY.

1. (i) The number of weavers in any of the three divisions cannot be ascertained, as weavers usually have to shift from silk to cotton and *vice versa*, just to keep themselves employed as far as possible. It may be mentioned, however, that purely silk weavers comprise a very small minority at present, while there is no room at all for purely cotton weavers, all the handloom weaving in Surat being confined to silk, artificial silk, spun silk and mercerized yarns only.

2. Weavers get their raw materials which are both Indian and imported. The general practice in Surat is for the wholesale manufacturers and dealers to supply all raw materials to weavers who do not purchase and weave on their own account.

3. All the operations from (i) to (iv) are usually performed by special artisans and not by weavers themselves.

4. All kinds of silk, both Indian and imported, can be used for warp and weft, different kinds of cloth requiring different qualities and kinds of raw silk.

5. All kinds of cloth from (i) to (xi) are woven in Surat though the local enterprise has to face the keenest competition in the case of sarees, loongies, handkerchiefs, suitings and shirtings.

6-9. Can not be ascertained.

10. Spun silk is used in the manufacture of sarees, dhoties, suitings, shirtings and gaji (satin).

11. Not usually.

12. Brokers play an important part in the sale of silk.

13. The first quality of Kashmere and Mysore silk compares very favourably with the best imported quality, though the prices of Indian silk are prohibitive. Merchants therefore cannot see their way to push Indian silk in the market.

14. No.

15. Yes, adversely.

16. (i) to (vi) Cannot be ascertained. Weavers are usually paid per piece according to kind of work.

17. So far as handloom industry is concerned help from Co-operative Societies in any form whatever is conspicuous by its absence.

18. The manufactured article has generally no local demand, though there is a good demand in the rest of India as well as in Africa, Arabia, etc.

19. The demand for natural silk is alarmingly on the decrease.
20. Kashmere, Bengal and Mysore in India; China, and Japan.

(2) *Letter dated the 4th February, 1933.*

With reference to your Questionnaire regarding the Silk Industry, we beg to enclose herewith our reply to the same with six spare copies as desired by you. Surat is concerned chiefly with the consumption and not with the production of raw silk. We are therefore not in a position to any of the questions with reference to sericulture.

REPLY TO QUESTIONNAIRE REGARDING SILK INDUSTRY.

45. Indian silk is at a disadvantage both in point of price and quality when compared to similar qualities of foreign or imported silk. Weavers require almost all kinds of silk, both Indian and imported.

46. No.

47. *Colour.*—No particular difference between Indian and imported raw silk.

Strength.—Imported silk is usually found to be much stronger than Indian silk, Kashmere silk being however an exception. First quality Kashmere silk can beat the best quality of imported silk.

Opening.—Imported silk is much more cheaper and easier to open.

The superior quality of imported silk has at least for the present nothing to do with prices, as imported silk though much better in quality is available at a much cheaper price than Indian silk. Except in a very few cases where special kinds of cloth require special kinds of raw silk, price has been the guiding factor in the selection of raw silk—whether Indian or imported.

48. Yes, exchange does rule the market to a very large extent. It would, however, be simply misleading and unreliable to attempt to give any figures, as it is a common experience with us that the market is governed by a number of other factors inseparably connected with exchange.

49. We have no knowledge of any silk-waste being imported into India, though large quantities are exported to other countries. We believe, however, that even the export business has at present experienced a serious set back.

50. The only attempts we know of are in the case of the Sassoon Silk Mills and Chhoi Silk Mills of Bombay which have small plants of their own for the manufacture of spun silk. They, however, manufacture spun silk for their own consumption only. Imported spun silk is available at so cheap rates that any New Indian enterprise would suffer from foreign competition as at least in the initial stages the cost of production would be too heavy, the output very small and the quality not quite up to the mark. The potentialities of the spun silk industry are, however, very great as large quantities of silk-waste would be available in India, not to mention the fact that the consumption of spun silk in India has grown to a considerable extent during recent years.

51. The extremely low prices of imported silk, absence of effective protection, and lack of Government support by way of research work and scientific education in sericulture.

52. The decline is due (i) to the operation of world factors from the point of view of (a) serious economic crisis, (b) extremely low prices of imported silk due to exchange, etc., (c) invasion of artificial silk, (d) flooding of Indian market with extremely cheap foreign and particularly artificial silk cloth.

(2) To the operation of factors special to India which are (a) the extremely low production of raw silk, the supply being out of all proportion

to the demand, (b) the State Monopoly of the industry in Mysore and Kashmere, where the management is usually extremely short sighted, extremely uncommercial and stupendously expensive.

53. Permanent.

55. Yes.

56. (a) Yes. (b) Yes. (c) Yes.

57 and 58. We cannot presume to make any definite proposals regarding the protection to silk industry. But we emphasise that the following suggestions should be given very careful consideration:—

(a) Simultaneously with the duty proposed on imported silk, all foreign silk cloth must be subjected to a duty of not less than double the duty proposed on imported silk. The reason for such a proposal is obvious. The handloom industry in India is a predominant factor to be considered in connection with the silk industry in India. If, therefore, a duty were proposed on imported silk only, it would naturally mean dearer foreign silk, but cheaper foreign silk cloth—a position that would naturally re-act on the handloom industry of India, one industry benefitting at the expense of the other, though the interests of the one are so closely connected with the interests of the other.

(b) The result of Protection should be that interests of the industry as a whole should be protected and advanced. Any haphazard or half-hearted measure would mean that the State monopolies would thrive at the expense of the country at large, while real, effective protection would mean production on a large and better scale due to larger public interest in the enterprise, cheaper and better silk and cheaper and better cloth.

59. Can not be ascertained.

60. Yes, though the protection alone is not likely to work miracles by way of reducing the cost of producing raw silk. If satisfactory results are to be achieved, it would be necessary for the Government to open experimental and research centres at all suitable places, give scientific education to students and give benefit of expert advice and guidance to private enterprise. Native States may also be advised to encourage the industry in every possible way. So long as the industry is confined to a few parts of India and to the two Native States of India who hold monopoly of the industry; so long as the Government ignore the necessity of a whole hearted sympathy towards the industry in every conceivable shape or form, all idea about protection and protection alone is preposterous.

Mr. S. K. Koula, Silk Expert, Bharatpur State.

Letter No. A. D. M. of 1933, dated the 4th February, 1933, from the Registrar, Co-operative Societies, Bombay Presidency, Poona.

With reference to your oral conversation with the Registrar, I have the honour to forward herewith a copy of the note on "Sericulture and some other home industries" prepared by Mr. S. K. Koula, Silk Expert, Bharatpur State, for your information. Six copies of the note are sent as desired.

A BRIEF NOTE ON THE PROJECT FOR INTRODUCTION OF SERICULTURE AND SOME OTHER HOME INDUSTRIES ON CO-OPERATIVE LINES.

There is no doubt that agriculture is an important of all industries and the dominating factor in both the wealth and the welfare of the people. But agriculture alone will not suffice to secure for the Bombay Presidency all the advantages that would accrue from the fullest development of its natural resources. It has been shown that, in other countries

small holders require the help of subsidiary industries to enable them to earn a decent livelihood, while in the Presidency some village industries as exist are carried on by separate tribes or castes, and not by the agriculturists, in their spare hours. In some quarters there seems to be a desire to see some suitable village industries helped on to a more prosperous footing not in order to afford occupation for the cultivators, but for a patriotic feeling that the cultivators and their regeneration would somehow reflect credit on the Province. The position of the economist would seem to be that some ancient industries should be encouraged so far as they provide for the workers a better income than they could obtain in any other way or until some way of earning a better income has been devised. The Industries that seem to deserve early start are Sericulture (Eri and Mulberry rearing of the worms) Lac culture, Bee-keeping, cultivation of Drugs and Medicinal plants, and perhaps Fruit and Fruit preserving. All these industries seem to be within the capacity of the agricultural classes, provided they can be supplied with intelligent guidance. Now I shall describe few of them.

Sericulture.—The word silk owes its origin to the Chinese "SZE" through the Greek "SER" and the Latin "Sericum". As China seems to have been the cradle of the silk manufacture, and the native country of the silk-worm, so it is to the Chinese that we must look for the earliest accounts of the insect and its cultivation, and we find accordingly that the ancient people possess a tradition which propose to deal the discovery of the material and the origin of the manufacture. The Empress Selling-She is said to have been the first lady to undertake the trouble of rearing silk-worm, for the benefit of her people. In a short time the rearing of the silk-worms became very popular and was speedily adopted as one of the chief occupation of the Chinese. About 550 A.D. two Grecian Monks journeyed to China, returning in due course to Europe with glowing stories of the silk-worm. They made a second journey to China returning this time with silk-worm eggs, and mulberry seed, concealed in their bamboo walking sticks. Following this event silk rearing became general in Asia Minor, Greece, Turkey, India, and a century or two later in Spain.

There is a great demand for silk in India and elsewhere, specially in America and France, the demand is considerable and is steadily increasing. There are numerous species or varieties of silk-producing worms, among the best known being (1) the mulberry silk-worm (*Bombyx mori*) which feeds chiefly on mulberry leaves, (2) the Eri (*Attacus Ricini*), a multi-voltine worm (*i.e.*, undergoes 5-6 generations in a year) which feeds on the castor oil plant leaves, and (3) the Indian Tassar a bivoltine worm (*i.e.*, two crops or generations a year) which feeds on various plants, such as *Zizyphus* (Beer), *Anogeissus latifolia* (Dhak), *Ficus religiosa* (Peepal), etc. The first two are domesticated and reared entirely indoors, while the eggs of tassar are generally made to hatch indoors, but the worms are reared on trees.

All these varieties of silk-worms fall under two classes:—(1) Those which make reelable cocoons and (2) those which make unreelable cocoons, *i.e.*, such cocoons have to be carded and combed like cotton and wool before thread can be spun out of them. The reelable cocoons are produced by the mulberry worms, while the unreelable cocoons are produced by other kinds of worms, such as Eri, Tassar, etc. The former is superior and costlier kind of raw silk of the commerce, while the latter is an ordinary kind. However, there is profit in the production of both.

Mulberry Silk-worm.—Like other domestic animals, *Bombyx mori* (the mulberry silk-worm) exists under the form of a great number of varieties which differs more or less in the colour and size of the cocoons and in the shape of the moth wings. From the colour of the cocoons the different varieties are known as yellow white and ...

follows:—the annuals, the bivoltine, and the polyvoltine or multivoltine. The annuals are reared once, the bivoltine twice, and the polyvoltine more than four times in a year. Among these the annuals are considered to be the most profitable for silk-growers on account of producing the greatest amount of silk for a certain quantity of mulberry leaves given to them, the bivoltine produce the average amount of silk and the last smallest, while the silk produced by summer and autumn rearing is decidedly inferior to that of spring. Taking the above facts into consideration the annual is supposed to be the best of all.

Under ideal conditions the temperature of the rearing house should be between 65-75° F. and the humidity should be about 70-80 per cent. The worms generally do not thrive very well if the temperature of the rearing room is above 95° F. or below 60° F. In low temperature their growth is slow and non-uniform, while in high, their growth is generally quick, but it could be adjusted by regulating the temperature of the rearing room by artificial heat or cold.

To rear one of the univoltine varieties about six weeks are needed, and the span of life of the worm also does not go beyond that period at the same time there is scarcely a place in the Presidency where 65-75° F. cannot be obtained for six weeks at some time in a year. In one district this may be easily secured in December, in another in January, while in a third in February. From the above it is clear that all the requirements for rearing the univoltine races are easily available in the Presidency, and the work can be started without any fear of danger.

Silk-worms are raised by the eggs. The larva when about to change into chrysalis stage, at its maturity, begins to spun round its body an egg shaped, white or yellow structure called cocoon, containing a continuous reelable strand of eight to twelve hundred yards long. The cocoons are dried by steam or under sun before the moth pieces through, making the silk unfit for reeling. However, the pierced cocoons also yield inferior quality of silk by spinning. To rear one ounce of seed about 25 maunds of mulberry leaves or about 50 young trees are required.

Mulberry.—Mulberry is a deep rooted plant and very hardly can grow in almost all climate, is the only food upon which the true silk-worm can thrive, so far as the experiments and practice have shown. Almost all kinds of land even rocky or stony are suitable for mulberry culture, and therefore no difficulty need be apprehended on this score, if it is desired to introduce sericulture in a new locality.

The mulberry is a tree of a great value and importance and its economical qualities can hardly be surpassed. From the root of the tree there is extracted a drug called "vernifuge" much used by the Chinese. The trunk of the tree supply good wood used for making furniture and boat building, while the bark of the branches yields a fibrous substance from which a good quality of paper is made. The green leaves are used for feeding silk-worms, and those which remain and fall are of value for fattening of sheep and goats. The fruit of the tree is used for eating and manufacturing syrup.

The mulberry is propagated by seed, graft, by cutting, and layers. There are two system of plantation—bush and big trees. If the mulberry being kept upon bush system, it is possible to take even five crops of cocoons during the year, but regular watering, annual manuring and weeding and much constant attention and labour are a necessity to maintain it. Moreover the leave of the lower part of the stem are almost stained, some time damages caused by frost are most severe, and the plant easily attack several diseases. Considering all the above facts, it is clear, that the maintenance of bush mulberry plantation is rather expensive and less profitable. On the other hand big mulberry do not require watering and manuring like bush mulberry and therefore no permanent expenses for cultivation are required. The leaves of big trees are decidedly nutritious, the yield of silk is better, and the worm are less susceptible to disease.

Moreover big trees do not run the risk of perishing by the overgrowth of weeds, or by the soil getting exhausted. To grow big trees, it is necessary to avoid stripping for the first three years. If the tree is propagated 80-90 feet apart, even in corn field, corn and mulberry may be both grown.

Appliances necessary for rearing.—As the industry should be carried on as a by-industry the rearing is recommended in one of the rooms of the cultivators dwelling, either a mud walled or a tatti house being quite suitable. The only thing necessary is that it should be neat and clean and well-ventilated. No special house is necessary for ordinary rearers.

1. Trays for feeding the worms, these are made of any material, such as split of bamboo or matting.

2. Bamboo or wooden machans on which to place the rearing trays.

3. Materials for the worm to spin their cocoons in. These may be dry straw or grass, or similar stuff which afford the worm a shelter in which to hide.

4. Knife for chopping leaves, and sickle for cutting branches, and baskets for storing leaves.

Reeling.—Silk reeling is a profitable industry and can be carried on even a small scale with little capital. The object of reeling is to put together filaments of several cocoons in a way so as to make a simple continuous, regular, uniform and round strand. This is the real raw silk thread of the commerce from which a superior and costly silk is woven. It can only be got from the unpierced cocoons, i.e., from the house of silk-worm, spun by the chrysalis. And from pierced cocoon of this and other varieties, flossy matte husks of reeled cocoons and other waste, we by spinning obtain a raw silk thread, from which an inferior and cheaper quality of silk is woven.

General remarks.—The art of sericulture deals with—

- (1) *Rearing of the silk-worm under artificial and domesticated condition.*—The main factor which has to be primarily considered, is the feeding of the insects. This is to be arranged for before any steps are taken towards rearing operations. Then come the formation of cocoons, their collection before these are pierced, by the moths and maturing sufficient number of moths to supply eggs for the future broods.
- (2) *The production of the silk from the unpierced and pierced cocoons, by reeling or Indian process of spinning.*—The reeling is done only for the unpierced cocoons of the mulberry feeding moth, which produce superior class silk. The spinning is done for all other waste and pierced cocoons of this or other moths like Eri and Tassar, yield ordinary class silk.

For producing the famous raw silk of commerce, we have to rear, one of the univoltine varieties of the mulberry feeding moths, which should be suitable for the climatic condition of the Presidency. I would suggest that 100 ounces of the best variety of the univoltine race should be obtained, when hatching approaches, these should be given to 100 families under the direction of an expert, who will supervise the rearing. It is unbusinesslike to start rearing on big scale at the start, the best plan is to add by degrees. One man and one woman, having one grown-up child, can feed in one of the rooms of their dwelling in 30-35 days, worms produced from an ounce of eggs which if properly looked after will yield one maund of green cocoons for which about 25 maunds of green leaves or 50 young trees are required. From one maund of green cocoons about 7 lbs. of raw silk and 2 lbs. of waste may be obtained.

I strongly recommend sericulture as a cottage industry and that it be gone into from the beginning to the end—in other words that the worms

should be reared, cocoons reeled, and the thread woven into silk, as this I found from experience pays the best.

The variety mostly cultivated now-a-days for feeding the univoltine races is *Morus alba*. In a country where this variety is available the rearing can be started without any loss of time. As far as I know the Presidency has not got that variety of mulberry in sufficient quantity on which a good number of silk-worms could be reared. It becomes incumbent therefore that the proper food material should be provided for. Thus to provide the natural food for the worms, it becomes necessary that the mulberry plants be raised in a nursery and when sufficiently strong to bear the rough handling, they be supplied in the villages at the cost expenditure. The plants will yield sufficient quantity of tender leaves after three years. The cost would be about two annas per plant. In the first year a small nursery may be maintained to provide 2,000 healthy plants, and these can be profitably planted on boundary lines, waste and spare lands, also on village boundaries lines in the villages. The out-skirts of fields could be cultivated with the same as in Japan. The nursery can be started now.

The special benefit of having big trees will be perceived when it is seen that all, the work in rearing worms, from the gathering of leaf to the harvesting of cocoons would be accomplished by womenfolk who cannot give much assistance in ordinary agricultural pursuits such being the case with every country where sericulture exists, mostly women and children do this work.

As regards rearing implements, the price of the whole set would not cost more than Rs. 10, and it will last for several years to come. There is a great demand for the silk fabric, sufficient silk is not produced in the world to meet the ever increasing demand. Thus there is a great field and much scope in this line not only as a commercial profitable project, but also on account of its being taken up as a cottage industry, for the spare time by the villagers in addition to their usual avocations. The whole process is so simple that even women and children can manipulate it easily.

Probable expenditure and income of an ounce of mulberry seed.

	Rs.
Outturn—	
1. Seven pounds raw silk (from one maund of green cocoons) at Rs. 8 per lb.	56
2. Two pounds waste silk	2
Total	58
Expenditure—	
1. One ounce of M. silk-worm seed	3
2. Chemicals	1
3. Trays, etc.	10
Total	14

From the above it appears that one family can earn about Rs. 44 in 95-100 days by utilising spare time, which would otherwise be wasted. An industry of this kind can also engage the unemployed labour in the villages.

With a view to train a band of willing rearers and attract the Ryot take to this cottage industry readily, it may be found advisable to commence immediately a hardy variety of silk-worm, which although yielding an ordinary quality of material, yet can be started in very short time, and yields rapid result. This hardy variety I may recommend to be taken up, is Eri silk-worm, which is a castor feeding worm.

Eri silk.—Eri silk farming is a branch of sericulture, which can also be recommended to our farmers. Eri silk is the cocoon of an insect which feed on castor leaves. They are bred entirely indoors. It is pre-eminently suited as a cottage industry as the work involved, is simple and inexpensive and can be easily carried on even in "Tatti" houses by women and children in their spare time. Assam is the home of this valuable insect. The industry shall be taken as an adjunct to agriculture like keeping of goats and cows. The cultivator can expect to derive an extra income by providing work for his family during the recess between agricultural operations. The moth is allowed to pierce an escape and therefore there is no like-killing in any of its stages, and as such even Jains and Buddhists have no scruples about its use and working.

Castor.—Castor oil plant is the best plant for Eri worms. It can easily be grown everywhere in India. There are several varieties of this plant, but apparently nearly all of them are suitable for the feeding of Eri worms. It is generally sown after the first fall of rains also in October. About ten seers of seed are sown in an acre of land. An acre of land under castor yields about 75 maunds of leaves and ten maunds of seed per year. The cost of cultivation, and manuring of one acre of land does not go beyond Rs. 30.

Like other moths the Eri worm passes through four distinct stages in its life-history. There are (1) the egg, which is quite inactive, (2) the caterpillar or worms which hatches out of the eggs and feed on castor leaves until it is full grown which it spins, a (3) cocoon of silk from which (4) the moth emerges to lay its eggs, thus completing the cycle. It is only in the second stage that the worm feed, the egg and cocoon are both incapable of movement and the moth is sluggish and does not feed at all.

The worms are hardy and shall thrive best from July to March when the temperature and humidity vary from 70-80° F. and 85-95 per cent. respectively in the Province.

About a maund of dry and pierced cocoons can be obtained from an acre of land under castor. From one maund of cocoons about 25 seers of spun thread can be obtained, and the thread can be sold out for about Rs. 175 at Rs. 7 per seer. From the thread a piece of cloth about 150 yards long 54 inches wide can be made. The piece can easily be sold out for Rs. 450, the price for a yard of white hand spun silk cloth being Rs. 3.

The rearing is so simple that bamboo trays, baskets, bamboo machans for keeping the trays, dry leaves are the only requisites for rearing the worms. The whole set would cost about Rs. 10 in all and will last for several years to come.

Eri worms shall be reared in one of the dwelling room, provided it is ventilated. Any mud walled room with thatched roof is quite suitable. Eri worms are multivoltine and completely domesticated. About six crops can be taken in a year. A woman with her daughter or son in one of her dwelling, produced worms from an ounce of eggs, which properly looked after, will yield one maund dry cocoons in a season, or say in five or six rearings.

Eri worms should be reared as a cottage industry, that is to say, that they should be reared by cultivators as a subsidiary source of income. The rearing should be done and the silk spun into thread in the rearers own house, while he is working in his field, thus providing ample light remunerative work for his female and children.

The probable expenditure and receipts on an acre of land under castor in one season (5-6 rearings, one ounce each time).

	Rs.
Outturn—	
1. 25 seers spun thread from one maund of dry cocoons	175
2. Castor seed 10 maunds at Rs. 3 per maund	30
Total	205
Expenditure—	
1. Cost of cultivating an acre of land	30
2. Ground rent	12
3. Cost of trays	10
4. Price of eggs	18
5. Miscellaneous	5
Total	75

Thus there is clear profit of Rs. 130 in a season, in other words about Rs. 21 in each rearing.

Spinning.—There are three methods of hand spinning (1) the Taku, (2) the continuous machine, (3) the charkha. The last one is supposed to be the best for the home industry.

General remarks.—The Eri silk industry has been practised in general cases as an accessory occupation of farmers, widows, and for those class of people who cannot go out to work hard to earn their living. Women can rear silk-worms indoor, and silk-worm rearing may be therefore regarded as a suitable employment for the poor but respectable women of this country, who are not in habit of going out of doors and have no means of earning their living.

Eri silk is strong and durable and it improves on use. Weaving can easily be done on *dehate* (country) loom or on the fly shuttle loom. The rearing of the Eri worms can be started now where the castor leaves are available, and about four crops can be taken before the close of the season. If sufficient staff is available, 100 ounces of seed free from disease may be obtained, and should be given (under the guidance of an expert) to hundred families. The cost of 100 ounces of seed would be about Rs. 275.

The success of the industry rest on the proper kind of seed, correct technical guidance and proper supervision.

There is no doubt that the person who wishes to introduce the industry in a new locality requires a great patience, and to take great deal of trouble in teaching the industry to the local peasantry, but this difficulty was found in every country where the industry exists, but they are surmounted it. The Bombay Presidency would have no exception to the rule, and the best thing that ought to be done is to open an Institute in the Presidency. This Institute is not required at once, but when it is desired to start sericulture on the proper footing. The object of the Institute shall be:—

- (1) To rear eggs for the rearers.
- (2) To issue pamphlets as to the best means of propagating the industry.
- (3) To train men, women, and children in the art of rearing and spinning.
- (4) To be in touch with the Indian and European markets so as to secure the best marketable value for the produce.
- (5) To open a small spinning and weaving house, so as to popularise local silk among local and other silk traders and weavers, and thus get a ready market.
- (6) To arrange silk exhibits in various centres.

- (7) To open a small museum in the Institute itself with different varieties of cocoon, silk, etc.
- (8) To arrange lecture on sericulture, and other home industries in the villages.
- (9) To supply healthy plants in the villages.
- (10) To supervise the rearing operations, and to teach other home industries. It requires no costly establishment nor expensive laboratory instruments to start such an Institution. One ordinary Pakka house, few dozens cover glasses, cups, slides, bamboo trays, and machans, also some old newspapers, etc., are the only requisites for the Institute. All these things would not cost more than Rs. 250.

Establishment of the Institute (for one year).

Rs.

Outturns—

1. Eri eggs, 600 ounces (100 ounce in each rearing)	
at Rs. 2-8 per ounce	1,500
Total	1,500

Expenditure—

1. One Inspector at Rs. 50 per mensem	600
2. Jamadars two at Rs. 12 per mensem each	288
3. Thermometers	25
4. Microscope	75
5. House rent at Rs. 20 per mensem	240
6. Miscellaneous	50
Total	1,278

The department should train some men in the art and send such persons to the houses of the rearers to show them the correct mode of rearing and supervise the operations while in progress.

Lac culture.—The cultivation of lac is another useful industry, which can be recommended to our farmers.

Certain small sucking insects, known as lac insect, feed on the juice of trees such as beer, dhak, plas, bar, gular, pipals, figs, and a few others, and secrete round themselves hard shells of reddish brown material. The use of the lac are numerous. It is employed in the manufacture of high grade varnishes, sealing-wax, gramophone records, polishes, backing mirrors, electric insulation fixing shafts, filling material for explosions, lithographic inks, stiffening hats, and covering for chocolates. Inferior grades are largely used for making bangles, trays, and delicate lacquer work, etc. The work connected with cultivation, etc., is light, requires but little labour, and need interfere but little with the growers ordinary occupation. Once the host tree is established, the crop requires but little attention, while wild trees, or those grown for shades on boundary lines, may be turned to useful account by cultivating lac on them. Two crops a year are usually obtained. The yield of lac per tree varies, and may be 10 lbs. or as much as 30-40 lbs. in the case of well cultivated tree. Although the present rates of lac are considerably low, but still it will pay something to the cultivator, without any hard labour. There is no permanent expenses to maintain this little industry. The work can be started from January next. The cultivation of drugs and medicinal plants is another useful industry for our farmers. The industry is not new to our country, it being in practice from old times, and being still carried on in many parts of our country. The industry, however, can be carried on with advantage in places where conditions are favourable. I am giving few

names of medicinal and drug plants, which could be grown easily even in the hottest part of the Presidency.

Drugs.—Senna, Tamarind, Nux-vomica, Cassia fistula.

Medicinal plants.—Abrus precatorious, Aerva lanata, Aloe verna. A detailed scheme of these and others shall be submitted later on demand. I would recommend that these home industries should be organised entirely on co-operative basis.

I believe to begin them cautiously, never attempting too many things at a time, nor too big things at the start, but only by stages. It must be added that this note is written on the basis of the writer's practical knowledge. The industries noted above do not require large initial outlay. They can be easily learnt and can be carried on by women and children in their spare time. Their produce is easily marketable.

I may propose that if not inconvenient, personal discussion would be of very great value, provided that you wish to introduce any of these industries.

Let us march on to the good goal that awaits us, and that grand goal is the uplifting of humanity itself by co-operation.

Messrs. Gurukar Jothappa and Brothers, Silk Merchants, Mudi-gundam, via Kollegal.

Letter dated the 7th February, 1933.

I submit herewith 6 copies of my replies to the questionnaire for importers and traders drawn up by the Tariff Board in connection with its enquiry into the silk industry, which was forwarded to me by the Director of Industries, Madras.

Enclosure.

1. China is the only foreign country from which competition is keenest in India. Competition is keenest in the Southern Indian markets such as Kumbakonam, Conjeevaram, etc. Competition is keenest in respect of Shanghai silks of yellow varieties, white varieties besides Canton steam flature silks.

Classes of imported silk.	Market prices in July of the following years per pieul (133½ lb.)				
	1928.	1929.	1930.	1931.	1932.
	Tls.	Tls.	Tls.	Tls.	Tls.
1. Dupplon white flature of different chop marks	400	410	450 to 480	..	Current prices.
2. Kahing white (Swan No. 4, 5)	500 to 600	550 to 620	600 to 640	300 to 400	300 to 400
3. Tsatlee	600 to 700	650 to 750	700	350 to 400	380 to 410
4. Minchow flature (yellow)	670 to 800	750 to 800	640 to 700	360 to 400	390 to 410
5. Kubin (coarse) (yellow)	380	380	370	250 to 260	278
6. Pawmein Yellow— (Fine)	400	425	460	350	330
(Coarse)	400	380	420	260	290
7. Hoyoung Yellow No. 1	460	475	475	360	370
8. Canton steam flature silk	..	..	620 to 650	470	..
Exchange rate in each year more or less.	Rs. 180	Rs. 160	Rs. 110	Rs. 110	Rs. 112

N.B.—But the exchange at Canton was different from that of Shanghai as follows during each year :—

	1929.	1930.	1931.	1932.
No trade with Canton silk	Rs. 90	Rs. 87	Rs. 90	..

Landing, railway freight are generally the same but rates and insurance and commission will increase or decrease on the value of the silk. It should be taken that on an average the landing charges in Tuticorin Port will be Rs. 5 per bale. Railway charges from Tuticorin to Kumbakonam will be Rs. 5. Duty levied on white silk will be Re. 1-1 per lb. and yellow silk will be Re. 1 per lb.

In addition to cost of silk, there are other current charges which the Shanghai exporter charges which comes to 27 taels including matting, godown, fire insurance, war risk, marine insurance, freight as per bill of lading, telegrams and commission at $1\frac{1}{2}$ per cent.

Please refer to the enclosed* copy of the invoice.

3. The first quality Kollegal silk of 8/10 cocoons compete with Pawmein yellow fine quality of Shanghai which is equivalent in quality. While, the first quality Kollegal silk is being sold at Rs. 5-13 per lb. (at Rs. 140 per maund), Pawmein silk can be had at Rs. 4-4 per lb. (at Rs. 7-8 per seer of 72 tolas).

Medium quality Kollegal silk which costs Rs. 120 per maund competes with Minchow coarse which costs Rs. 3-9 a lb. (at Rs. 6-8 per seer of 72 tolas) Kollegal silk is sold at Rs. 5 per lb.

4. Yes, there is difference between the prices realised, while in the case of first quality Kollegal silk the difference is Re. 1-9 per lb. and in the case of medium quality the difference is Re. 1-7 per lb. The reason for this difference in prices may be said due to the variety of silk-worms reared in China which gives more silk that is, 7 lbs. of cocoons will give 1 lb. of silk and 6 to 7 crops are raised on large scale also less cost of labour, mulberry being cultivated as tree which gives more yield of mulberry leaves with a lesser cost of cultivation, more co-operation in sericulture and trade. With all these China is able to produce at a cheaper cost also sell at a cheaper cost. Government of China give great encouragement for the cocoon producers, reelers and merchants and at the time depression they give bounty to merchants to save them from losses. The price of silver in China is in its lowest level compared to India. This is one of the most important reasons why China is able to sell cheap.

5. Railway freight from Tuticorin port to Kumbakonam one picul (bale) of silk will come to Rs. 5-8 while from Kollegal out agency to Kumbakonam comes to Rs. 8-4 (per picul).

6. I have good reasons to suppose that Chinese producers must be producing silk at a low cost on account of cheap labour available in China extensive growth of tree mulberry, high silk yielding species of worms which produces more silk and less waste but it cannot be said that prices are unremunerative for foreign producers.

7. Kollegal silk is almost equal to Canton steam flature silk in appearance though not as superior as that in size and continuity. Kollegal silk is the best in its shining. So it commands a higher price also takes any fast colour quickly.

8. Conditions of manufacture of silk in India is quite different from that of China. In China the industry is well organised and is carried on with mutual co-operation and at times of loss Chinese Government come to help the silk producers by way of giving bounties whereas in India the industry requires great organisation and encouragement.

9. The Indian manufacturer is only a poor cottage reeler who has a crude type of reeling machine and labour is high also the cost of cocoons. In the Indian climate Mysore variety of worms can be reared about seven times in a year out of which the rearer loses two crops but in Canton also they take 5 crops each crop being very big also crops yielding twice the yield than the Kollegal variety. China does not spend much on mulberry cultivation as it is from trees that they pick mulberry. China being well

* Not printed.

populated, having no religious sentiment, more labour and cheap labour could be had who are skilled in rearing and reeling.

10. It is very difficult to estimate the trend of silk prices for the next few years.

11. Yes, the statement that the present method of fixing tariff values results in a material under estimating the real value of silk imports is correct. I send herewith a true copy of the invoice containing the different kinds of superior and inferior silks on which the value is taken at Rs. 4-1 per lb. while calculating the duty.

12. Deniers 20-22, 28-32 (Canton steam filature).

Minchow 14-16. (We are not familiar with silk goods as we are only raw silk merchants and importers.)

13. Competition of imported silk with Indian silk might be prevailing due to Chinese special assistance in the matter of credit also by the Chinese Chamber of Commerce and Government. But Indian buyers do not get any financial assistance from Chinese producers.

14. Chinese silk producers have made the quality of silk suitable for all requirements of the Indian weaver by grading them and fixing a standard of the size of skein, size also by the method of re-reeling the country reeled silk so as to make it cleaner and more easily be ready for the loom than our silk. On the whole China is competing in all possible ways.

15. China of late (in recent years) has been producing silks of superior quality which change is well marked by the Indian weavers.

16. Silk merchants who import silks sell them to the weavers both directly and through small merchants who add a small profit and sell in retail to weavers in the surroundings of important weaving centres.

17. Yes, Indian consumers prefer to buy cheaper qualities of silk goods and this preference is no doubt disadvantageous to Indian silk.

18. I have no idea about this matter.

Dr. H. Jai Ram, Indian Institute of Science, Hebbal, Bangalore.

Letter dated the 8th February, 1933.

In reply to your D.O. No. 65, dated the 24th January, 1933, I have the pleasure to enclose herewith five copies of a memorandum on the artificial silk industry in relation to the present enquiry of the Board.

Enclosure.

THE PRESENT POSITION OF THE SILK INDUSTRY IN INDIA.

The sericultural industry in India has been enjoying a special privilege denied to other infant industries in as much as it possesses favourable conditions of climate, inherited skilled labour and excellent traditions. Still it is on the threshold of an impending disaster. This is to a great extent due to want of proper organisation and scientific technique to foster the industry. Unless ways and means, based on careful technical research are found this industry cannot withstand for a long time the severe foreign competition especially that from Japan.

One would be astonished to find the vast amount of scientific work that is being carried out at present both in China and Japan. Unfortunately, no such attempt has been made or even considered in any of the sericultural areas in India.

It is, however, gratifying to note that the Government of Mysore have been evincing a very keen interest in the sericultural industry. They have also done much, thanks to the department of industries, to popularise sericulture

as a cottage industry. It is however to be regretted that the technical side has not been given as much attention as it deserves. Mysore which claims to produce half the quantity of the silk produced in this country has not got even a single research station or technological laboratory.

On the other hand, Japan has got several technical research laboratories, on up-to-date lines, and is making every effort to utilise silk waste in the form of silk fibron and new and cheaper methods of feeding silk worms on non-mulberry foods.

When other nations are forging ahead on a competitive basis it is hardly necessary to emphasise the importance of modern scientific methods of production both as regards quality and quantity.

While both the sericultural magnates and the Government of Japan are actively supporting the sericultural industry by spending large sums of money in incorporating latest scientific discoveries, which often appear as patents, we in India are guided mostly by the "thumb rule" and depend largely on nature.

The depreciation of the Yen no doubt accounts to some extent the bad set back the Indian sericultural industry is having. It however does not account for all. One could observe (from the table) that from 1926 to 1930, there has been a gradual increase in the imported raw silk from 1.7 million lbs. to 2.2 million lbs. Thus Indian sericultural industry was gradually giving way to the foreign silk.

It is needless to say that the Indian sericultural industry is in dire need of some protection at present. The only immediate measure of relief seems to be the raising of the Tariff wall. While the Tariff Board would be justified to give sufficient protection to the industry it is also to be recorded that if it should thrive, serious attempts must be made from within to withstand the severe foreign competition.

The Case for Artificial Silk.

The artificial silk or Rayon has also contributed its share to this bad state of affairs. Although it cannot replace natural silk for some class of goods, it has made such progress in textile industry that it has come to stay as a new textile material supplementing though not substituting silk where cheapness and fineness count. There is an increasing demand in the World for cheaper and finer articles of wear and new uses of Rayon in weaving, hosiery, knitted goods, lace, braiding, embroidery works and as warps and wefts in cotton mixed goods have found their way.

Since the introduction of Rayon as a new textile material the artificial silk industry has been making very rapid progress. The accompanying table gives an idea of the progress of Rayon as compared to raw silk production in the World for ten years.

World production in Million of Pounds.

—	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.
Raw silk	58.5	59.8	59.0	56.3	61.0	46.5	64.5	64.5	69.8	88.0
Rayon	31.2	33.0	34.6	36.4	41.2	47.8	80.9	108.8	140.0	172.0

During 1916 the World production of artificial silk was half the quantity of raw silk but at the end of ten years in 1925 it was nearly double the quantity of raw silk and has made remarkable progress during the years 1923-1925.

After 1925 the Rayon industry has made tremendous progress. During 1931 the production of Rayon throughout the World increased in a marked manner. Consumption also increased throughout to a sufficient extent to make any improvement in the general economic situation. Several new factories have been contemplated in Japan which is looking forward for a wider market in India. Rayon manufacture in Japan is one of the few industries that has continued to prosper despite the World depression.

One of the very largest cotton enterprises in Japan now proposes to erect a Rayon factory with an annual output capacity of 1,500 tons. The firm although very prosperous in cotton trade believes that a brighter future lies before this newer industry.

Another factor that has contributed to the growth of the Rayon industry is that as a textile fibre it is not subject to the mercy of nature; it is produced under human control and therefore no wide or sudden fluctuations in supply or price are possible. As menad increases manufacturers find it profitable to increase their output.

The share of silk and artificial silk merchandise imported into India since 1926-1932, is shown on the accompanying table and the colossal increase during the year 1932 deserves special attention. There is an increase of 1.16 million lbs. of raw silk, 8.8 million yards of silk piecegoods, 5.2 million lbs. of artificial silk yarn and 64.6 million yards of cotton and artificial silk mixed piecegoods over the previous year. In each of the items the prices of the articles have considerably fallen. This helps to a great extent the Indian consumer whose purchasing power has been considerably lowered to go in for Rayon instead of the costly natural silk.

The modern method of manufacturing Rayon by the Viscose process where cheap wood cellulose or cotton linters are used. More than 80 per cent. of the World's output of Rayon is now manufactured by this process. This method is by far the most economical and Japan is adopting this method very extensively. The special advantage of this method is that the raw materials required besides being cheap are of world wide distribution thus eliminating expensive and troublesome recovery processes.

In view of these considerations it seems very necessary that a Sericultural Committee on the lines of the Indian Central Cotton Committee should be formed to keep in touch with the latest developments in the world sericultural industry, the world production and consumption, and fluctuation in prices. A technological laboratory must also be an indispensable component of it.

Statistics for imports of raw silk, silk piecegoods, artificial silk yarn and piecegoods of cotton and artificial silk, from 1925-26 to 1931-32.

Year.	SILK.				ARTIFICIAL SILK.			
	RAW SILK.		PIECEGOODS.		YARN.		PIECEGOODS OF COTTON AND SILK.	
	Quantity in million lbs.	Value in lakhs of Rs.	Quantity in million yards.	Value in lakhs of Rs.	Quantity in million lbs.	Value in lakhs of Rs.	Quantity in million yards.	Value in lakhs of Rs.
1925-26 . .	1.32	94	16	212	2.7	74.7	15	..
1926-27 . .	1.78	114	19	243	5.77	102.0	42	309
1927-28 . .	2.35	145	21.3	258	7.51	149.2	53.1	386.5
1928-29 . .	2.10	124	21.9	244	7.7	135	49.8	330
1929-30 . .	2.2	123	29.9	223	7.4	99	56.6	315
1930-31 . .	1.94	88	16.7	127	7.1	81	51.5	212
1931-32 . .	3.10	119.9	25.5	240	12.3	110.6	116.1	291.6

In 1927, both the Bombay and Ahmedabad Millowners' Associations, called for a prohibitive duty on Japanese Rayon goods and also for the abolition of the duty on raw cotton, on the grounds that the increased production of finer counts of yarn had necessitated the use of African, Egyptian and American cottons of a type not grown in India. There is ample justification for it.

The artificial silk industry stands at a decided advantage over the cotton trade on a comparable basis of deniers and counts. The manufacture of fine denier artificial silk is a matter of slight modification in the technique of production, while the higher count cotton yarn requires a change in the raw cotton. And with the further advantage of an import duty on raw cotton, the Rayon industry is sure to have the better of the finer counts in cotton trade.

As mentioned previously, the Japanese cotton magnates changed over to Rayon, because they knew that it would score better over the higher counts cotton yarn produced in India. Similar to the case of the silk industry, a higher Tariff wall on artificial silk imports will certainly give some measure of relief to the cotton industry but it is only a preventive not a curative method. The only course left open is to start Rayon industries in India, where facilities are not wanting either in raw materials, labour or cheap power. The Rayon industry demands high technical skill and experience for success but that is no reason why it should not be started in India. Even America imported technicians in the earlier days of the industry.

America took to Rayon in 1910, Italy in 1913, but Japan only in 1918. Small countries like Poland and Chechoslovakia started their Rayon manufacture as late as 1922 and are now producing enough yarn to meet their home markets.

Every year from six to seven millions of cotton-waste are produced in the Indian spinning mills which are now used to most uneconomical purposes. In addition to these we have another rich source of raw material in cotton linters which are left over during the process of ginning. These could be removed by special delinting machines during the manufacture of cotton seed oil. Linters cannot be spun and are the usual raw materials for cotton wool and paper. They could be more profitably employed for Rayon manufacture.

Japan like every other country started the Rayon industry to meet her own home market demands. In 1918 only 0.1 million lbs. were produced while by 1925 she was producing 2.5 million lbs. of Rayon. But in 1932, it was expected that Japan would produce 55 million lbs. of Rayon to supply the increasing demand in India and other countries. Rayon industry requires large capital, special technical skill and skilled labour and would take some time before India could come to the level of other manufacturing countries.

Every country has built its own Rayon manufacture behind high Tariff walls and to cite the case of a large Rayon producing country like America which passed an Act in 1913, and imposed a flat rate of 35 per cent. *ad valorem* on all Rayon yarns. The Tariff Act of 1932 applied specific rates on single and ply yarns of 45 and 50 cents. per pound respectively and provided, that in no case, shall a rate equal to less than 45 per cent. *ad valorem* apply. The *ad valorem* minimum rate was so high that the specific rates had not been applied except where a recession of prices had occurred.

In spite of the heavy import duties in England, shipments of various lines from the Far East had increased during the ten months ending 31st October 1932. The value of the imports increased from £32,865 to £50,577. An early revision of the tariffs and taxes on silk and Rayon was expected.

In conclusion, if sufficient initiative for the badly needed Rayon industry in this country has to be given, it is absolutely necessary to impose a prohibitive duty on it at least for a period of ten years so that this industry in India shall have sufficient time to gain enough experience and be able to withstand the foreign competition.

Mr. B. Aswathanarayana Setty, Silk Merchant, Channapatna.

(1) *Answers to Questionnaire dated the 4th February, 1933.*

1. I can say that sericulture is in existence for over one hundred years and this industry is a subsidiary occupation to the agriculturist in our State. This

industry is carried on in four districts of our State out of eight districts. I am raw silk dealer and for 2-3 generations we were doing the same business:—

2. The Industry is organised as classified below:—

(1) Mulberry growing and silk-worm rearing.

(2) Silk Reeling.

(3) Silk Business.

Silk merchants used to advance reelers for cocoon purchases whenever required. Thus the reeler after getting money, will advance to rearer if necessary. The industry is organised in the above manner with regard to management, finance and marketing. Now I buy silk for credit and sell it also for credit after charging 1 anna commission for each seer (one seer is equal to 28½ tolas).

3. The silk-worm rearers are much dejected since they do not get a reasonable price for their labour—so also the reelers and silk merchants who do not get good demand for silk. I shall give figures for the past five years of raw silk business I did. It has come to my knowledge, that sericulturists do not find the Industry profitable and that they are gradually giving up.

4. I do not know that any filature in India, having been closed the same for want of an adequate supply of reeling cocoons.

19. The rearer generally never keeps his cocoons for reeling. He generally sells the cocoons to the reeler irrespective of state of market. If his cocoons are not sold for cash, he will sell on credit. Some years back, the rearer used to get advances for his cocoons from reelers, but now he has to sell his cocoons for credit mostly.

20. The raw silk reeled in our parts are all from hand driven charkas. I do not know much of silk reeling.

37. Raw silk is used for the manufacture of fabrics, lace and lamatta, etc.

29. I do silk business at Channapatna and my clients from Kanchi, Seelum, Madura, Satwachari and other places will buy the raw silk from my "Khoti". The raw silk sold in my "Khoti" is mostly for use in other part of Madras Presidency. I give below the silk business I did during the past five years in my "Khoti":—

Year.	Raw Silk in maunds sold.	Transactions amounted to.
		Rs.
<i>Raw Silk—</i>		
1927-28	865	1,99,529
1928-29	745	1,50,366
1929-30	638	1,25,780
1930-31	463	65,630
1931-32	170	26,370
<i>Silk Waste—</i>		
1927-28	2,650	38,170
1928-29	2,626	39,763
1929-30	2,794	40,700
1930-31	1,127	7,600
1932-33	940	5,400

Particulars of the marketing methods.—Generally my clients are the residents of Kanchi, Trichinopally, Salum, Kumbakonam, Coimbatore, etc. Very often they come in person to buy raw silk and sometimes when they cannot come in person they will send their order for silk through a communication, giving particulars with reference to (1) quality of silk required, (2) quantity of raw silk required and (3) at the rates at which they want. I will sell the

silk to them on a commission of one anna for each seer of silk sold (one seer is equal to 28½ tolas). The moffussil orders are complied with by sending the silk by railway parcel. I pack silk in bales of 110 seers or 55 seers and the packing charges for a bale of 110 seers will be 10 annas and for the bale of 55 seers 6 annas. After weighment of silk that I have to despatch the raw silk that I have to despatch, the raw silk is packed in white cloth and stitched and then again packed with gunney and then despatch the bale on railway insurance. The railway insurance charges will be Rs. 2 either to a bale of 110 seers or 55 seers. The railway insurance charges will depend upon the distance to which raw silk is sent.

42. There are three methods of sorting and grading raw silk :—

1st method.—Raw silk to suit for single twist.

2nd method.—Raw silk to suit for double twist.

3rd method.—“ Chapras ” or raw silk that is quite different from the above 2 grades.

Raw silk is also sorted and graded according to the place where the same is reeled. I have no scientific method of sorting and grading silk in my “ Khoti ”. The present methods can be improved by having a conditioning house.

51. As foreign silk come in abundance and sold at cheaper rates in Bangalore City, there is no demand for our silk. This has resulted loss to the mulberry grower, silk-worm rearer and reelers as well.

53. The decline of our industry is so sudden that the causes appear to be permanent. If immediate steps are not taken in reviving the industry, there will be no traces left by the industry.

55. I am of opinion that the Revenue duty now, imposed on foreign silk is noway beneficial for the protection of the industry unless protection is given, this declining industry will not be saved.

56. (a) We have natural advantages such as an adequate supply of raw materials, cheap power, enough labour and an established market.

(b) Yes. There seems to be no scope for development if protection is not afforded.

(c) Yes. If protection is given we can eventually face world competition.

57. (a) Protection is necessary to that extent as it would make foreign silk-sale at the rates at which we can sell our silks with profit to the rearer and the reeler.

(b) Protective duty.

(c) As the people engaged in the industry are not literates it takes time for the ryot to take to new improved methods. At least 15 to 20 years time is required for the ryot to take to new methods. Protection is necessary for at least 15 to 20 years.

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58. The protective duty will effect on the handloom industry. The number will be reduced. The workmen employed for weaving are all labourers and the workmen will take up to cotton weaving in the silk weaving handlooms that are not working and earn their living. The price of the silk fabrics, might go up a little but as silk fabrics are generally worn by richer class, the slight raise in price will not effect them. No other industry will be affected by levying protective duty on foreign silk.

60. If protective duty is given for the period claimed for it is possible to reduce the cost of production on raw silk. We can at least hope to reduce the cost by a rupee per lb. we can reduce the cost by growing mulberry topes by growing new varieties of mulberry, rearing disease-free layings, particularly cross-breeds.

(2) Letter No. 3351, dated the 11th February, 1933, from the Officer-in-Charge, Government Silk Farm, Channapatna, to the Secretary, Tariff Board.

I am sending herewith the replies of Messrs. B. Aswathanarayana Setty, Silk and Silk-Waste Merchant, Channapatna, to the questionnaire issued for Importers and Traders with regard to the raw silk industry in Mysore.

Enclosure.

ANSWERS TO QUESTIONNAIRE BY THE INDIAN TARIFF BOARD FOR IMPORTERS AND TRADERS WITH REGARD TO RAW SILK INDUSTRY IN MYSORE.

1. The foreign countries from which competition is keenest are South China, Central China, and Japan. The markets where the competition is keen are at the following places :—Gadag, Hoobli, Belgam, Bagalkote, Surat, Salem, Kanchi, Hyderabad State, etc. The superior grades of our silk produced at Kempanahalli, Sidlaghatta, and Chikkaballapur have been ousted by the Canton steam flature silk. The coarser grades of our silk produced at Channapatna, Vittalapur, etc., have been ousted by Mincheoo silks.

2. We have no information to furnish with regard to the prices at which the imported principle classes of silks enter India.

3. Mysore silks were sold at the following rates per seer of 28½ tolas during the past five years :—

- (1) 1927-28 Rs. 5-8 to Rs. 6-4.
- (2) 1928-29 Rs. 4-12 to Rs. 5-4.
- (3) 1929-30 Rs. 4-8 to Rs. 5-0.
- (4) 1930-31 Rs. 3-2 to Rs. 3-8.
- (5) 1931-32 Rs. 3-4 to Rs. 4-4.

4. Canton silk 20/22 Denier is sold at Rs. 4-4 per lb. in Bangalore, whereas Kempanahalli and Sidlaghatta silks with which Canton silk competes are sold at Rs. 6 per lb. Kempanahalli and Sidlaghatta silks cannot be sold cheaper than Rs. 6 per lb. and if sold even at this rate the reeler suffers but the quantity sold is small and for special requirements.

5. The Railway freight from Bombay to Gadag, Hoobli, Belgam, and the railway freight from Tuticorin to Salem, Kanchi, is almost about the same as the railway freight from Channapatna.

6. We suppose that the prices at which foreign silk produces sell silk for export in India are unremunerative that is they are sold below the cost of production. The price of Canton flature silk is at Rs. 4-11 per lb. at Bangalore. We get this to Bangalore from Bombay brokers. The freight, postage, handling charges, and brokerage is 2 annas per lb. Deducting this and our sale charges the actual sale price at Bombay is Rs. 4-9 per lb. Deducting duty 25 per cent. the value of silk comes to Rs. 3-7 per lb. We do not know the shipping charges from Hongkong to Bombay, handling charges at Bombay, freight from Hongkong to Bombay, transshipment charges at Canton, handling and mercantile charges at Canton, and incidental charges. It is quite reasonable to assure that the above charges may come to about 6 annas per lb. Thus, the Canton merchant will be in position to clear the goods at Rs. 3-1- per lb. Further, deducting manufacturing charges of 25 per cent. the raw materials, i.e., cocoons produced for 1 lb. of silk will be to Rs. 2-4. Generally, in South China about 15 lbs. of cocoons are required to produce 1 lb. of silk which will work out the cost of cocoons at Rs. 2-5 per lb. This is impracticable and tends to believe that the industry in South China is heavily subsidised by Government.

7. The China silk cannot compare with our silk in point of elasticity, tenacity, and lustre. Canton silks that are received at Bangalore resemble Mysore silk. The China silk is easily re-reeled and twisted. The loss in boiling off is less. As the natural qualities disappear at the bleaching it does take an important part in the sale price of raw silks.

8. We do not know the material differences of conditions of manufacture in India with that of the competing countries.

9. Our manufacturers are not at a disadvantage.

10. It is not possible to estimate the trend of the price of raw silk during the next few years under the present unsettled conditions.

11. We do not directly import foreign silks and we cannot give a definite answer.

12. The deniers of (1) Canton filature, 20/22, 28/32 and 32/36, (2) Duppon, 40/60, (3) Tsatlee, 20/24.

The imported goods which compete directly are coatings, shirtings, crapes, etc.

13. We understand that Government in foreign countries have been assisting for the export silk. The importers are given three months time for payment. This kind of assistance is enough for a competition with our silk.

14. We have a firm belief that the competition of imported silk is due to its cheapness and it cannot be to any other reason.

15. There has been a marked change in recent years in the quality. The colour is not the same as before. There is a great variation in the size of silk mentioned as per invoice. There will be a number of major defects such as waste, knibs, etc., i.e., the silk will not be clean. All these will have a direct effect in weaving.

16. The importers sell to brokers at Bangalore who sell the weavers.

17. It is but natural that consumers prefer cheaper goods, and cheapness makes the quality bad. The production of foreign silks in our Indian looms is inferior.

18. Dharmavaram and Aralepet sarees are ousted by foreign crapes and georgettes, conjeevaram, and other cheap sarees made out of cheap foreign silks.

Messrs. K. Aswatnaraniah and H. Syed Husain Saheb of Sidlaghatta.

Letter No. 3410, dated the 15th February, 1933, from the Superintendent of Sericulture in Mysore, to the Secretary, Tariff Board.

I have the honour to forward herewith the original Kannada replies along with six copies of translations furnished by Messrs. K. Aswatnaraniah and H. Syed Hussain Saheb of Sidlaghatta, to the questionnaire to be answered by Importers and Traders.

Enclosure No. 1.

REPLY BY MR. ASWATNARANIAH, SON OF MR. DONTU NARANAPPA, SILK MERCHANT, SIDLAGHATTA, KOLAR DISTRICT, TO QUESTIONNAIRE FOR IMPORTERS AND TRADERS ISSUED BY THE TARIFF BOARD.

1. China and Japan are competing with India regarding silk trade. The Chinese and Japanese silks come in large quantities to Bagalkote, Belgaum and Hubli. I do not know which class of China silk is coming into India.

2. I am not aware of the prices of the China silk for each of the past five years. Now the China silk is being sold at Rs. 8 to Rs. 8-4 for 72 tolas. The denier of the China silk which is imported is not known to me.

3. The price of the country charka silk is from Rs. 3-12 to Rs. 3-14 for 26½ tolas and the prices of silks from the surrounding villages are from Rs. 3-4 to Rs. 3-8 per seer of 26½ tolas.

4. The coarse China silk is being sold at Rs. 4-8 per pound. The price of silk of Sidlaghatta village is Rs. 5-10 per pound.

We have come to know that silks reeled out of inferior and double cocoons in China and Japan are being imported into India. But we select good cocoons and reel. So the cost of production of silk comes to 45 to 50 per cent. more.

5. We are not aware of the railway charges for the silks from the ports to the interior places. The railway freight and insurance charges come to Rs. 3-8 or Rs. 3-12 and Rs. 2 respectively on each bundle of silk sent weighing 116 seers to Gadag and Hubli.

6. I do not know.

7. Indian silk is superior to China silk in quality. Compared with Indian silk, China silk is inferior in lustre, lasting quality, twist—so the cloth manu-

factured out of it will not last long. That is why our silk is being sold at a higher rate than China silk.

8. I do not know.

9. No.

10. It may become still worse.

11. I do not know.

12. I do not know the silks of what deniers are imported. Coating, shirtings and turban cloths are being imported.

13. Yes.

14. This is not the only main reason. The reason is that the silk is being sold at cheap prices.

15. It appears that the silks reeled out of inferior cocoons are being imported into India.

16. Chinese and Japanese silks are not directly supplied to weavers. They are supplied through brokers. The brokers sell those silks in retail.

17. Yes. As the foreign silks are being sold at low rates, the purchasers go in only for them. So there is no demand for our silk. Hence the decline of the industry.

18. I do not know.

Enclosure No. 2.

REPLIES OF MR. H. SYED HUSSAIN SAHEB, SIDLAGHATTA, KOLAR DISTRICT, TO THE QUESTIONNAIRE FOR IMPORTERS AND TRADERS ISSUED BY THE TARIFF BOARD.

1. China and Japan are competing with India regarding in raw silk trade. Silk from those countries come in large quantities to Shahapur, Belgaum, Bagalkote, Hubli, Gadag and Bangalore. The China silks imported are of 20/22 and 28/32 deniers.

2. The rates at which the China silks were sold for each of the last five years are not known to me. Now the China silk of 28/32 denier is being sold at Rs. 8 for 72 tolas. The rest, I do not know.

3. (1) Country charka silk is being sold per seer of $26\frac{1}{2}$ tolas at Rs. 3-12.

(2) Silk reeled at Sidlaghatta, per lb., Rs. 5-10.

(3) 28/30 domestic basin silk, per lb., Rs. 7.

(4) 28/30 silk reeled in Italian basin, per lb., Rs. 7-4.

4. There is difference. The cost per lb. of 28/32 China silk is Rs. 4-7. The cost per lb. of 28/30 domestic basin silk is Rs. 7. We have come to know that silk reeled out of inferior and double cocoons are imported into India. But we select good cocoons and reel the silk so the cost of production per lb. will be 45-50 per cent. more.

5. We are not aware about the railway freight from parts to the interior towns. The insurance charges per bundle of silk weighing 114 sent from here to Gadag will come to Rs. 2; the railway freight will come to Rs. 3.

6. I do not know.

7. Indian silk is superior to China silk. The China Silk is inferior in tenacity, lustre and twist when compared with Indian silk. Our silk is being sold at a higher rate than China silk and it is not sold at a lesser rate.

8. I do not know.

9. No.

10. It may become still worse.

11. I do not know.

12. 28/30 denier—Coatings, shirtings and turban cloth.

13. Yes.

14. This is not the only main reason. The reason is that imported silks are being sold at cheaper rates.

15. We have come to know that only silks reeled from inferior and double cocoons are being imported into India.

16. The silk imported into India from China are not directly sent to weavers. It has to go to them through brokers who sell the silk in retail.

17. Yes. As the foreign silks are being sold at cheaper rates, the purchasers go in only for them. Consequently, there is no demand for our silk—hence the decline of the industry.

18. I do not know.

(2) *Replies to questionnaire issued by the Indian Tariff Board in regard to the Silk Industry in India received from Mr. D. Aswathanarayana Setty, Sidlaghatta, Kolar District, Mysore State.*

1. Sericulture is in vogue in Sidlaghatta and surrounding villages since a century. The various branches of the industry like silk-worm rearing, chawki rearing, silk reeling, and trade are practised as shown in the following statement:—

Year.	SILKWORM REARERS.		CHAWKI REARERS.	REELERS.		Reeling establishments.	Silk kotis.
	Families.	No. of people engaged in the industry.	No. of people.	Families.	No. of people.		
1927-28 . .	350	1,500	20	50	450	150	4
1931-32 . .	200	1,000	10	50	250	50	3

The industry was in a very flourishing state. Since three years there is a decline.

Mulberry cultivation and silk-worm rearing are subsidiary occupations of agriculturists. Reeling is practised as a main industry. Since three years the slack demand for silk has been acutely felt by the reelers. Charkas which were worked for 9 to 10 months in the year are now working only 3 to 4 months.

2. The reelers in Sidlaghatta and the surrounding villages bring silk reeled by them to the kotis. The kotis advance about 75 per cent. of the then market value of silk. If the kotis have confidence in the stability of the reelers advances up to 90 per cent. of the market value of silk are given. The market rates at Sidlaghatta are forwarded periodically to merchants in Bagalkote, Hubli, Belgaum Conjeevaram, etc., who place orders with us for the quantity they require if the rates are approved by them. When silk is sent against an order, credit is allowed for one month. The reelers pay a brokerage of two annas per seer ($26\frac{1}{2}$ tolas) to the kotis; they also receive one anna per seer from the purchasers. If cash payments are made for silk supplied brokerage which the purchaser has to pay is waived. The kotis invest private capital. The kotis also raise money in Banks and other sources, whenever necessary.

37. Raw silk is used in the manufacture of sarees, bodice cloth, coatings, shirtings, gold thread, lametta, etc.

39. Silk is not sold in the locality; it is sold in other parts of India. The quantity of silk sold in other parts of India:—

Year.	Quantity of silk in seers of $26\frac{1}{2}$ tolas.	Year.	Quantity of silk in seers of $26\frac{1}{2}$ tolas.
1928 . . .	30,000	1931 . . .	20,000
1929 . . .	25,000	1932 . . .	17,000
1930 . . .	23,000		

Marketing methods.—Current quotations of silk at Sidlaghatta are forwarded periodically to silk merchants at Bettagori, Gadag, Hubli, Conjeevaram, etc. These merchants study the demand and place orders with the kotis for the required silk which is duty purchased. A month's credit is allowed in all cases. The brokerage of one anna per seer paid by the purchaser is waived when the value of silk is paid in cash.

41. Silk is not sold in Sidlaghatta, but sold in other parts of India. The prices at which silk has been sold is furnished below :—

Year.	Per seer of 26½ tolas.		Year.	Per seer of 26½ tolas.	
	From	To		From	To
	Rs. A.	Rs. A.		Rs. A.	Rs. A.
1923	8 12	10 3	1928	5 8	6 12
1924	8 0	10 8	1929	5 12	6 6
1925	6 6	7 4	1930	4 0	6 0
1926	6 8	8 4	1931	3 12	5 0
1927	6 8	8 0	1932	4 0	4 6

The merchants to whom we sell, market the silk after throwing. We are not aware of the rates at which they sell.

42. Silk is graded roughly by the following :—Uniformity, feel, colour, lustre and flossiness. The methods in vogue can be improved by using testing appliances to determine the uniformity, elasticity, cohesion, etc., and silk graded according of the system followed in countries where testing and grading is done on scientific lines.

51. The large imports of foreign silk and silk piecegoods is mainly responsible for the decline of the industry.

52. The populace in India is showing a bias for articles of daily use manufactured in India. This factor ought to have helped the industry, since the price difference between the foreign and the indigenous silk is very high, the demand for the latter product is slack.

53. Since the fall in prices and the poor demand for silk is progressive these three years, we are made to believe that the causes of the present decline are of a permanent character.

55. The revenue duty is intended for revenue purposes only and does not affect the industry. What is required at the present juncture is protection.

56 (A). Natural advantages specified for rearing of silk-worms and mulberry cultivation are found in abundance. The people in these parts have acquired a lot of proficiency by being engaged in the industry since a century. Electricity can be had at very low rates for purposes like irrigation, and for running reeling and throwing plants. There is a very large home market for silk if the foreign imports are reduced.

(B) The industry is bound to decline and become extinct if adequate protection is not granted immediately.

(C) The industry will be in a position to face world competition if it is protected for a time.

57. (a) Cultivators of mulberry, silk-worm rearers and chawki rearers are not getting adequate returns under the existing conditions. Reelers are running the charka on a loss or a very narrow margin of profit. The protection given should be such that the prices of foreign silk should be on a level with those of the indigenous silk when it sells at rates remunerative to those engaged in the industry.

(b) Protective duty should be levied on foreign silk and silk piecegoods.

(c) Protection for a period of twenty years the popularisation of improved methods and methods calculated to reduce the cost of production among the illiterate people engaged in the industry demands this period.

58. Generally silk is used only by the rich. As the prices of silk are very low, a larger population has been using silk. The textile industry and the

handloom weaver can use the higher counts of cotton yarn, if the prices of silk are high. The handloom weaver particularly is not affected by the inflation as he is only a wage earner.

60. The maintenance of mulberry garden costs very high. This can be reduced by growing mulberry trees, which, I learn, costs less. Rearers can take to rearing of hybrid worms which yield about one and a half times the yield compared to the Mysore race and gives also a higher percentage of silk. By these methods, the cost of production of cocoons can be reduced. The reeler will then be in a position to sell silk at a lower rate.

By adopting the above methods, the cost of production per pound can be reduced by about Re. 1.

Mr. Haligegowda, Sericulturist, Hebbur Tumkur Taluk.

Replies to questionnaire forwarded on 24th January, 1933.

1. The silk industry has been in existence in this taluk since I was a boy and I learn from our elders that it had been in existence even long before. It is being pursued largely in Hebbur Hobli of this taluk which is known very well all over for its production of good seed cocoons. Five years ago there were 300 acres of mulberry and in the year 1929-30 the area under mulberry rose up to 350 acres, and now it is only 250 acres. About five hundred families have been engaged in this industry having it as a subsidiary occupation along with agriculture. Those pursuing it as a main occupation are very rare. Since this is a seed area, there is not much silk reeling here. Occasionally if, however, the cocoons produced by the ryots, are unfit for seed some of them get them reeled. There are not more than 10 families engaged in silk reeling pursuing it as a subsidiary occupation. There is none in this area who has taken up silk reeling as a main occupation. The reeling cocoons produced in this area are generally purchased by silk reeler of Kempanahalli in Kunigal Taluk, and Chikkahalli in Magadi Taluk.

2. The people who are engaged in Sericultural industry may be mainly divided into three classes:—

- (1) Mulberry growers and silk-worm rearers.
- (2) Silk reelers.
- (3) Silk brokers and merchants.

(1) The silk-worm rearer generally grows mulberry on his own land, has his rearings according to the supply of leaves in his garden and sells the cocoons produced by him for seed purposes to the sericulturists coming from the sericultural areas in the State. The cocoons unfit for seed purposes are sold to the silk-reelers. Small sums of money which he may require now and then for this work, he generally borrows from silk-reelers on local money lenders. The seed cocoons are generally sold for cash and the reeling cocoons on credit; the money being realised only after the reeler sells the silk produced out of it.

(2) The silk reelers own charkas. They purchase reeling cocoons from the silk-worm rearers on credit, and after reeling the cocoons, take the silk to the silk brokers and merchants for being sold; when they realise their money after the sale of the silk produced by them, they make payments to the cocoon producers for the cocoons purchased from them. This being a seed area there are not many reelers here. The silk reelers generally get advances from the silk brokers and merchants on the security of the silk presented for sale bearing an interest of about 12 per cent. per annum. Further they get cocoons on credit from silk-worm rearers.

(3) There are no silk merchants or silk brokers in this area. The silk produced here are generally taken to the silk Kotis at Bangalore and Kallur in Gubbi Taluk for being sold. The brokers generally sell the silk to the weavers and other silk merchants coming from the different parts of

the country. If the silk is not readily sold the brokers advance some money to the reelers on the security of the silk presented by them for sale. Such advances generally bear interest at 12 per cent. per annum. The brokers generally charge a commission of two annas per pound of silk sold to the reelers. The Kotis get their working capital from the recognised banks and rich money lenders. In Kallur in Gubbi Taluk the silk sold there will be used by the local weavers only.

3. The maximum production of raw silk and cocoons attainable in the present organisation is given below:—

Year.	Cocoons.	
	Maximum attainable output in lbs.	Actual output in lbs.
1927-28	100,000	90,000
1928-29	107,750	97,500
1929-30	115,500	105,000
1930-31	100,000	90,000
1931-32	84,500	75,000

Year.	Output in irrigated lands	
	in lbs.	Output in dry lands in lbs.
1927-28	22,500	67,500
1928-29	22,500	75,000
1929-30	22,500	82,500
1930-31	22,500	67,500
1931-32	22,500	52,500

Disposal as follows:—

Year.	Quantity of silk got	
	Sold for seed purpose in lbs.	Sold for reeling purposes in lbs.
1927-28	67,500	22,500
1928-29	63,125	24,375
1929-30	78,750	26,250
1930-31	67,500	22,500
1931-32	56,250	18,750

Occasional failure of rains, consequent failure of crops and also fall in the silk price which has produced a slack of interest in the industry on the part of the sericulturist are causes for the variation in the output. Since our sericulturists are uneducated no accurate information is available only probable figures are given.

4. The Mysore variety of silk worms are reared here. About 13 lbs. of cocoons are required to produce 1 lb. of raw silk. I do not know the details of the output of silk from foreign varieties. I am not aware of the fact of any filatures in India having been closed down for want of cocoons.

5. We rear only the Mysore race of silk-worms. Since this is a seed area, the local variety only is being reared and no others are introduced. After the eggs are laid, they are kept in trays in the rearing rooms, being duly protected from lizards and other enemies. In about ten or twelve days the eggs hatch of their own accord. The small antlike worms are transferred to a bamboo tray by means of feather. Fine tender mulberry leaves are finely chopped and fed to the worms about ten times in a day. In summer season, as leaves fed withered very soon the number of feeds given increased to 12 per day. In about five days they prepare going to first moult and remain in the moulting condition for about 24 to 30 hours.

When all the worms have come out of moult they are fed again as before. The size of the chopped leaves is increased according to the growth of the worm. As the worm grows older matured leaves are fed. No matured leaves are used for tender worms. In about 20 days they pass 4 moults at intervals of four to five days between each moult, and after the fourth moult in about ten days the worms ripen and begin to spin cocoons. The worms are separated from litter every now and then, i.e., twice in the first age and thrice in the 2nd, 3rd and 4th ages and once in a day after they come out of 4th moult. Adequate spacing according to the growth of the worms is given for the worms in the rearing trays. The spacing being increased as the worms grow bigger in size. Due care is taken to see the worms are protected from the attack of ants, lizards and other enemies. While they are transferred to spinning trays called chandrikeys where they remain for about three days. When the cocoons are fully spun they remove them from the chandrikeys and are sold for seed purposes, or for reeling purposes according to the demand.

6. (a) Our sericulturists have no separate rearing houses they generally rear the worms in one of the portions of their dwelling houses, where there is usually light and ventilation. In equipping a rearing house, the under mentioned appliances are necessary for rearing about 200 Mysore layings:—

	Rs. A.
Two stands at Rs. 8 per stand	16 0
Twenty trays at As. 8 per tray	10 0
Sixteen chandrikeys at Rs. 2-8 each	40 0
One chopping board	1 0
Two chopping knives at As. 8 each	1 0
Eight kundas for two stands at anna 1	0 8
Gunny cloth to cover leaves	1 0
One lantern	1 8
Baskets for plucking leaves and stand for stocking leaves	4 0
Other contingencies	5 0
Total	80 0

As mentioned above about Rs. 80 are required for the equipment. The stands last for about ten year, the trays for 3 years, the chandrikeys for 5 years and other articles for about two years. Minor articles such as baskets, etc., have got to be purchased and replaced every now and then. The equipment can be improved in many ways. The rearing stands have no wide interspaces thus causing inconvenience in removing and replacing the trays; the interspaces between each trays may be widened so that the trays can easily be removed and replaced. The rooms in which the worms are reared may be improved so that they may be properly ventilated and lighted. The trays used in some places are too large to be handled easily, their sizes can be reduced to some extent. The chandrikeys also could be improved by having the spirals a little closer to avoid wastage of silk while spinning.

(b)

Race of variety.	Number of days.	Number of cocoons per lb.	Length of filament.	Denier.
Mysore	30—35	About 550	...	...

7. I do not know about the method of rearing of silk-worms in other countries. I believe they also do it in the same way as ours.

The worms reared here are from local seed; we have seed campaign organisation from the Sericultural Department, by which some good seed rearers are selected and given some facilities for the production of seed cocoons. They are supplied with disease-free layings free of cost, and the houses are disinfected free of cost, and constant supervision is exercised by the Departmental staff, of their rearings. The Department also arranges to find a sale for seed cocoons produced by them. Such selected seed rearers have to abide by the rules laid down by the Department. The sericulturists also go about searching suitable crops for their seed purposes, and purchase such of the crops that are fit for their soil, and thus select seed cocoons themselves. There are also Government grainages preparing disease-free layings and supplying them to sericulturists. One ounce of seed costs Re. 1-0-9 now and it was Re. 1-6-6 some time ago.

9. Our worms are multivoltine; we raise about 5 crops a year. About 40,000 worms are produced from one ounce of seed. Since both seed cocoons and disease-free seed are reared in this area, no precise information can be furnished as to the exact quantity of eggs reared during the year.

10. The silk-worms are fed on mulberry leaves. Generally the mulberry is cultivated by the silk-worm rearer on his own land. There are some who grow mulberry on leased land. There is none here who grows mulberry and sells leaves. The cost of preparing one acre of land for mulberry cultivation is given below:—

	Rs.
1. For digging the land	50
2. For fencing the garden	25
3. Cost of 20 cart-loads of cattle manure including cart-hire	20
4. Irrigation expenses	5
5. Cost of cuttings, planting, etc.	25
Total	125

The annual recurring expenditure for maintaining the garden in good condition is as follows:—

	Rs. A.
1. 40 cart-loads of manure.—Cost at As. 12 per cart, transporting charges As. 4 per cart-loading, and spreading As. 2	45 0
2. Digging the garden:—Five diggings per year at Rs. 7-8 per digging	37 8
3. Irrigation:—15 waterings from small shallow wells, 3 times a month, for 5 moults at Rs. 2-8 for each watering	37 8
4. Repairs to fence	5 0
5. Land Revenue	2 0
6. Weeding five times after each digging	5 0
7. Sharpening charges of guddalis and repairs to bane, etc.	5 0
Total	137 0

In the cost of maintenance, since the charges for irrigation are more to keep the garden well irrigated during the year and more manure also is used. The cost of maintenance is more than the initial expenditure on the garden. Cattle manure, silk-worm litter, and tank silt are generally used. About 40 cart loads are used for one acre of mulberry. There are about 8,000 bushes in one acre. The raising of mulberry trees is not

practised here. About 900 lbs. of leaves could be harvested in one acre of mulberry and the cost of leaves per lb. would be 2-9 pies. The plantation of bush mulberry lives for 20 years on irrigated lands, and about 15 years on dry lands. About 1,000 lbs. of leaves are required to rear one ounce of seed, and it cost about Rs. 15-3-4. We do not use any other leaves as food for the silk-worms. If there are any I am not aware of them.

11. (i) There are no separate mulberry growers who sell leaves in these parts. About five years back it would cost us Rs. 177-8 to grow mulberry on one acre of irrigated land and Rs. 113-8 on dry land. Now it cost Rs. 137 on irrigated land and Rs. 85-8 on dry lands. Since our ryots are not sufficiently educated no accurate information is available on this point. The figures given are probable and based on existing conditions then and now. The cost of alternative crops are given below:—

(a) *Paddy cultivation in irrigated land.*

	Rs. A.
<i>Expenditure—</i>	
1. Land Revenue	6 0
2. Manure:—10 carts including cart-hire	10 0
3. Seed	2 0
4. Watering for 5 months	3 12
5. Weeding twice, Rs. 3 plus Re. 1-8	4 8
6. Harvesting	6 0
7. Transporting the paddy at As. 4	1 8
8. Transporting the hay, 4 carts	1 0
9. Preparing the hay in bundles	1 4
Total	36 0
<i>Receipts—</i>	
About 6 kandis of paddy at Rs. 9	54 0
4 carts of hay (100 bundles) at 25 bundles per cart, cost of hay at 10 bundles per rupee	10 0
Total	64 0

(b) *Sugarcane.*

<i>Expenditure—</i>	
1. Land Revenue	6 0
2. Manure :—30 carts, cost As. 12, transport, As. 4, lading and spreading, As. 2=Re. 1-2	33 12
3. Digging twice	24 0
4. Seeds (8,000) at Rs. 2 per 1,000 sets	16 0
	5 0
5. Planting	8 0
6. Irrigation	20 0
7. Milling charges	67 8
8. Miscellaneous charges	16 0
Total	196 4

Receipts—

10 adiges of jaggery for 100 canes, 80 adiges at Rs. 4 per adige	320 0
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(c) *Ragi cultivation in dry land.**Expenditure—*

	Rs. A.
1. Land Revenue	1 0
2. Ploughing	3 0
3. Manure	4 0
4. Seeds—Ragi, 2 Kolagas	0 8
5. Other seeds	0 4
6. Weeds	1 4
7. Harrowing	2 0
8. Harvesting	4 0
9. Transporting charges	2 0
Total	<u>18 0</u>

Receipts—

Two kandis of ragi at Rs. 8	16 0
Other seeds	1 8
Two carts of hay at Rs. 2-8	5 0
	<u>22 8</u>

12. The following methods are being adopted to improve the qualities of food and its cost of production under the guidance of the Department:—

- (1) Use of better manure.
- (2) Planting mulberry topes in place of bush.
- (3) Planting better varieties of mulberry, by which the output of mulberry could be increased.

13. Out of the worms brushed 25 per cent. of the worms on an average die before they form the cocoons on account of the following reasons:—

- (i) Worms being lost in handling while they are young.
- (ii) Worms lost in the moulting stages.
- (iii) Loss of worms due to Grasserie and Flacheries after 4th moult.
- (iv) Loss of worms due to eaten by lizards, etc., while young and loss of worms mounted on chandrikes due to birds, etc., eating them.

14. The silk-worms suffer from Pebrine, Flacherie and Grasserie. Pebrine is a highly contagious disease and comes from bad seed. If one crop suffers from this disease the subsequent crops will suffer from the same disease as the contagion spreads from one crop to the other crop. Flacherie is due to feeding of improper leaves and climatic variations. Pebrine could be controlled by use of disease-free eggs, and disinfection of rearing rooms. The other diseases could be checked by using proper qualities of leaves and keeping the rearing room in hygienic condition.

15. I do agree that climate is the one of the most important factor for the development of sericulture in a country. I am not aware of the exact condition of climate, i.e., the condition of temperature, and humidity for this industry. But I am sure the climatic conditions in our area are quite suitable for this industry as we have been harvesting successful crops.

16. About 50 lbs. of cocoons could be harvested from one ounce of seed. Since our ryots are uneducated no proper accounts have been maintained.

The probable cost of cultivating and conducting rearing in one acre of irrigated and dry land five years ago and now are given in the following statements:—

(A) (a) Irrigated lands:—

5 years ago.

	Rs.	A.	P.
1. Cost of seed, 8 oz. at Re. 1-6-6 per oz.	11	4	0
2. Labour employed for work, 20 coolies at As. 4 each for 5 crops	25	0	0
3. Cost of mulberry leaves	177	8	0
4. Appliances and chemicals	14	14	10
5. Other contingencies	4	0	0
Total	232	10	10

Now.

1. Cost of 8 oz. of eggs at Re. 1-0-9 per oz.	8	6	0
2. Labour at As. 3	18	12	0
3. Cost of mulberry leaves	137	0	0
4. Appliances	14	10	10
5. Other contingencies	4	0	0
Total	183	0	10

(b) Dry land, one acre:—

5 years ago.

1. Cost of 5½ oz. of eggs at Re. 1-6-6	7	11	9
2. Labour employed for work in four crops, 18 coolies at As. 4 each	18	0	0
3. Cost of mulberry leaves	113	8	0
4. Appliances	14	14	10
5. Other contingencies	3	4	0
Total	157	6	7

Now.

1. Cost of 5½ oz. of eggs at Re. 1-0-9	5	12	2
2. Labour employed for work in four crops, 18 coolies at As. 3 each	13	8	0
3. Cost of mulberry leaves	85	8	0
4. Appliances	14	14	10
5. Other contingencies	3	4	0
Total	122	15	0

(B) The cost of rearing one ounce of seed 5 years ago and now and mulberry grown on irrigated and dry land is given below:—

Irrigated land.

	5 years ago.	Now.
	Rs. A. P.	Rs. A. P.
1. Cost of layings	1 6 6	1 0 9
2. Labour	3 2 0	2 5 6
3. Cost of leaves	22 3 0	17 2 0
4. Appliances	1 13 10	1 13 10
5. Other contingent charges	0 8 0	0 8 0
Total	29 1 4	22 14 1

Dry land.

	5 years ago.	Now.
	Rs. A. P.	Rs. A. P.
1. Cost of layings	1 6 6	1 0 9
2. Labour	3 4 4	2 7 3
3. Mulberry leaves	20 12 2	15 8 9
4. Appliances	2 10 6	2 10 6
5. Other contingent charges	0 9 6	0 9 6
Total	26 9 0	22 3 9

About 450 lbs. of cocoons could be harvested with one acre of mulberry on irrigated land and 310 lbs. could be harvested on dry land in a year. About 9,000 lbs. of leaves could be harvested on irrigated land and 6,200 lbs. of leaves could be harvested on one acre of dry land in a year. About 20 lbs. leaves being required to produce 1 lb. of cocoon.

18. Since this is a seed area most of the cocoons produced here are sold for seed purposes. If any cocoons are unfit for seed or when there is no demand for seed cocoons they are sold for reeling purposes. The seed cocoons are generally purchased by sericulturists coming from Mysore, Kolar and Bangalore Districts and Kollegal in Madras Presidency. On an average about 75 per cent. of the cocoons produced here are sold for seed, about 25 per cent. are sold for reeling to the reelers of Kempanahalli, in Kunigal Taluk and Chikkahalli in Magadi Taluk. The seed cocoons are sold by thousands and reeling cocoons are sold by weight. About 5,500 cocoons would weigh 10 lbs. of raw cocoons if sold for seed purposes. It will cost at the rate of Re. 1 per 1,000 about Rs. 5-8, if they are sold for reeling it would cost about Rs. 3.

19. The silk-worm rearer does not reel cocoons himself since this is a seed area most of the cocoons go for seed purposes. Some stray lots being unfit for seed and others for want of demand are now and then sold for reeling to reelers of Kempanahalli and Chikkahalli. Since the rearers do not reel the cocoons themselves and cannot properly preserve them for a long time, they have got to sell them away for whatever price they may get for them. About five years ago one pound of silk was sold at Rs. 8 to Rs. 8-8 and

now it is being sold at Rs. 4 and Rs. 4-4. The average price of 1,000 seed cocoons for the last 5 years are as follows:—

	Rs. A.
1. 1928-29	2 4
2. 1929-30	2 4
3. 1930-31	1 11
4. 1931-32	1 0
5. 1932-33	1 0

The above figures are based on the rates paid by the Government farms in this area as no accurate information is available from rearers.

28. In 1926-27 there were about 800 families engaged in sericultural industry in this area now it has been reduced to 500.

51. As large quantities of silk is being imported from foreign countries and is being sold at very low prices there is practically no demand for our silk, consequently the industry has declined in all its aspects.

53. The present decline of the industry has been in existence for the last two or three years without any prospects of improvements and we are afraid that it may be a permanent one if the same state of affairs continue for some time longer. The industry will be stamped out of the country without any trace of its existence.

56. (a) Our industry has all the natural advantages such as large supply of raw materials, sufficient supply of labour, and a large home market also.

(b) If the present state of decline continues to exist for some time longer and no protection is given, the industry will certainly disappear from the country without any trace of its existence and consequently it will bring in a lot of hardship to the people engaged in the industry.

(c) If protection is given for about 15 years we would be able to face the world competition. Eventually it will prosper even without protection as our industry will have come to a standard of efficiency in the intervene period.

57. (a) We want that amount of protection as to make the level of prices of the foreign silks the same as ours if not more.

(b) The protection must be given in the form of protective duty on the imports of raw silk and silk goods coming from foreign countries.

58. I do not think it affects any other industry.

57. (c) Protection is necessary for at least for about 15 years as that amount of time is necessary to bring in standard of efficiency in the several branches of our industry to introduce (1) Improved methods of cultivation, (2) Rearing, and (3) Proper organisation and the people have got to be sufficiently educated in these matters, within 15 years we would be able to raise the standard of industry to a proper level as to face the world competition.

If the sericultural industry is protected for some time we would be able to reduce the cost of production by adopting improved methods of cultivation, by using suitable manures, introduction of tope plantation and new methods of cultivating mulberry, use of disease-free layings on large scale, and use of fertilizers in several other ways of reducing costs of production and increasing yield.

Messrs. Nagindas Foolchand Chinai, Bombay.

(1) *Letter dated the 18th February, 1933.*

Re PROTECTION TO SERICULTURE.

We beg to refer you to your letter of the 23rd ultimo, and as desired therein, we the undersigned, the leading Silk Merchants of Bombay are submitting you herewith our views fully on the subject.

We really fail to understand why the Government are going out of their way to give protection to Native States of India, particularly the Kashmir Government and the Mysore Government. The profits that are made by these Native States go to the pockets of their subjects and how does it in any way affect the subjects of the British Government living in the British Territories. We are absolutely of one opinion that your levying any duty will in any way decrease the import of Chinese raw silk into India unless and until the Government gives a helping hand to the industry itself from the beginning, viz., rearing of worms to the final state of marketing goods and supporting the Native Industries direct as are really done by the National Governments in other countries.

We find on enquiry that Government is not able to supply to the British subjects the disease-free eggs in abundance and we fail to understand how that will be overcome by levying of fresh duties. Your levying further duties on imported raw silk into India will directly be a burden on the poor handloom weavers who are living from hand to mouth and by imposing further duties you will very soon see the result that there will be a famine for silk. If Government are going to utilise extra duty that they are going to impose on the future advancement of sericulture, then alone there is some chance of producing India's entire requirements within 20-35 years and then the matter would be in a different light. Where is the necessity of imposing duty for the benefit of two Native States mentioned above?

Raw silk that is now produced by Bengal is infinitely small. We are constrained to say that Government has been wrongly advised in the matter and you should give this your careful consideration before any further action is taken.

We are even of opinion that your imposing unnecessary further heavy duty on raw silk will tend to increase the use of artificial silk and that will be again diverting your efforts in the wrong direction.

We trust, you will excuse this letter.

Enclosure.

REPLIES TO QUESTIONNAIRE.

Importers and Traders.

1. We do not think that there is any keen competition in this country from a foreign country. If at all there is any competition, it is only from China. The chief foreign supply to India is from China. China has produced raw silk since centuries. India also used to import from Continental and Asiatic Ports as well years back. Since 1904 China has been supplying the largest quantities. Records from 1851 which are only available show the import of raw silk from various Ports aggregating in quantity to 1,866,768 lbs. but since 1904 the import from China is over 80 per cent. as can be seen on reference to the Government records. In support of this, a statement is enclosed herewith marked "A".

2. Though raw silk is produced in India, the types and the qualities of raw silk imported into India are not similar. China produces over 20 different types, each type having different varieties, which exceeds over 60 varieties in all, though identical varieties are not produced in India and it is hence impossible to judge the grades and compare them with the different grades coming from China. Moreover, the price of buying and selling is not based on their qualities, but is guided absolutely on the different conditions of the market, conditions of exchange and the demand. China and Japan are producing to-day nearly 80 per cent. of the world's production and they, therefore, command all the markets. The best market for them is America. India buys only one-tenth of China's production and not more. The ruling prices of each type hence ought not to be compared with the ruling prices of raw silk produced in India. Raw silk should not be judged on the basis of the different qualities and types, but ought to be

based on an average of all the kinds imported, and it will be a very difficult thing to place before the Committee the average rate even of different kinds.

Import duty before 1914 was 5 per cent., and then it was raised to 15, 20 and 25 per cent.

3. Indian silk does not come to Bombay. It goes directly to the consumers (consuming centres) and so no precise information is available with us on the subject.

4. Regarding price and production, it is most essential to understand the qualities and the types produced at the three different centres. Bengal raw silk is of yellow colour and is of distinctive different types. Raw silk produced in Mysore is white and of greenish tint and that silk is entirely different in quality. The sericulturing is done by petty buyers and each district has different type and quality. The quality that is produced in Kashmir is white and yellow, but the whole production is commanded by the State. It will not be possible to get at the facts whether the Bengal and Mysore producers are able to make money on their produce or not. They are very petty farmers. Only a few are well-off. Conditions are so widely different that it is impossible to gauge whether this business is productive or not.

80 per cent. of the Shanghai raw silk that is imported into India known as native reel and which is very irregular in size and deniers is of long reel and is only produced by hand reel or charka. Small quantity of filatures and re-reeled silk is imported from Shanghai and is sold under regular deniers. The most important deniers are 14/16, 20/22 and 30/32 and even small quantities are imported in these filatures and re-reels without the deniers being specified. Shipments from Japan are better controlled and all shipments are very carefully examined and tested by Government before they are allowed to be shipped.

As the imported silk is of absolutely different qualities to the types produced in India, their rates cannot be compared. Each type sells on its own merits and the quantity of gum which the silk possesses and the most essential factor which the consumers look to is the reeling and evenness of deniers. For other reasons about the difference in price between Indian and foreign silk, a glance over the February Issue of the "Modern Review", page 195, on an article on "Silk Industry of Malda" by Rakhal Chandra Ray, B.Sc., will be of great interest to the Board.

5. Regarding railway freight, we do not think railway freight has any bearing on this. However, we are sending you herewith a list of railway charges showing the rates charged by the railway company per maund from Bombay to the different centres marked "B". Goods imported at Tuticorin is more or less consumed in the surrounding districts of South India. Goods imported into Bombay is distributed throughout India. Import of raw silk at Calcutta is very limited.

6. We do not think China and Japan who produce 80 per cent. of the world's requirements should be manufacturing this raw silk at a loss. The whole business of raw silk depends on the world market conditions of demand and supply and the crop of that year. If the demand is good, the prices run up to some extent. If America is not the buyer, during that time China has to sell at a lower rate, but there is nothing to show that they are selling below their cost. If they have to sell below their cost, they cannot continue for an indefinite period.

7. The Indian silk produced is, as stated above, of different grades and as such cannot really be compared with the imported silk from China and Japan by mere appearance, unless it is thoroughly tested in respect of gum, evenness, strength, reeling, etc. Even in China, silk produced in Canton is different to that produced in Shanghai. For instance, in the New York market in January the sales of Canton 20/22 were effected at Dollar 1.60 while Shanghai Tsalee fetched from Dollars 2 to 3.25 according to quality. To give you an idea, the lowest type of Chinese raw silk costs Rs. 2-12 and

the highest best grade of raw silk is available up to Rs. 5-8. The above rates are inclusive of duty.

8. The conditions of raising silk-worms and manufacturing raw silk are very favourable in China and Japan than the conditions prevailing in India. The Chinese and Japanese climate is very favourable for the growth of silk-worms. In India and particularly in Bengal, owing to deviations in the climatic conditions, intense heat and intense cold, do not produce the same results. This we judge from the conditions under which silk-worms are reared and the difficulty that is experienced in India.

9. Certainly the Indian manufacturers are at a disadvantage in every respect.

10. It is impossible for anyone to judge beforehand what the conditions will be in India and other markets, as everything depends on the economical conditions and the market demand and supply of the world and that of India. Since the introduction of artificial silk yarn into India, people have taken a fancy for cheaper articles both in raw silk and artificial silk. With the advance of education, people use larger quantities of silk piece-goods than they formerly used to.

11. The statement is not correct. The tariff values are calculated on the average market values of each month during each year (Financial) of different varieties of silk both low and high including re-reels and filatures and hence, the same is just and fair.

12. The deniers of imported silk are:—

- (1) Shanghai re-reels and filatures, which form 20 per cent. imports of silk from this port, are 14/16, 20/22 and 28/32, 30/35.
- (2) Shanghai native reels which form 80 per cent. of the total imports from this Port are never supplied in specific deniers and the approximate size in different qualities is 30 to 180 deniers.
- (3) Canton filatures are generally imported in 20/22, 28/32 and 32/36. Only to a limited extent 14/16 deniers are imported.

13. This business is carried on in China and Japan on net cash basis and so the question of facilities does not arise. It will be of interest to know that most of the exporters as well as importers are Indians.

14. Great attention is paid by the Chinese and Japanese suppliers to supply the demand of all the different markets of the world and they do it as there is a good deal of supervision on behalf of the Government. In Japan, the whole industry is being directed and controlled by Japanese Government and China is now adopting the same system since the last two years as is in vogue in Japan.

15. The European and American Silk Association from time to time informs the silk exporters and the silk guilds (producers) in China and Japan about the defects in their suppliers to enable them to improve their qualities according to the new tastes developed in those countries. The silk producers in China and Japan meet the consumers once in 2 years and study their requirements. All these factors have brought about a marked change in the quality of silk imported into India from China and Japan. The adoption of latest scientific method of cleaning, reeling and sorting has greatly improved the quality of the supply from China and Japan.

16. Some weavers buy direct from the importers and some buy from retail dealers according to their capacities.

17. Since India is the poorest country, it goes without saying that cheaper grade goods sell well and is more in demand, and all the consumers give preference for silk which can be had cheapest irrespective whether it is Indian, Chinese or Japanese produce.

18. We are not conversant with the Indian silk manufactured goods, as they are sold mostly on the spot by manufacturers.

“ A ”.—Imports of raw silk into British India.

(In thousands of Rupees.)

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Lbs.	Rs.		Lbs.	Rs.
1850-51	12,60	24,01	1891-92	27,01	1,26,40
1851-52	10,45	20,35	1892-93	22,92	1,01,60
1852-53	10,41	23,00	1893-94	29,47	1,36,01
1853-54	13,40	29,10	1894-95	24,94	1,03,65
1854-55	11,40	26,07	1895-96	30,30	1,23,29
1855-56	13,92	27,43	1896-97	32,87	83,54
1856-57	5,64	12,01	1897-98	20,49	66,97
1857-58	14,38	37,80	1898-99	22,50	79,76
1858-59	18,47	50,49	1899-1900	16,94	57,60
1859-60	11,49	30,75	1900-01	13,74	45,51
1860-61	14,78	40,48	1901-02	11,83	38,13
1861-62	...	41,40	1902-03	10,58	28,90
1862-63	16,01	39,23	1903-04	10,34	35,07
1863-64	14,05	38,55	1904-05	12,99	44,62
1864-65	12,76	32,93	1905-06	16,45	71,19
1865-66	14,51	51,12	1906-07	14,22	56,80
1866-67	14,91	42,38*	1907-08	20,50	98,15
1867-68	16,28	56,65	1908-09	21,68	1,01,89
1868-69	19,60	73,09	1909-10	23,30	97,69
1869-70	20,20	90,27	1910-11	21,22	85,23
1870-71	23,28	89,55	1911-12	22,39	1,05,97
1871-72	17,99	65,16	1912-13	35,79	1,72,77
1872-73	19,31	56,06	1913-14	25,64	1,25,89
1873-74	22,82	78,69	1914-15	23,03	1,13,35
1874-75	24,67	87,29	1915-16	22,40	1,07,93
1875-76	24,66	69,48	1916-17	19,65	1,09,90
1876-77	14,61	45,19	1917-18	18,32	1,16,15
1877-78	21,03	67,80	1918-19	14,26	1,02,66
1878-79	18,14	56,72	1919-20	23,43	1,77,19
1879-80	20,05	68,32	1920-21	19,34	1,63,22
1880-81	25,11	1,06,70	1921-22	16,08	1,32,17
1881-82	17,60	74,92	1922-23	18,28	1,57,88
1882-83	23,86	1,07,41	1923-24	13,65	1,19,07
1883-84	22,10	98,95	1924-25	14,14	1,19,00
1884-85	18,14	74,71	1925-26	13,25	94,34
1885-86	17,24	72,15	1926-27	17,83	1,13,71
1886-87	17,37	1,79,33	1927-28	23,56	1,45,32
1887-88	25,98	1,17,43	1928-29	21,31	1,23,57
1888-89	20,45	90,59	1929-30	21,75	1,23,13
1889-90	23,60	1,06,70	1930-31	19,40	88,40
1890-91	24,06	1,11,50	1931-32	15,63	62,27

* For 11 months.

N.B.—The value from year 1850 to 1868 being in Sterling, the equivalent Rupee value has been taken at Rs. 10 per £.

" B ".—List showing Railway Freight between Bombay and other centres by Passenger Train.

	Per maund of 80 lbs.		Per maund of 80 lbs.
	Rs. A.		Rs. A.
Amritsar . . .	9 12	Madras . . .	7 6
Bagalkot . . .	4 3	Madura . . .	9 0
Bangalore . . .	6 9	Multan . . .	11 1
Belgaum . . .	3 8	Nagpur . . .	5 1
Conjeeveram . . .	6 0	Paramkudi . . .	9 6
Calcutta . . .	10 8	Rayadrug . . .	5 11
Delhi . . .	7 13	Salem . . .	7 13
Hubli . . .	4 10	Secunderabad . . .	4 13
Kashi . . .	8 4	Sholapur . . .	3 3
Kumbakonam . . .	8 4		



सत्यमेव जयते

(1) IMPORTS OF SHANGHAI SILK.
 (2) Statements handed in by Messrs. Nagindas Footchand Chinai.

Kind Yellow.	1927-28.	Percent- age.	1928-29.	Percent- age.	1929-30.	Percent- age.	1930-31.	Percent- age.	1931-32.	Percent- age.	1932-33.	Percent- age.
	Lbs.		Lbs.		Lbs.		Lbs.		Lbs.		Lbs.	
Minchow	24,197	4½	41,617	7	45,884	8	27,661	7	38,641	12	38,311	12
Kubin	24,002	4½	31,739	5½	38,924	6½	18,940	4½	24,944	8	7,988	2½
Minyang and Lai Minyang	145,694	26½	189,657	23½	121,138	21	103,456	26	79,890	25	78,208	24½
Hoyung	61,275	11½	67,364	11½	51,965	9	36,778	9½	32,748	10½	22,421	7
Reres, Yellow	51,119	9½	75,825	12½	64,343	11	51,874	13	47,374	15	57,530	18
(Dupion yellow)	2,358	½	..	..	..	..	..	..	..	..	..	..
Kahing, white	16,463	3	16,585	2½	3,939	½	640	½	2,189	½	2,559	½
Kashii, white	27,728	5	24,457	4	16,513	2½	5,266	1½	3,060	1	10,725	3½
Twalee, white re-reels	36,739	6½	54,156	9	70,885	12½	9,699	2½	12,089	3½	35,425	11
Panchow, white re-reels	45,869	8½	33,692	5½	38,886	6½	17,051	4½	16,286	5	19,760	6
White Kubin and Minchow	21,843	4	10,027	1½	..	..	..	..	..	..	..	..
Dupion	88,330	16	100,631	17	125,219	21½	126,613	31½	62,087	19½	49,743	15½
TOTAL	54,617	100	595,200	100	577,696	100	397,978	100	319,398	100	322,670	100

(2) LIST OF SAMPLES SUBMITTED TO THE TARIFF BOARD.

Sample No.	Kinds.	F.o.r. present Shanghai price in Taels.	Bombay market value per seer 72½ tolas.	Bombay market value per lb.	Tariff Rate per lb.
1	Minchow Fil. Ex. . . .	480	Rs. A. 10 6	Rs. A. 5 8	Rs. 4
2	Minchow Fil. Oxd. . . .	375	8 8	4 8	
3	Kubin R. R.	425	9 8	5 1	
4	Minchow R. R.	380	8 8	4 8	
5	Minyang R.R.	380	8 8	4 8	
6	Inferior R. R.	200	5 0	2 3	
7	Minchow Native long reel .	260	6 8	3 8	
8	Kubin „ „ „ .	255	6 6	3 7	
9	Shantung „ „ „ .	255	6 0	3 3	
10	Tsingchow „ „ „ .	345	6 12	3 10	
11	Lai Minyang „ „ „ .	215	5 8	2 15	
12	Hoyung „ „ „ .	280	6 12	3 10	
13	Fanchow, white „ „ .	250	6 12	3 10	Rs. 4-4
14	Kakadia „ „ „ .	280	7 14	3 14	
15	Tsaltee „ short R. R. .	380	8 12	4 11	Rs. 2-12
16	Shanghai Duppon Fil. . .	285	6 8	3 8	
17	„ Duppon	210	4 8	2 6	Rs. 3-4
18	Canton Fil.	520	8 14	4 12	
19	„ Long R.R. Mahang or Saisee.	6 4	3 6	Ad valorem.
20	Japanese Duppon R.R. . .	Y370	6 8	3 8	
21	„	300	5 4	2 5	
22	Italian Duppon 200/250 .	2s. 8d.	4 0	2 2	

(3) IMPORTS OF JAPANESE RAW SILK INTO BRITISH INDIA.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Lbs.	£		Lbs.	£
1900-01 .	33,712	...	1916-17 .	47,690	17,651
1901-02 .	32,752	36,673	1917-18 .	54,419	25,443
1902-03 .	47	180	1918-19 .	109,505	52,503
1903-04 .	21,242	41,513			Rs.
1904-05 .	41,092	55,522	1919-20 .	175	2,390
1905-06 .	90,988	141,389	1920-21 .	73,771	6,16,610
1906-07 .	79,786	124,860	1921-22 .	1,071	17,681
1907-08 .	29,470	4,131	1922-23 .	4,273	73,097
1908-09 .	125,365	11,834	1923-24 .	38,856	6,83,597
1909-10 .	82,525	9,373	1924-25 .	74,628	6,09,277
1910-11 .	93,779	13,779	1925-26 .	14,874	1,25,358
1911-12 .	50,916	5,030	1926-27 .	19,650	1,28,259
1912-13 .	8,471	3,175	1927-28 .	62,664	3,24,205
1913-14 .	21,616	6,998	1928-29 .	126,171	7,12,687
1914-15 .	172,368	58,396	1929-30 .	37,613	1,59,623
1915-16 .	23,734	6,189	1930-31 .	17,009	64,711

Messrs. Hansraj Sons, Bombay.*Letter dated the 19th February, 1933.*

In reply to your letter No. 5, dated the 4th February, 1933, we have the honour to enclose herewith our replies to the questionnaire sent to us by you.

As the questionnaire was received by us very late, we could not send our replies to the questionnaire earlier and we regret that we are sending our replies rather late.

Enclosure.

Introductory.—By way of introduction, we may state that we do not own any filatures, but that we are the manufacturers of silk piecegoods. But unlike other silk factories, our factory is also equipped with a throwing plant, capable of dealing with all the silk that may be required in our weaving department. Further we are specialists in the manufacture of fine silk fabrics only. Such as crepe-de-chine, crepe-georgette, etc., which are being imported in large quantities in India from Japan.

We are therefore unable to give any information regarding the sericulture industry. But as we have been and are using only *Indian raw silk*, our experience and views on the value of Indian raw silk from the textile manufacturers point of view, may be of some use to the Board. We will also discuss, in the course of this statement, the competitive strength of Indian raw silk both in price and quality as compared with the Chinese and Japanese raw silks.

We shall therefore pass on to those questions on which we can give reliable information.

1. We are concerned with the silk weaving industry which is a very ancient industry in India. It is as old as the cotton weaving industry, and like the famous muslins of Dacca, India silk piecegoods used to find a profitable market in the West, in the days of the Roman Empire.

At present silk weaving is carried on partly on power looms and partly on handlooms in many parts of India: especially in Benares, Surat, Murshidabad, Ludhiana and Peddapuram. To our knowledge there were only three large silk mills in India; two in Bombay, and one in Calcutta. The two mills in Bombay have taken to the weaving of artificial silk fabrics, whereas the Bengal silk mills in Calcutta are still manufacturing real silk fabrics.

Our mills is not so large as the other three mills and we have begun work only in the course of the last year. But we are manufacturing real silk fabrics only.

We estimate that about three lakhs of people are directly and indirectly dependent upon the silk weaving industry in India. Out of this number a large percentage is dependent on the handlooms.

37. At present, raw silk has the following industrial uses in India:—

- (1) the foremost is of course, the making of all silk and part-silk piecegoods.
- (2) next in importance is the use of raw silk in the gold and silver thread industry.
- (3) it is used in the cotton mills in the making of borders for Dhoties and Sarees.
- (4) in the embroidery work also a small quantity is used.

It may be mentioned that many more uses for raw silk could be found among the following may be mentioned:—

- (a) In making ribbons and braids. The making of braids can be introduced as a cottage industry because braid making machines are simple to operate and inexpensive in cost.

- (b) In the winding of insulated electrical wires and in the making electrical transformers. This industry is non-existent in India.
- (c) In the making of velvets a good quantity of raw silk can be used so far the making of velvet has not been on a commercial scale in India.
- (d) The same is the case with the making of "Plush" and similar pile fabrics.

38. We estimate the present Indian demand to be about two and a half million lbs. In 1930-31, India had a total import figure of 1,900,000 lbs. Whereas in 1931-32, the imports of raw silk totalled 1,600,000 lbs. To these figures of 1,600,000 lbs. may be added the 225,000 lbs. Kashmir, the remaining being supplied by Mysore and Bengal. During the course of the current year 1932-33, there has been a fall in the home production which has been met by larger imports from China and Japan.

We consider that the total production in India be more than a million lbs. This is mainly due to the fall in the production in Bengal and Mysore. The causes for the decline will be dealt with under No. 51.

42. Regarding the method of sorting and grading of Indian silk, we have found that the method adopted by the sericulture department of the Kashmir and Jammu is quite good and practical. They have named their different qualities according to the merits of the silk and have graded their silk according to the proper deniers. However, as compared with foreign silks, their grading of deniers is wider; for example, they have 16/20, 20/24, etc., whereas in the foreign silk it is possible to get silks of 16/18, 18/20, 20/22, 22/24, etc., within the same range. This is only a matter for greater accuracy in grading and we consider the foreign grading to be more useful from the user's point of view. Further suggestions regarding this question have been given under Nos. 51 and 54.

47. We consider that the quality of imported silks which are said to be competing with Indian silks is quite in keeping with the prices at which they are sold. We wish to emphasise the fact that because China silks are sold at comparatively low prices in India, it does not follow that they are being sold at unfair prices.

It should be remembered, that the products of the Mysore and Kashmir filatures are much superior to those of the Canton filatures. Hence it is but natural that Canton silks should be selling at Rs. 5 per lb., whereas the Kashmir and Mysore silks are being sold at Rs. 5/8 to Rs. 8 per lb.

There are undoubtedly better qualities available in imported silks also and from our own inquiries in the market from time to time, we have found that the better qualities of Chinese re-reels coming from the Tsatslee districts and exported from Shanghai as well as the superior qualities imported from Japan are the only qualities which can correctly be said to be competing with the filature silks of Mysore and Kashmir. But these better qualities of Japanese and Chinese silks are quoted at as much as Rs. 12 to Rs. 14 per seer of 72 tolas: which comes to Rs. 6-10-8 and Rs. 7-12-1 per lb. respectively. At the same time, we wish to bring it to the notice of the Board that to-day, we are actually buying the best quality (Lotus) Kashmir silk at Rs. 6-7-6 per lb., Benares delivery, which comes to about Rs. 6-10 per lb., Bombay delivery. This purchase is made from the Bewares merchants who had bought a large quantity from the Kashmir Government.

In colour, in intrinsic and in winding qualities, we have found the samples of Canton silks which we tried, to be very low. They are difficult to wind on machines, full of flaws and very rough in texture. There can be no comparison between these Canton silks and the filature silks of India. If the Canton silks can be said to compete with any Indian silks, perhaps they might be competing with the hand-reeled silks of Mysore which are similar in quality to these Canton silks.

The better quality Tsatslee silks from Shanghai and those from Japan can favourably compare and compete with the Indian raw silks in all

respects. We have found the best qualities from Japan to be in every way superior to the best quality Indian silks. Above all, they have a very low gum percentage, good deal of softness and great tensile strength. But as mentioned above, the prices for these silks are also about the same as the better quality Indian silks. Whether the present prices of Indian silks are remunerative enough for the producers of raw silks is a question on which we cannot give an opinion, being unaware of the cost of producing raw silks and the prices of the cocoons.

48. The prices of imported silks have no doubt gone down simultaneously with the depreciation in the exchanges of Japan and China. Before Japan went off the Gold standard, the price of Canton and other Chinese silks of ordinary quality was about Rs. 11 per seer of 72 tolas, in Bombay, whereas, at present, it is as low as Rs. 8-8 to Rs. 9 per seer. It is considered that the normal price of Chinese filature silks is Rs. 12 per seer. The present rate therefore shows a depreciation of Rs. 3-8 per seer or 29-1 per cent. on the normal rate. The yen exchange at the same time has depreciated by about 40 per cent. while the Shanghai exchange which is dependent mainly on the price of silver is to-day 110 whereas the normal rate is considered to be about Rs. 150. The Shanghai exchange therefore shows a depreciation of 26-6 per cent.

The imports of Japanese raw silk into India are very small. The imports comprise practically wholly of Chinese silks. The following figures show the Shanghai exchange rate and the imports:—

—	1927.	1928.	1929.	1930.	1931.	1932.
Lowest Shanghai Exch. rate in Bombay.	160	170	150	105	81	96
Highest Shanghai Exch. rate in Bombay.	180	185	175	150	110	128
	Pre-war.	War average.		Post-war.	1930-31.	1931-32.
Imports in thousands of lbs. .	25,67	19,53		18,16	19,40	15,63
Value of imports in 000's of Rs.	1,17,25	1,10,01		1,49,90	88,17	62,17

It appears at first glance from these figures that the quantity imported into India does not bear much relation to the exchange rate. Even when the exchange rate was as high as 150 to 180, India imported as much as 1,816,000 lbs. during the post-war period whereas although the exchange was as low as 81 in 1931, the imports during that period, *viz.*, 1931-32 were the lowest since the years before the War. It cannot therefore be said that the quantity of imports has increased in any way due to the depreciated Chinese exchange. What however seems to affect the sericultural industry is not the quantity imported but the price at which it is imported. It will be noticed that over the pre-war average, there has been a fall in the quantity imported, of about 40 per cent. in 1931-32 whereas the fall in the value of the imports has been more than 50 per cent. This shows that the price of imported silk has fallen and it is here that the depreciation in the exchange supplies the competitive force to the imported silks.

The danger which a depreciated exchange constitutes is always first evident in the fall in the price and the fall in the price stimulates the imports by increasing the demand. The effects of the low price were evident during the first seven months of 1932-33 when the imports totalled the figure of 2,140,000 lbs. which exceeds the figures and averages for all the imports since the pre-war days and may, on completion of the year, be found to have exceeded even the pre-war average.

It is quite clear therefore that the depreciated exchange has accentuated the competition of imported raw silks with Indian raw silks which are thus placed at a great disadvantage in price and ousted from the market by the great bulk of the imports.

If the large figure for the year 1932-33 is a portent of the larger imports to follow, then it can unhesitatingly be stated that the depreciated exchanges of China and Japan will undoubtedly constitute a danger to the Indian sericulture Industry and that the price may go down even further. The quantity of imports may, perhaps not increase because we believe that all the Chinese silk which has been imported under the temptation of a low price, has not been consumed in India and there might be a good carry-over at the end of this year. The prices, however, may go down still further if the exchange continues to depreciate, and thus, the Indian filature owned may not be able to get any better prices for his raw silk. If however, it can be possible for Indian raw silk to be produced at a cheaper price, then there can be no danger to Indian raw silk of any competition of cheaper price. That however may take some time but all efforts at giving any help to the industry should be directed towards enabling the Sericulture Industry to produce raw silk at cheaper prices.

51 & 54. The decline in the sericulture Industry in India has been a gradual one extending over a number of years. The decline began in the province of Bengal and has now extended to the Mysore area. The Kashmir area has not been affected to any considerable extent.

The following table shows the figures for the exports of raw silk from India and in the absence of any reliable and authentic figures regarding the production of raw silk in the whole of India they provide the only barometer of the Sericultural Industry in India.

Exports of Indian raw silk.

(Value in thousands of Rupees.)

Pre-war average.	War average.	Post-war average	1930-31	1931-32.
42,73	39,68	37,88	8,94	2,96

The figures reveal a very sad plight and support the view that the decline in the Industry has been a gradual one extending over the last 20-25 years. It should, however, be remembered that although the production in Kashmir has not declined very considerably, the exports of Kashmir silk have ceased. Even making allowance for this gap in the exports of 2½ lacs of lbs. valued approximately at about Rs. 15 lacs, the decline in the exports and therefore in the production also, has been about 25 lacs of Rupees in value or of as much as 58 per cent.!

The causes of the decline in sericulture in Bengal are:—

- (1) Ravages of disease.
- (2) Fall in the export demand. We have learnt on reliable authority that Bengal silk being highly lustrous and strong, was in great demand by the velvet manufacturers in Europe. With the decline in the velvet manufacturing industry due to, the vagaries of fashion, there has been a natural decline in the export demand for Bengal silk.
- (3) Want of organisation and lack of any organised effort to develop or even to keep up the industry.
- (4) Lack of proper grading and sorting methods.
- (5) Failure to adopt better and improved methods of reeling resulting in deterioration in the reeled product.

In Mysore, the Government have no doubt made efforts to keep the industry up, and to put it on a scientific basis. But their efforts have not proved very successful and the hand reeling industry as well as the sericulture industry proper have declined a great deal. There are no doubt more filatures on modern lines in Mysore than in other parts of India, but the presence of the filatures has failed to increase either the quantity of cocoons or the yielding capacity of the cocoons. Ravages of disease have also been responsible to some extent for the decline in Mysore.

In Kashmir, the fact that the industry is a State monopoly, has saved the industry from any serious decline. Being under State control, it has been possible to keep up the industry and to prevent any serious deterioration.

As the industry is organised at present in the whole of India there is very little prospect of reviving the export trade in raw silk. The production of raw silk in India is not enough to meet the whole of the home demand. At the same time, the better quality of our filature silks can find a good market in Europe and in America if the industry is properly organised and if the following requirements are fulfilled:—

- (1) An increase in the production of filature silks which requires as a condition precedent, an increase in the production of cocoons and in the yielding capacity of the cocoons. If these can be brought about by scientific methods, just as the production and the quality of Indian cotton have been improved as a result of the institution of the Central Indian Cotton Committee and the work of the various experimental Government farms.
- (2) It is essential therefore that a Central institution on the lines of the Indian Central Cotton Committee be set up with a small *conditioning house* under their control, a staff of research workers and the provision of experimental farms to tackle the questions relating to the production and growth of cocoons and mulberry plantations. The conditioning house would be the authority on whose certificates, the quality and the grade of the Indian silk will make itself welcome to the merchants in the West. At the same time, it will be the function of the Central institution to set up quality standards for Indian raw silks and to sort and grade the products of the different areas. In the absence of such authoritative sorting and grading, it is very difficult for Indian silk to find any export market in the West where the users require definite qualities and fine grading of deniers.

52. The decline in the industry has been due largely to factors special to the particular localities in India as mentioned under the reply to question 51. If the figures which the Board might have obtained from the various silk-producing areas in India, will be examined, it will be found that the decline in the production has not been uniform in all the areas.

Among the world factors, it may be contended in a far-fetched way that as the greater production of Japan has superseded the use of Chinese silks in other markets, Chinese silk has found its way to a great extent in India at lower prices. Besides, the price of Chinese silk is dependent largely on the Chinese exchange, which in turn fluctuates very largely according to the price of silver. An exchange rate favourable to the selling of Chinese silk in India, resulting from a corresponding price of silver, would undoubtedly injure the Indian industry if it continued for a long time. From 1930, onwards, the Shanghai exchange has been inclined more towards a depreciated condition and hence the factor of silver may be said to affect the Indian industry.

Among the methods special to India, may be mentioned the absolute lack of any organised methods of marketing in India and the absence of a regular market where the Indian silk could be dealt in on a commercial scale. In our own case, the purchase of our raw material which is entirely Indian, has always been a difficult matter and we have always had to go in search of the supplies rather than having easy access to abundant supplies.

53. We believe that unless the industry is properly organised, the present decline in the industry is bound to be permanent. The mere imposition of a protective duty will not enable the industry to develop though it may help the present filature owners to make up for their losses by enabling them to get better prices. What is required is the finding

of a stable and profitable market for an ever increasing production. This involves the greater and greater use of Indian raw silk in India. This question naturally comes under question No. 55.

55. If by the word "Silk Industry" is meant the silk textile industry, we may state that the present duty on imported raw silk does handicap the growth of the silk textile industry because the difference between the duty on raw silk and the duty on manufactured silk piecegoods is quite inadequate to enable the silk weavers to compete with imported stuff. The price of Indian raw silk is higher than the price of the ordinary imported raw silk because the quality is better. Therefore, every weaver cannot afford to use Indian raw silk when he is unable to get a correspondingly higher price for his stuff because of the competition of the imported stuff. The ordinary weaver therefore turns to the cheaper imported silk; but hereagain, by making an inferior quality of the cloth, he is unable to get a good price because there is a very small margin between the duty on raw silk and the duty on the finished and woven stuff which is imported from Japan, having been manufactured thereon the wellknown Japanese methods which make it impossible for any industry to stand against their competition. The same factors which enable China and Japan to sell their raw silk in India at a low price, enable them to sell their finished silk product at a still lower price because the cost of manufacturing silk cloth from raw silk in Japan and China is much less than in India.

We wish to bring it to the notice of the Board that our own cost of manufacturing fabrics like crepe-de-chine and crepe-georgette from Indian silk is actually higher than the price at which fabrics of the same quality and of a better finish are being sold in the Indian market by Japanese importers. This is a fact which we can prove by our own figures arrived at after thorough and accurate calculations. Even if we were to use imported raw silk, it would not make any difference because, as has been shown in answer to question No. 47, the price of imported raw silk of the same quality which we are using of Indian filatures, is, if anything a little higher than the price of Indian silk. On the top of that is the difficulty of getting adequate supplies of Indian raw silk.

The remedy which we suggest for this state of affairs is that:

The difference between the duty on imported raw silk and the duty on imported silk piecegoods should be widened: that is to say, that if the duty on imported raw silk were to be raised to 50 per cent., the duty on imported silk piecegoods should be at least 100 per cent. We would emphasise the fact that if a case were to be made out for the silk textile industry, it would be found that at present all the three conditions laid down by the Indian Fiscal Commission for granting protection to indigenous industries, would be fulfilled. At the same time, in order to ensure an abundant supply of the raw material in India, the sericultural industry also requires protection and development so that on the whole, India may be self sufficient in her sericultural and silk textile industries.

56. The sericultural industry does possess natural advantages as enumerated by the Indian Fiscal Commission; it also has a large home market.

It is not so much a question of the Industry not developing at all or not developing rapidly. The industry is an old one and what is wanted is the provision of sufficient help and encouragement to the sericultural industry to enable it to stand on its own legs and meet successfully the competition from abroad.

It will certainly be able to face world competition in future if at the present stage, sufficient protection is given to it to enable it to be strong enough.

57. We cannot give any definite opinion on this matter because we are unaware of the actual cost of production in the Filatures. Regarding the period also we cannot advocate any definite period because it is not possible to say how long the present depreciation in the exchange of Japan and

China will continue. It is also not possible to predict how long the world factors affecting the prices of imported silks will dominate the Indian market. But naturally, so long as all the factors disadvantageously affecting the industry continue to operate, the industry should be given due protection and help.

The protection should be given in such a form that along with the help it may give to the industry, it should provide for an ever increasing production, a reduction in the cost of production, improvement in the organisation and adoption of organised methods which will ultimately prove to be strongest means of protection for the Industry.

We therefore beg to suggest that part of the proceeds of the increased duty on raw silk should be earmarked for helping the institution of a central organisation and a conditioning house.

58. As we have already explained in reply to question No. 55, any increase in the duty on raw silk will adversely affect the silk textile industry as well as the handloom industry. Because, it will not be possible for some years to come, for India to be self sufficient in the matter of her requirements of raw silk. Hence the use of imported raw silk will be absolutely necessary for a large part of the silk textile and the handloom industries.

An increase in the duty on raw silk would mean an increase in the price of both the imported and the Indian raw silks also. Hence it would mean an increase in the cost of the silk cloth to the silk textile manufacturer. If therefore, the textile manufacturer and the handloom weaver are not sheltered by a heavier duty on imported silk piecegoods, the silk textile and the handloom industries will suffer very badly. This will also have its repercussion the sericultural industry in a reduced demand. By the imposition of an additional duty on imported raw silk, it is no doubt sought to provide a safer home market for the sericultural industry. And, the home market for this industry is composed of the weavers and the textile manufacturers. If these latter are adversely affected by the increased duty on raw silk, the demand for Indian raw silk will diminish and the sericultural industry will ultimately find itself in a much worse plight than what it is in at present. The imposition of an additional duty will not by itself enlarge the market for Indian raw silk. The filature owner may put up his price, but it will result in an ever shrinking demand for Indian raw silk, in the closing down of Indian silk Mills, in the throwing out of employment of thousands of silk weavers and in ever increasing imports of silk piecegoods. To avoid all these economic catastrophes for the industry, it is but logical and even essential that the users of Indian raw silk, viz., the silk textile manufacturers and the weavers should be given more help and encouragement by the provision of adequate protection. This in the end will prove to be the most potent form of protection for the sericultural industry.

59. From our own calculations, we are able to give the following exact figures regarding the proportion of the cost of twisted silk and of silk piecegoods:—

Percentage of the cost of twisted silk, 86.5 per cent. represented by raw silk.

Percentage of the cost of silk piecegoods, 50 per cent. represented by raw silk.

Mr. Abdur Rauf, B.A., LL.B., Bulundshahr, United Provinces.

Letter dated the 20th February, 1933.

I beg to acknowledge the receipt of your letter No. 88, dated the 31st January, 1933, containing a copy of the questionnaire in connection with the enquiry on silk industry. I enclose herewith the answers which I have attempted. I hope they may be of some help to the Board.

Enclosure.

Before I take up the questions one by one, I must state at the out-set that pure silk weaving is very rarely carried on in India except a few quarters for instance Amritsar and Kashmir in the Punjab, Benares and Azamgarh Districts in United Provinces, Bhagalpur and Murshidabad in Bengal. Excluding these quarters, pure silk weaving is nowhere carried on worth naming. Imported silk goods has destroyed the local Industry and in these days Japanese artificial silk goods has paralysed even those centres like Benares whose silk piece had acquired the worldwide fame. No industry in India can flourish unless the import from Japan is stopped or discouraged by heavy taxation and facilities are supplied to the local weavers.

ANSWERS.

1. By area I mean the Meerut Division consisting of Dehra-Dun, Saharanpur, Muzaffarnagar, Meerut and Bulandshahr Districts. The total population of weavers is approximately one lakh (100,000).

(i) Out of this number hardly two or three hundreds are engaged in pure silk weaving.

(ii) About 500 in making saris, etc.

(iii) The rest are engaged in weaving cotton goods only.

2. Silk and artificial silk so sent for from Bombay, Delhi and Amritsar. Gold thread is used mostly of Surat Manufacture and in very small quantity of Delhi make. Silk yarn is mostly imported from Italy and Japan with a little quantity from Mysore, Kashmir and Assam.

3. With the exception of dying which is done by dyers the other processes are performed by the weavers themselves on spinning machines (called charkhas).

4. In both warp and weft, spun and tussa silk are mostly used.

5. In this division, the saris, lungies, dupattas, handkerchiefs, suitings and shirtings are mostly women competition. Competition is mostly felt with imported (Japanese) artificial silk goods.

6. No exact period can possible be given for each kind. A weaver generally weaves 10 yards of 44" width if plain cloth on fly-shuttle loom per day.

7. The same kind of silk is mostly used as stated in question 4. The quantity varies according to the bulk of the piece.

8. The saris and dupattas have definite breadth of 44". The other kinds of cloth mentioned in question 5 are generally woven of 27" width. The piece approximately is from Rs. 13 to Rs. 15 of a pair-sari.

9. Approximately the annual production of silk cloth is of the value of 3 to 5 lakhs.

10. Spun silk is used for warping, but in suitings and other stiff cloths for both warping and weft.

11. Silk is supplied on cash prices.

12. Through retailers.

13. Indian silk is better and finer but more costly. It is used only for making pure swadeshi silk goods.

14. This system is not applicable to silk weavers.

15. The introduction of artificial silk has ousted the real silk weaving industry from many centres due to its low price. It is a real menace to the real silk weaving industry.

16. The cost of manufacture of a typical class of cloth is—

(1) Raw material is 65 per cent.

(2) Twisting and winding, 3 per cent.

- (3) Dying, 2 per cent.
- (4) Weaving and cost of labour, 25 per cent.
- (5) Other charges, 5 per cent.

The weavers are paid according to per piece from one anna to two annas per yard.

17. No help is rendered by Co-operative Societies. This division is very backward in this respect.

18. Meerut and Delhi: About 10 per cent. is sold at the place and the rest is sent to the capital places of market. The charges of transporting the goods is from 2 to 5 per cent.

19. The demand for natural silk is increasing but the last two or three years has pulled it down.

20. Swadeshi silk is supplied from Assam, Kashmere and imported from Italy and Japan.

Pandit S. S. Pande, M.L.C., Ahraura.

Letter dated the 28th February, 1933, from the Collector of Mirzapur, United Provinces.

I have the honour to say that the questionnaire issued by the Tariff Board as to sericulture reached my office on January 21 from the Director of Industries and reached me in camp in this district (parts of which are very inaccessible) on January 26, and I regret that it is not possible for me to give more than a very sketchy reply within the time available. The business, however, carried on in this district is not important.

Question 1.—Silk worms are reared to some extent in the extreme south of the district and the cocoons are, together with other jungle produce, brought by pack bullocks a distance of from 60 to 90 miles by Kuchcha road to the small town of Ahraura where a certain amount of silk reeling and weaving is carried on.

Question 2.—The Ahraura industry is in a bad way and the Director of Industries, United Provinces, has recently asked the Government Weaving Institute, Benares, if it can assist with advice.

Question 3.—There is no organisation. The inhabitants of south Mirzapur who are mostly members of primitive aboriginal tribes collect the cocoons.

Question 10.—There is a Forest Officer in the Government Dudhi Estate who may be able to supply some information if further time can be allowed. The present officer's predecessor made some attempt to encourage the growing of mulberry trees at a small scale.

As the population of Ahraura is under 10,000, as not many of its inhabitants engage in silk weaving, and as, so far as I am aware, the silk cocoons are not exported from the South of the district except to Ahraura, it will be seen that the scale of the industry in this district is very small. If it is thought likely that the production of cocoons could be made very profitable to the primitive cultivators then the fact that a Forest Officer of the Provincial Service is posted to the Dudhi Government Estate would make it possible to give some assistance. As to the industry in Ahraura, as noted above, the Benares weaving Institute is shortly to make some enquiry.

Since drafting the above report I have received a long note from Pandit S. S. Pande, M.L.C., who lives at Ahraura and who is the proprietor of one of the three markets in that place which deal with the trade from the South Mirzapur. This gentleman is well acquainted with the conditions in Ahraura town itself but naturally does not know much about the area where the cocoons are produced. He has, however, supplied some information on that part of the questionnaire as well and I am much indebted to him for his detailed reply.

Enclosure.

REPLY TO THE QUESTIONNAIRES BY PANDIT S. S. PANDE, M.L.C., OF AHRAURA.

1. (a) Cocoon is reared over large areas in Pargana Kon.

(1) Kharauna, Pandochatwi, Phulwar (Wyndhamgunj), Narhati, Gaighat, Harwalia, Kachnerwa and many other villages. Gaya and Behar people take their supplies from these places and Patwas of Ahraura.

(2) Lohra, Sukrut, Parahi, Madhupur, Mubarakpur and Baghar, Pargana Ahraura.

(3) In Naugarh (Benares State) adjoining Mirzapur district. (a) Entirely 8, (b) Partly dependent 15—All in Ahraura.

(i) Silk-worm rearing is done by Turia, Mallahs and Dheenar in Kon area and Kols in other parts mentioned above.

(ii) Reeling for their livelihood in this district is done by 23 persons in Ahraura alone and nowhere else.

2. There is no capitalist and financier for this industry here. The industry is carried on a small scale for lack of organisation and financial help.

3. (1) About 500,000 cocoons are produced in this district owing to no support and organisation. If this were organised and the organisation put under sound financial basis, there are very wide scopes for development as it is reared on Asan trees principally and on the worm attaining a size of about 6" it rears up on any tree.

Weavers who belong to the Sikh religion and are called Patwas, manufacture thread from the cocoons.

(2) In Ahraura about 150,000 cocoons are brought every year. No statistics are available. The weavers keep no record. The figures quoted are approximate. The production is deteriorating which is due to some cause or carelessness on the part of the rearers. 3,000 cocoons produce 40 yards cloth-width 1 yard. Weight of one piece of 40 yards is 146 bhars.

4. This question cannot be answered here, as I know nothing of the technicalities of the thing and have made no comparison with the Chinese or Japanese produce.

5. Only one kind of silk-worm is reared here. Cocoons with living worms are preserved in earthen pots in cool places. In the beginning of the rainy season the cocoons are hung under the roof outside the house and the worm inside the covering cuts it open and sits on it outside. These worms are possessed of wings at this stage and they generally come out in the evening and fly to other places of rearing during night for fear of being eaten up by birds. The male worm of one place flies to the female worm of the other place and *vice versa*. The act of copulation lasts without interruption for 24 hours. The rearers separate them. As soon as they are separated the female lays down about a 100 or more eggs of the size of small pearl. The whole lot of these eggs is tied up in a piece of cloth. This little bundle is kept in a cool place. After a day or two these eggs are transformed into the shape of a spider, each egg producing 15 to 20 spider-like worms. These are kept in a bowl made of green leaves. These leaf bowls containing myriads of these worms are tied to the leaves of the Asan tree. The worms immediately find their way on the tree. They feed themselves on the leaves of the tree and grow. These developed worms spin a shell to cover them. After a week or so they come out by cutting the shell and repeat the process of spinning another shell over them. This shell is the final and the stronger thing in which they live. Now these cocoons take more than a month to develop into their final shape. These cocoons hang on the branches which are cut down and the cocoons are later removed from the branches. Now these cocoons with the insects enveloped in them are ready for the market.

6. (a) No special house is constructed for rearing. Therefore the question of cost does not arise in this case here. The question of improving the rearing houses can best be gone into by an expert and he would be the proper man to make right suggestions if any are needed.

(b)

Race of variety.	No. of days.	No. of cocoons to a lb.	Length of filament.	Denier.
Green silk-worm with golden round spots on its back.	150 days	800 cocoons	800 yds. in one cocoon.	..

7. The answer to this question is out of my scope. This can be answered by one who has seen different methods at different places. But I presume that there must be some sort of difference.

8. Worms are reared from local seed. There is no separate organisation. The only control that is exercised over the selection of cocoons for the production of seeds is that most healthy and robust cocoons are selected and preserved for the purpose.

9. Unintelligible to me.

10. In this district the worms are fed on Asan leaves. The culture is not done on mulberry leaves here. The rearing is done on Asan trees in jungles. Nobody grows this tree. The land is not prepared. Rearing is done on self grown trees. More details enquired of cannot be answered for want of deeper insight and practical experience into the matter.

11. Does not arise.

12. None.

13. They don't die a natural death generally but they are prey to the birds. Wasps, crows and some other birds attack the worms and kill them. The percentage of death in this manner would be 25.

14. No particular disease occurs every year but sometimes there is an epidemic which brings about 75 per cent. destruction and the remaining cocoons are very weak and poor.

15. Yes, I do. The climatic condition in the area with which I am concerned is suitable.

16. This cannot be correctly answered.

17. Do.

18. The grower keeps about 500 cocoons for seeds when he sells out for reeling purposes about 8,000 to 10,000 cocoons.

19. He sells them as cocoon. As soon as the crop is ready he sells the cocoons without keeping them in his house in expectation of higher prices. The growers inhabit the interior hilly portions of this district. The price of cocoons per 1,000 in the jungle where it is reared ranged from Rs. 8 to Rs. 6 between this year and last five years.

20. Reeling is done by hand and by single and multiple desi charkha. Power driven machinery is not in use here.

21. 800 cocoons yield 1 lb. raw silk thread. Answer relates to silk reeled by hand. There is very little waste.

22. Equipment used for hand reeling costs about Rs. 2; the equipment lasts for about 8 years if kept in constant use and with care. This equipment reels out thread out of 3,000 cocoons in a day.

23. (i) Rs. 2 for reeling 800 cocoons equivalent to lb. of raw silk.

(ii) Nil.

24. They are at great disadvantage owing to very limited outturn due to hand labour which is proportionately less yielding and costlier than machine made silk of foreign manufacture.

25-27. Unable to answer.

28. Answer will be found in the early part of these answers. Approximately 1,200 people are engaged in rearing silk-worm in this district.

29. Skilled labour is not available. It is very limited and restricted to about 25 persons in Ahraura. Untrained people take about two months to acquire maximum skill.

30. Mysore domestic basis is not known here.

(i) The professional patwas engage themselves in this industry here. The wages for reeling out silk thread from 100 cocoons is As. 4. This process takes two days. Charkha driving wages per day are As. 6.

(ii) To the extent of 60 per cent.

(iii) There are a few weaving institutes established on behalf of the provincial Government which in fact render no useful service and training to the people at large being located at distant places and in large cities alone.

31-34. Outside my scope to answer. Men in profession and trained in this particular branch of industry alone are expected to answer.

35. No other processes are carried out. Waste silk is not used by the local reelers here. They are purchased by others for various uses detail of which is not known to me.

36. Unable to answer.

37. Outside my scope.

38. (i) 90 per cent.

(ii) 75 per cent.

39. The entire quantity produced in this locality is manufactured into silk. It is not exported to other parts of India.

There is an agent here who purchases silk cloth from spinners. People purchase from the agent.

40. Outside my scope.

41 & 42. Nil.

43. I don't know.

44. None.

45. I don't know.

46. I can't say anything with regard to this.

47. Outside my scope.

48-50. Question for experts to answer.

51. Poverty of the masses and lack of financial support and agricultural advice.

52. For experts to answer.

53. Appears to be of a permanent character.

54. Government knows it best.

55. Unfortunately I have not had the opportunity of knowing this.

56. I claim all that is contained in A, B and C of this paragraph.

57. (a) This is difficult to state correctly.

(b) In the form of expert advice, financial support, putting up machineries by Government.

(c) At least for a period of 10 years.

58. (a) & (b) Both will I am sure make good progress and in due course become self supporting.

59. Unable to answer.

60. Yes.

(1), (2) & (3) Unable to say anything about these.

Rai S. N. Sinha Bahadur, Nehalia Estate, Murshidabad.

Letter No. nil, dated the 17th March, 1933.

On the 24th of February last I handed over to you at 1, Council House Street, Calcutta, one copy of some written answers to your circulated questionnaire, when I went to give evidence before you as a non-official representative from Murshidabad, sent by the Collector of Murshidabad, Berhampore. In response to your request I beg to send you herewith enclosed six copies of the same answers after having done a little change together with some other informations.

Enclosure.

1. In Bengal silk-worm are reared in Murshidabad, Birbhum, Malda and Rajshahi districts of which in Murshidabad district silk-worms are found chiefly in thanas of Raghunathganj, Lalgola, Nabagram and in some parts of Sadar and Kandi sub-divisions. The silk-worm rearers are generally found to inhabit in the bank of any navigable river. These are the cases in Murshidabad, Birbhum and Malda.

In Malda over 75 per cent. of the silk-worm rearers have abandoned the rearing and the area is confined in some villages of Bholahat, Mohudipur, Sherpur, Jalalpur, etc., and in Birbhum district they are mainly confined in Rampurhaut sub-division extending some parts of the Sadar sub-division of Suri.

(a) (i) In Bengal approximately the rearers of silk-worm are not less than 3,000 families of which not less than 5,000 people are entirely dependent of the silk-worm rearing industry and (b) another 10,000 people are partly dependent of silk-worm rearing only. Moreover, about 30,000 people are helpers and live on the earnings of the industry, such as, weeding, basket-making, etc., and besides that there are a large number of weavers.

(b) (ii) For reeling purpose about 10,000 of people are engaged and they are mainly dependent on the work.

2. For rearing purpose the rearers themselves manage to invest capital from their own funds. The reelers borrow money from the dealers of the silk yarn and the weavers take advance from the middlemen.

(3) (i) About 180,000 maunds of cocoons are prepared throughout the whole year from three to five seasons in whole of Bengal.

(ii) Each maund of cocoons generally yields two seers of silk yarn. The condition of the last five years is not changing much, still on the last fifth year it was better than this year. And this decay is being taken place gradually. This variation has been taken place for the fall of market and due to the failure of silk-worm.

4. The first class cocoons yield per maund $2\frac{1}{2}$ seers of silk yarn and the inferior quality $1\frac{1}{2}$ seers. (Regarding the Japanese and Chinese cocoons we have got no idea.) It is true that some filatures in India were closed for want of adequate supply of Indian cocoons. These filatures belonged to the European people and were used to export silk yarn to the foreign countries, whereas, silk yarn prepared by hand machine are generally used by our weavers.

5. There are two kinds of silk-worms reared in Bengal. Selected cocoons taken as seed, are placed in healthy thatched rooms. After 8 days butterflies come out of the cocoons and in the next week it breeds eggs. From the eggs silk-worms are germinated. There are four stages and in the last

stage it becomes red and does not eat mulberry leaves but from their mouth a kind of saliva comes out which becomes thick and makes the cocoons.

6. (a) Taking five maunds of cocoons expected, a house may be constructed at the cost of Rs. 300. The recurring expenses in a year will not exceed Rs. 50 and during the renewal it may cost Rs. 150.

Generally poor people rear silk-worm in their own houses and they are used for their own purposes. But in the districts of Malda and Birbhum there are separate rooms for rearing the worms. The equipment may be improved by keeping separate rooms for that purpose.

(b) (i) The race of variety in Bengal does not affect much.

(ii) From seed to preparation of cocoons it takes about 45 to 50 days.

(iii) Generally from $\frac{1}{2}$ seer of cocoon seed one maund of cocoons is available and the yarn weighs two seers.

(iv & v) Approximately 1,200 feet yarn weighs from 12 to 60 deniers according to thickness and thinness of yarn.

7. The rearing, reeling and weaving are mainly dealt with by uneducated and rural people while in China and Japan this industry is dealt with by the educated and trained experts backed by the Government.

8. The seeds are exchanged from different districts in different seasons. For the purpose of seeds, silk-worms are reared separately and some times best kinds of cocoons free from any disease are taken for seed. The rearers do take special care for making seed cocoons and the actual cost of such seed is just the price of the best cocoons. Best cocoons can be purchased now at 10 annas per seer.

9. The silk-worms in Bengal are bivoltine only. From an ounce of cocoon seed five lbs. of cocoons are produced or 3,200 cocoons in number. For a season only for one maund of cocoons $\frac{1}{2}$ seer of seed is hatched and there are 3 to 5 seasons in a year.

10. Mulberry leaves are fed by the silk-worms. Generally mulberry leaves are cultivated by the rearers themselves. But in the district of Malda, the system of purchasing mulberry leaves is prevalent, which is not found in the districts of Murshidabad and Birbhum.

11. The cost of cultivating mulberry plants in an acre of unirrigated land is approximately Rs. 157 while the cost of cultivating alternative crops is Rs. 10.

12. In Bengal the bush mulberry plants are cultivated and the lands are regularly tilled and supplied by cowdung manure. But in the district of Malda a kind of plant grown in some big "Beel", called "Bhod", are used as manure. Now the Director of Agriculture has introduced the tree mulberry, which is expected to yield leaves without any cultivation cost. This is not yet experimented.

14. There are various kinds of diseases from which the silk-worms suffer. The silk-worms are very sensitive, even if one smokes in the rearing room it may affect the health of the worms and the diseases are not properly named. Only four kinds of diseases may be mentioned in Bengali, viz., Kata, Rasa, Kalasira and Chunakata or Chhatapara. The rearers take precaution of preventing flies to get into the rearing rooms and keep sufficient doors and windows for free air and light. The affected worms are rejected to the other worms.

15. Yes, we are agreed that climate is the most important factor on the development of sericulture and humidity affects much the general condition of the worms. The best climate of the silk-worms is the months of Agra-hayan to Chaitra, i.e., from 15th November to 15th April. The rearers in other months also rear the worms but their success is not certain. Yes, the climatic condition in the area where the worms are reared is suitable and there are more areas where the sericulture may be developed suitably. Ranchi may be experimented also.

16. From an ounce of seed $2\frac{1}{2}$ seers or 5 lbs. of cocoons can be had.

17. (a) Taking one acre of land as unit the cost for the last 5 years on average is Rs. 157 per year and the out-turn is 10 maunds valuing Rs. 200.

(1) Rs. 16.

(2) Rs. 57.

(3) The labour is the price of food shown in (2).

(4) Rs. 5.

(5) Other expenses such as manuring, rent, etc., Rs. 79.

(6) Total Rs. 157.

This is the figure for Bharatpur thana, Kandi sub-division in the district of Murshidabad.

18. The seeds are kept only one-eightieth part of the cocoons expected.

19. The rearers of the silk-worms sell the cocoons to the reelers. They sell that irrespective of state of market, cannot keep till the rise of suitable market. The average market rate for a maund of cocoon in last 5 years is Rs. 25. But now the price has come down to Rs. 20 and even less. The rearers do not reel themselves and the reelers get out of 100 lbs. of cocoons 5 lbs. of yarn, 33 to 50 lbs. of Chasam or waste silk.

20. Approximately half of raw silk is produced by country charkha and half by steam supplying boiler, attached in factory. Particularly, there is no power driven machinery in Bengal. At first the cocoons are purchased from the rearers and placed in the sun and the worms within the cocoons are killed and the yarn is drawn out by one man and a boy, who revolves the charkha and the yarn is taken out classifying each quantity to be 2 ounces. And the Chasam comes out of the outer cover. In the month of Aগ্রহায়ণ when the sun's rays are not strong, the cocoons are placed in a tomb, called, "Tundar" specially made for the purpose, where fuels are burnt to keep the tundar warm. By this method the worms are killed and the fibres become loose for easy reeling.

21. On average in the last 5 years, 10,000 maunds of raw silk yarn have been prepared per year, but in the recent years the out-turn is gradually and speedily going down. The out-turn before the period was not less than one lakh of maunds per year. Before 20 years the average out-turn may be taken to be 3 lakhs of maunds. These are the figures taken from the expert silk manufacturers. Actual figures can be had from the dealers of raw silk. Chasam or waste silk can be obtained at the rate from 33 per cent. to 50 per cent. of raw cocoons. For a pound of raw silk 20 lbs. of cocoons are required numbering 12,800 cocoons. When one pound of silk yarn comes out of cocoons, then 8 to 10 lbs. of Chasam or waste silk can be obtained. These are reeled in filature. Those cocoons are reeled by hand—they are generally known here as Matka yarn. This process of reeling is prevalent in some villages of Malda district only. The method of reeling by hand is thus:—

The cocoons which are unfit for filature work are left for cheap selling and some females of Malda district purchase them at nominal price and keep them under water for a few hours and take out the yarn by *taku* and twist them winding the *taku* just the same as the thread is made out of cotton by *takli*.

23. Taking the answer of (b) first, a pound of raw silk costs Re. 1-4 for reeling purpose and so the figure for (a) can be calculated from the quantity of raw silk shown in paragraph 21 (10,000 maunds).

(i) By charkha (it is meant country charkha by the process of firing the furnace by wood burning) half of the production of silk is prepared.

(ii) Another half by filature which means the charkha, but water made hot by steam.

Under the following heads:—

(i) 100 lbs. of cocoons valuing Rs. 31 which will yield $2\frac{1}{2}$ seers of yarn.

(ii & iii) For 100 lbs. of cocoons when placed for silk yarn cost As. 8 and for fuel and for labour Rs. 2-8.

(iv) It is mentioned within (ii & iii).

(v) The cost of management and supervision for 100 lbs. of cocoons or 2½ seers of silk yarn is As. 2.

(vi) The cost of repairs and maintenance As. 2.

(vii) Selling expense is six pies.

(viii) Other expenses six pies.

(ix) Total Rs. 3-5.

22. For hand reeling one *taku* is necessary, which costs almost nothing. If a man works continuously for 8 hours with this *taku*, the out-turn may be 2 ounce in maximum.

24. Yes, we think if these charkhas are worked by machine powers the items of cost may be less.

25. Cost for 100 lbs. of cocoons yielding 2½ seers of yarn has been given. In any filature the cost will be same.

26. A filature having 100 charkhas may conveniently be worked out. To establish and construct such a filature Rs. 7,000 are necessary, and for the working of such a filature Rs. 50,000 are necessary.

28. Approximately 15,000 of people are engaged in rearing the silk-worms and 10,000 people for reeling. For preparing chasam or waste silk about 1,000 people are engaged. There are not less than 5,000 (approximately) weavers, besides that there are a good number of carters, etc., 20 years ago, the number of these people were 10 times and in past ages were 100 times.

29. Taking one factory of Hazi Muniruddin Ahamad of Jangipur in the district of Murshidabad 200 people are skilled. Besides that 15 men are required for supervision. Adequate number of skilled labour are now always suitable because the persons who were engaged before in this work have not forgotten the skill of the industry. To get a skilled man 3 years' working is necessary.

30. (i) (a) 2 men are necessary for charkha work—one is an adult and another a boy. The adult gets Rs. 8 to Rs. 12 and the boy gets Rs. 4 to Rs. 7 per month. The boy revolves the charkha and the adult brings out the yarn from the cocoons.

(c) The same wages with any filature and we make very little difference between charkha and filature.

(ii) For insufficiency of Indian labour the sericulture industry is not practically hampered. As the business has become a losing concern—the industry is going down. On the other hand the number of unemployed persons is increasing speedily.

(iii) (a) For reeler two Mysore Domestic Basins have been introduced in Berhampore and Malda. As the Silk Weaving Institute of Berhampore has been recently removed to some other building, the work of the Basin at Berhampore is not yet experimented and so we cannot express our opinion at the present.

(b) For rearers there is a school at Berhampore in the district of Murshidabad—there are text books, prizes, etc., for encouragement of the students of the school. They can hold certificate and after passing they can rear silk-worms under the Government supervision.

32. The present estimate of a filature, containing 100 charkhas is Rs. 7,000 which has been mentioned already.

34. For a filature having 100 charkhas Rs. 50,000 are necessary. The working capital is generally obtained from the purchasers of the silk yarn at Rs. 12½ per cent. per annum.

35. Throwing of raw silk by that we mean the cocoons from which yarns can not be taken out are sold to the hawkers, who resell them to the reelers who work in hand by *taklis*.

37. By raw silk or silk yarn the weavers in Bengal specially in the districts of Murshidabad, Malda, Bankura and Burdwan make dhuti, sari, chaddar, coatings and shirtings, etc., and a great quantity of silk yarn is transported to the other provinces.

38. (i) The total Indian demand has become very less and the foreign silk has captured all the great markets of Indian silk. If the foreign silk is ousted the demand of Indian silk may be increased in great extent.

(ii) The capacity of Bengal to produce silk can easily be estimated to be one lakh maunds of silk yarn.

39. Chasam or waste silk are not used locally—they are sent direct to Calcutta and thence to foreign countries. The chasam which is taken out of the factory goes through some operation before sending that out to Calcutta.

41. The silk yarn which are directly sold to the weavers make no difference with the merchants. The local merchants charge extra commission, interest for the money they advance and extra "Britti" with concession of one bunch of silk yarn, weighing about 2 ounce per maund and they also realize commissions from the buyers from other provinces.

Taking the allowance for freight, etc., no perceptible difference is seen.

42. Silk yarn are graded and sorted according to the count of yarn, i.e., ascertained by measure of deniers. The method can be improved. Like the foreign countries the yarn may be sorted and graded by different marks showing counts and quality and this should be done according to texture, strength and uniformity of yarn, etc.

43. The answer of this question I think has been given in 41.

44. Foreign silk is not used in the district of Murshidabad in large quantity.

45. The answer of this question can be had from the Government Silk Weaving Institution of Bhagalpur and Mr. R. N. Bansikar, Nathnagar, Bhagalpur.

46. If Bengal silk is placed side by side with the China or the Japan silk the quality of the Bengal silk will be proved much better, but on the out-look the foreign silk will seem better and the methodical way of selling of the foreign silk is injuring the interest of the Bengal silk.

47. The answer of this paragraph covers in the previous paragraph.

48 & 49. No knowledge.

50. The Principal of the Serampore Weaving Institute has invented a machine to be used by hand, whose cost only is Rs. 10. This may be conveniently used as a cottage industry. To work it out in a business like way Rs. 1,000 may be required in each centre.

51. The present conditions of decline are as following:—

Lack of proper knowledge and co-operation among the silk-worm rearers and the crude method of reeling in vague.

52. I do not think that the decline of the silk industry in India is getting natural death. It has perhaps no connection with the world factors.

53. The decline of the silk industry is systematically going on for the last 50 years about. If this sort of decline goes on, the silk industry will vanish in near future.

54. There are manifold reasons for the decline of export trade in raw silk, waste silk and cocoons. Of these, want of organisation, want of methodical way of selling in foreign countries are mentionable.

55. If there be any duty levied on the Indian raw silk that will seriously affect the industry. So, I suggest it to be free of any sort of duty.

56. (a) Yes; this industry has got natural advantages and supply of raw materials available sufficiently. Sufficient labour is available but the market should be revived by exertion.

(b) Yes, at the present stage, without the protection duty the industry can not be developed and I am sure that without the protection duty the industry will decline gradually.

(c) I think that this industry can face the world competition without the protection duty after twenty years.

57. (a) Cent. per cent. of value of foreign silk may be levied on the foreign silk as duty with reserved power of Government to increase the duty if necessary.

(b) The dealers of foreign silk may be charged with extra tax for dealing with foreign silk according to the quantity they consume

(c) At least for a period of 20 years.

In the meantime the reasons for answers are—the country has got an awakening and organisation is expected for the improvement of the Indian industries and the country is getting training in business very rapidly. The Reformed Government may give more facility for the development of the Indian industries by financing the industrial people. In twenty years this industry will gain sufficient market and ground.

58. (a) The silk textile industry in India may have a wider market in India and outside India.

(b) The consequent effect on handloom industry will thrive. By the improvement of this industry no other industry will be affected, rather by wealth of this industry other industries will flourish.

60. (1) Yes, if the protection duty be enforced for a certain period the production cost can be reduced by methodical works.

(2) The cost will be reduced to the extent of 25 per cent. and the particular cost for cultivation may be reduced or in another way production may be increased.

(3) By scientific way of cultivation and by improving the method of cultivation by a small cost greater yielding of mulberry leaves can be had. Rearing cost can be reduced by proper organisation. Reeling cost will be reduced by working machinery powers the weavers can reduce their cost by using recent improved looms and abandoning old crude methods.

Corrigenda.

Apart from the sericulture industry, which stands in immediate need of protection, the silk weaving industry also deserves immediate Government assistance. I trust that the Tariff Board will see their way to make an enquiry into this important matter and will see the country handlooms and other looms before submitting their report to the Government.

The silk industry has suffered greatly owing to its being a domestic industry only. Its products are consumed mostly in the country and the large commercial centres know little of it. The industry has also been neglected by the Government. Some of the main causes of its decline are mentioned hereunder:—

- (a) Absence of organisation.
- (b) Lack of capital.
- (c) Absence of marketing facilities.
- (d) Absence of up-to-date methods of works.
- (e) Invasion of the Indian markets by cheap foreign supplies of silk.
- (f) Degeneration of the silk-worm, and diseases of the worms, etc.
- (g) Want of proper education of the rural silk manufacturers, particularly with respect to changes of fashion and outlook.

The exports of silk raw and manufactured, from Bengal from the year 1923-24 to the year 1930-31 are shown in the following table:—

	Raw	Manufactured.
	Rs.	Rs.
1923-24	15,14,420	2,83,800
1924-25	7,16,066	1,13,974
1925-26	6,25,302	1,22,228
1926-27	2,41,505	1,20,813
1927-28	2,49,548	92,605
1928-29	1,48,785	71,608
1929-30	2,89,105	60,029
1930-31	2,16,244	12,821

The approximate number of handlooms and weavers working in the district of Murshidabad for silk weaving industry, is shown below:—

	Handlooms.	Weavers.
Mirzapur vicinity	390	550
Islampur vicinity	1,200	1,500
Jiaganj and Kandi vicinity	300	500

Silk cloth produced in all the centres in Murshidabad worth Rs. 6,00,000 out of which about silk cloth worth Rs. 1,50,000 remain unsold every year.

The decrease in mulberry cultivation has brought a great loss to the landlords of Bengal. The tenants, who cultivated mulberry plants, got more money and could easily pay up their rents to the landholders; but now-a-days they cannot pay up their rents as their lands remain generally uncultivated.

The silk industry is capable of revival and of further growth as observed in Mysore and Kashmere states. There is a large demand in the country for the Indian silk fabrics, which the silk weaving industry of this province as well of other provinces are capable of meeting, provided they are given the necessary encouragement. We observed that the sale of the Murshidabad silk has been increased to some extent as the All-India Spinners' Association purchases the silk cloths from this district.

It was resolved in the Presidency Division Co-operative Conference, held in 1929 that the silk union be started in Murshidabad district under the co-operative method in different places to create market for the sale of the Murshidabad silk products and to save the poor weavers from the hands of the middle men and that the attention of the Government be drawn in this respect.

The states of Mysore and Kashmere are trying for the development of the silk industry and they are successful to some extent. Similarly, it is hoped that our Government also will exert themselves to give the State help and other necessary assistance for the development of the Bengal as well of Indian silk industry.

The silk weavers of Murshidabad district are not accustomed to work with fine silk fabrics. Once I myself purchased a little quantity of fine silk yarn from Kashmere and gave to the local weavers; but they could not successfully work with that. So, I advised them to mix the fine silk fabrics of Kashmere with the fine quality silk yarns of Murshidabad for preparing chaddars. The prepared good, no doubt, were of superior quality. Now it has been restricted to a great extent to export silk yarns from Kashmere to other provinces.

To speak in short, three main things are necessary for the revival of the dying silk industry, viz.:—

- (1) Railway facilities, and concession in freight, etc.
- (2) Introduction of improved looms and other machineries—expansion of sale by propaganda work and establishment of sale centres.
- (3) Imposition of protection duty for some years.

Detaill informations of Murshidabad silk cloths.

1. Weight of one piece of sari (45 inches \times 5 yds.) made of Murshidabad silk yarn and finished with starched water is $2\frac{1}{2}$ chhataks to $3\frac{1}{2}$ chhataks. (16 chhataks made one seer=80 tolas.)
2. One seer of raw silk becomes 10 to 11 chhataks after bleaching.
3. Bleaching cost of one seer of raw silk is As. 4 only.
4. Making charge for one seer of the warp is Rs. 6 only.
5. When the merchants advance silk yarns to the weavers, the weavers get the making charge including the cost of making the warp. Otherwise when the weavers sell the silk cloths, they include the cost of warping in the price of the cloth.
6. The weavers do not make the warp themselves—they make it by others.
7. If the weavers do not get the silk yarns re-reeled by their own female members, they get it by other females of their villages.
8. The price of the warp is higher than that of the woof, as the warp is made of finer quality of silk yarns. Now the woof is sold at Rs. 10 and the warp is sold at Rs. 12 per seer.
9. The cost of colouring the borders varies according to the quantity of silk yarns required for the border, as quantity of silk yarns varies according to the design of border. Generally it costs from As. 8 to Rs. 4 only per seer and in every piece of cloth it costs extra charge of one anna to five annas for colouring the borders.
10. The weavers standardize the price of a piece of silk cloth weighing three chhataks at Rs. 5-3-9, the details of which are shown below:—

	Rs. A. P.
3 kachchas (4 kachchas make one chhatak) of the warp at Rs. 13 per seer	0 9 9
9 kachchas of the woof, before bleaching 4 chhataks at Rs. 10 per seer	2 8 0
Bleaching cost	0 1 0
Re-reeling cost	0 6 0
Bobbin making	0 2 0
Weaving charge	1 8 0
Colouring charge	0 1 0
Total	5 3 9

11. One piece of silk cloth (50 inches \times 12 yards) costs as shown below:—

Weight—11 chhataks, before the bleaching operation—1 seer.	
	Rs. A. P.
The warp, $5\frac{1}{2}$ chhataks at Rs. 13-4, twisting charge at Rs. 6= $5\frac{1}{2}$ chhataks at Rs. 19-4	6 10 0
The woof, $10\frac{1}{2}$ chhataks at Rs. 11	7 3 6
Weaving charge	5 0 0
Bleaching materials	0 4 0
Re-reeling charge	1 0 0
Total	20 1 6

12. Buttidar chaddar is gradually being out of fashion—they are a little heavier and their weaving charge is higher—so I am not giving the details thereof.

The cause of decline to the silk industry is due to the decrease of its demand in foreign countries. If one piece of silk cloth is sold at

Rs. 5-4 the weaver gets Re. 1-8 as his labour. But as one weaver, if he be an expert and swift hand weaver, takes 4 days to weave such a piece of cloth from making the warp to the finishing of the cloth, the average daily wages is As. 6 only. But generally now we see that such cloth is sold at Rs. 4-8 to Rs. 5. Now if the weaver gets Rs. 4-8 for a piece of cloth he will get As. 12, deducting Rs. 4-8 from Rs. 5-4, for his labour and it is his earning in 4 days, i.e., As. 3 daily. We think it to be one of the main causes of the weavers' misfortune.

If the protection duty be levied on the foreign and artificial silk, the Indian silk industry can be revived. Though the sale of the finished silk cloths may be a little restricted, but it will not affect the general public because silk cloths are not generally used by the common people for their daily use but they are used occasionally in ceremonies and in luxury.

Extracts from the Report of the Presidency Division, Home Industries' Committee, on the Silk Industry is given below:—

" 1 Silk.

This very ancient industry of Bengal has received a very serious set back during the last 20 years. It has almost ceased to be a commodity of export while the quantity of reeled silk exported in 1804 was as much as 621,710 lbs. Waste silk is exported now to be resold to us in one shape or another at a higher price. The European companies which used to export reeled silk have now vanished and we are now to combat a serious menace of the industry being wiped out of the Province. As a result of our enquiry we have found out the following handicaps in the way of developing and even keeping alive the industry, viz.:—

- (1) Hard competition with foreign market.
- (2) Want of improved machinery.
- (3) Want of sufficient capital.
- (4) Want of market.
- (5) Want of organized effort.
- (6) Want of sufficient State help.
- (7) Use of foreign silk in Berhampore and Bhagalpur Silk Institutions.

To combat these difficulties the following recommendations are made:—

1. The very first thing that we should recommend is the increasing supply of disease free seeds. Of course the Government has some thing in this respect by establishing six big nurseries at (1) Piashbari, (2) Amriti, (3) Berhampore, (4) Komarpur, (5) Midganj and (6) Kalitha and 8 small farms at different places. There are also sericulture schools at Piashbari and Berhampore with stipended pupils. The total cost incurred by Government for the whole Sericulture department amounts more or less Rs. 2,20,000; the income derived from the different farms amounts to about Rs. 70,000. Thus the net expenditure incurred by Government amounts to about Rs. 1,50,000 only. Considering the importance and tradition of the industry this expenditure appears to be extremely small. Supply of disease free seeds should remain a Government concern and should be increased adequately.

2. For organising these efforts to develop the industry it is recommended (a) that one Central Co-operative Silk Union be formed, for the whole province with the Malda Union as the nucleus and branch unions be formed at different centres throughout the province; (b) that besides intensive works in the direction of organising and encouraging cocoon growers and reelers societies—co-operative societies should be formed amongst silk weavers and all these societies be affiliated to the Silk Union.

3. For popularising improved machinery a suitable sum say Rs. 10,000 should be placed at the disposal of the Union.

4. For better marketing facility (a) the Central Depot (for the establishment of which we made interim recommendation) should be fully utilised,

(b) organised propaganda should be carried on through all central and other co-operative banks and institutions by *inter alia* opening a stall at every central bank office on suitable terms.

5. Government be strenuously pressed for subsidy or protection as in other civilised countries.

6. We learn with regret that the Government Silk Weaving Institute of Berhampore is using foreign silk to teach the boys the art of silk weaving on the ground that suitable twisting and preparatory machineries have not yet been installed. We consider such a practice to be a serious menace to the welfare of the indigenous industry and urge that the defects should be immediately remedied by proper installation of suitable machineries. The silk weaving institutes in this country should use only indigenous silk yarns and the use of foreign yarns should severely be condemned. We desire also to bring it to the notice of Government that most of the silk fabrics turned out by Bhagalpur Silk Institute are of foreign silk and suggest that early steps should be taken to put a stop to the use of foreign silk in this institute also."

Mr. Mohamed Jan, Wazirabad.

Letter dated the 10th April, 1933.

I take this opportunity to express my heartfelt thanks for your kindness shown to me at Delhi on February 17, 1933, by granting me an audience and very patiently hearing me pleading for the Indian Silk Industry.

Permit me now to refresh your memory by recapitulating and summarising hereunder some of the more important points so that they may be available for ready reference.

It is an open secret that India is in a deplorable backward state from an industrial point of view. It may be due to negligence on the part of the Government or to want of patriotism and education among its people, nevertheless, it is an undeniable fact.

Our brilliant industrial past is a story long forgotten. To-day we have sunk so low that we have no manufactures, worth speaking of, to export. Even the export of our raw material has dwindled to insignificance. From a Zenith we have come down to this Nadir, and we are now dependent for our smallest daily wants on foreign countries. India has remained oblivious to its future rather too long and in consequence has paid and is still paying a heavy penalty, and it must rouse now or never it shall.

Country's this backward industrial state is self-sufficient to entitle it to demand help for uplift both from its well-wishers as well as from its Government. But as misfortune would have it before these bodies realised their great responsibility in this direction, and the discharge of their all important duty towards this end could have taken a definite and practical shape to any degree of satisfaction, the world was swept with a wide-spread trade depression of unparalleled severity. It has played havoc with many advanced and wealthy countries, and India's already unsatisfactory industrial position, under its influence, could better be judged than described. This change for the worse strongly urges the necessity of a very deliberate scheme for the country's deliverance, and at this critical moment makes the duty of the patriots and the Government even more imperative and more vital than it was previously, to give this affair their immediate and best attention. Government must not forget that any inattention on their part in this respect would have the inevitable result of spreading dissatisfaction in a class of so-far-loyal subjects and of making them readily impressible by anti-Government feelings.

India's industry, in the very few branches of its sphere, is hardly beyond the stage of infancy as yet and it cannot possibly have, in this position, even the remote chance of standing a competition with the mature well-established and well-experienced industry of the outside world. Leaving

to itself, therefore, means wilfully allowing it to die. This course, however, is sure to leave an indelible blemish and irremovable stain on the conduct of both the ruler and the ruled. Hence some how or other it must be kept alive and for this purpose help and protection are absolutely indispensable.

These remarks cannot apply more emphatically or more appropriately to any other line than to silk works.

Our people have no doubt furnished a willing response to the call of supporting local industry in general and that of silk in particular to which the rise in the sale of Kashmir silk, alone, from 65,000 to 200,000 lbs., during the short period of my own canvassing bears testimony. Satisfactory as it may be for use in one direction, it has gone against us in another, *viz.*, in rousing the jealousy of the Japanese and the Chinese Manufacturers. They have foreseen in our silk industry, a serious rival and have made up their mind to annihilate it, not only by fair means, to combat which even is not yet fully within our attainments, but foul ones too. At the time of our sale of 65,000 lbs. the price of Japan and China silk was Rs. 22 per seer of 72½ tolas from which they have gradually come down to Rs. 8-5, as our sale increased and which is below even the producing cost of our factories. As they have needlessly resorted to this price cutting fully knowing that the demand was beyond the capacity of Indian factories and that their sale would be the same whether the rate was high or low, it appears their idea is not sale, but that they have the unholy intention of taking advantage of the country's poverty and to suppress our sales and to maim our industry by offering attractively low prices, probably even lower than their own landed cost, in the way of the well-known business trick. Such tricks from big concerns are bad enough already, but now that Japan Government is up to back Japanese manufacture in this scheme, first by allowing them big subsidies, then by controlling exchange to keep it in their favour, these tactics become ignominious and deplorable in the extreme. Their proposal to checkmate us is very nearly perfect, and had it not been for the greater variety of about a dozen *derniers* produced by our factories as against the 2 or 3 of the Japanese, which obliges purchasers to go in for our productions as well, our factories should have shut their doors long before this. His Highness the Maharaja Bahadur of Kashmir and his Government deserve no small amount of thanks and praise for keeping their silk factories going, even after sustaining a loss of lacs of rupees by this unfair competition, merely to save poor people from starvation.

The Punjab Government silk works at Sujapur, the Amritsar silk works as also the Bengal silk factory have already succumbed to this ignoble scheme and should our Government pay no heed to our solicitations for levying protective duty on silk and silk cloth, the conclusion is a foregone one, *viz.*, the Kashmir and Mysore State silk factories won't take long to follow suit and complete annihilation of this industry shall be achieved, sure and certain, in accordance with the hopes and desires of China and Japan. This shall throw thousands of poor workers out of employment and sink a very big capital to the detriment of the country's financial position, which is not very sound without it either.

Should this very unfortunate event come to pass, India shall sustain a loss which if not totally irreparable shall require half a century's very hard struggle to make it up.

You will thus see that our silk industry both raw and cloth sides, which are quite inseparable from one another, are face to face with a very serious danger and it is up to the Government to afford them help and protection, of which they stand very badly in need more than any other industry does and save them from annihilation.

I am sure the far-sighted Tariff Board and their able President can fully realise the situation and can see the matter through, if any body does and under the circumstances I would humbly solicit that as Patriotic Indian, you should do your level best to help this industry while yet there

is time, prevail upon the Government and have the necessary protection granted.

You cannot possibly do a better service to the country at this juncture.

Vice-Consul for China, Bombay.

(1) *Letter No. 21/33, dated the 8th February, 1933.*

I have been informed that you are at present holding an enquiry into the sericultural industry of India, and to that end have submitted interrogatories to the manufacturers and dealers of silk piecegoods. My attention has also been drawn to an article headed "Raw silk industry in India" and published in the issue dated the 15th January last of one of our dailies "The Bombay Chronicle", wherein the author has tried to show that real cause of the serious decline of the sericultural industry of India is the alleged increased import of silk from China, and has suggested protection of Indian industry by raising import duty on Chinese silk.

To me the above inference regarding the cause of the decline of sericultural industry in India appears to be erroneous and I hereby beg to clarify the situation by expressing my views on the subject which are also supported by my countrymen doing business of China silk in Bombay.

After a careful consideration of facts and figures I have been able to ascertain that the root cause of the decline in the sericultural industry of India lies in the increased import of artificial silk from foreign countries. Before artificial silk piecegoods had gained a firm footing in the Indian market the prices of China silk always remained stable, at the same time the sericultural industry of this country was steadily prospering. The introduction of artificial silk in the market and its sale at exceedingly low prices led to a considerable decrease in the demand for real silk and consequently to a fall in the prices of Chinese and Indian silk. The general public being little appreciative of the substantial advantages of real silk piecegoods preferred artificial silk piecegoods mainly because it is sold at a much lower price. This principal cause combined with other subsidiary causes such as political unrest, world-wide economic depression, etc., has led to the decline in the sericultural industry of India.

The ill-effects of the introduction of artificial silk were not only restricted to this country. In my own country the industry suffered a good deal, in fact much more than it suffered in this country. Referring to the magazine of Shanghai Chamber of Commerce, Volume XII, No. 4, dated the 30th April, 1932, I find that in 1931 the quantity of raw silk produced in China was only three-fifths the quantity produced in 1919. Countless worm feeders gave up their plantations of mulberry trees in favour of others. More than half the number of filatures and silk piecegoods factories closed down and still continue closed in Shanghai and Canton.

Throwing a glance at the import figures one can easily see that there has been no sudden or unprecedented increase in the import of silk from China. The highest figures in recent years are 2,356,000 lbs., 2,131,000 lbs. and 2,175,000 in 1927-28, 1928-29 and 1929-30 respectively but they have several times been nearly equalled or exceeded in the former years. Moreover the figures 1,940,000 lbs. of 1930-31 and 1931-32 show a marked decrease in import. In recent years the quantity of import has been ranging from 1,300,000 lbs. to 2,300,000 lbs., sometimes more, sometimes less, and it was more or less the same in former years. Even the fall in the value of tael in 1930 did not result in increased import as might have been expected but on the contrary was followed by a marked decrease.

Our respective countries have been doing business with each other for a very long time. China imports into India every year on an average 10,000 bales of superior and inferior raw silk each bale weighing about 133 lbs., whereas on the other hand India imported into China in 1931-32 no less than 600,000 bales of cotton each bale weighing 400 lbs. Thus comparing

the export of cotton from India to China with the import of raw silk from China to India, I observe that the former is much greater than the latter in quantity and value.

I hope the above information may prove useful to you for the purposes of your enquiry.

(2) *Letter No 37/33, dated the 31st March, 1933, from the Vice-Consulate of China, Bombay, to the Secretary, Tariff Board.*

I have the honour to acknowledge receipt of your letter dated the 27th instant. With reference to your inquiry regarding the amount of compensation I have the honour to inform you that for every 100 Kins (equal to about 125 lbs.) of silk hypothecated a compensation of 100 Taels was awarded by the Chinese Government to the Banks. I cannot say how long the subsidies continued to be granted.

I have the honour to state further for your information that the aforesaid compensation was awarded only to merchants carrying on business in the districts of Kiangsu and Chekiang and not in other parts of China. It may be of interest to note that the bulk of silk merchandise imported in the town of Bombay comes from the district of Canton.

Commercial Counsellor, Shanghai.

Telegram.

No export duty is charged on silk, silk products or silk mixtures bounty of 100 dollars per bale on raw silk registered before January last is payable to dealers on exports from Kiangsu and Chekiang provinces up to 31st May but may be extended.

Rajakaryapravina Mr. P. G. D'souza, Retired Member of Council, Mysore State.

Memorandum.

India is not self-dependent at present as regards raw silk.—India has been noted from time immemorial for the exquisite character of its textile fabrics. Much of the silk cloth worn by natives of India has been produced from Indian silk and manufactured by Indian workmen. Owing to the influence of Western ideas there has been a steady increase in the use of foreign fabrics but still a large portion of the silk goods consumed in India are manufactured in India.

The demand for raw material is, however, so great that the Indian production of silk is not sufficient to meet the requirements of its weavers and apart from the increasing importation of ready made fabrics there has been an increase in the importation of raw silk also.

2. *Steady decrease in Indian production notably Mysore.*—The total consumption of silk in India is about 4 million pounds of which about 50 per cent. used to be imported from abroad. Mysore alone produced nearly 1½ million pounds from 1925-26 before the present setback of which about 900,000 lbs. was exported to places in British India. The imports of foreign silk almost entirely from China prior to 1925-26 was about 1½ million pounds and from the indications of imports this year already more than 2 million pounds have been imported during the first seven months of the year. The exports from Mysore into British India have decreased by more than 50 per cent. while the imports have similarly increased. There has been no perceptible increase in the quantity of silk fabrics made in the State which clearly shows that the competition of foreign silk has naturally affected production in Mysore.

3. *The only condition for the silk industry to survive is to keep the price at a level which assures to the industry the same rate of profits as the most profitable commercial crops.*—The price of raw silk in India cannot be viewed at entirely from a competitive standpoint taking the level of prices in other countries as there are many local factors that influence the prices. Raw silk is produced in India in three different parts, Bengal and Assam, Kashmir and Mysore. The silk industry is of very ancient date in Bengal but due to the competition of other crops such as jute, the natural inferiority of the silk and the existence of various diseased conditions, the industry has been steadily declining. Kashmir represents a remarkable example of what State initiative and effort can do for establishing a new industry. The mulberry trees are owned by the State. The seed is imported and supplied by the State. The cocoons are reared under State supervision and purchased at a fixed price. The reeling is also done by the State. These conditions have not proved to be ideal to produce the best results and in spite of various advantages the actual cost of production seems to be higher than in China or Japan or Italy.

In Mysore the silk industry has reached a very high standard and owing to special efforts by the State disease has been greatly eliminated. Both the quality of cocoons and the production have greatly improved. These conditions would have naturally resulted in a great expansion of the industry but for the fact that its growth has been arrested in recent years by the competition of foreign silk.

4. *Statistics of production: Steady decrease under mulberry area which actually is much greater than what is shown by the figures as a good deal of the leaf is not utilised.*—The only reliable statistics that we have in regard to the production of silk are (1) area under mulberry cultivation, (2) exports by railway of raw silk from the State. Even as regards the area under mulberry cultivation this is fixed by the village officials in the same manner generally as the areas under various crops and the figures are subject to the same criticisms as the figures for other crops. Besides when the prices are low some of the leaves will not be utilised at all and we cannot therefore treat this as a conclusive proof of the actual area used in feeding silk-worms. According to the figures given in the Season and Crop Reports the area in 1925-26 in Mysore was stated to be 48,000 acres. In 1930-31 the area is stated to be only 42,000 acres.

5. *Exports show a decrease of more than 40 per cent. in Mysore alone for the past 3 years.*—The figures of exports, however, which are registered more accurately are a better idea of the decline in the production that has taken place due to the competition of foreign silk.

	Quantity.
1928-29	619,650 lbs.
1930-31	383,440 „
1931-32	367,440 „

Prior to 1926-27 the exports exceeded 800,000 lbs. As regards the Kollegal Taluk the only part of British India where silk is produced to an appreciable extent the decrease is even more marked. Owing to the continuous fall in prices the profits from the production of silk having regard to the numerous attendant risks have steadily decreased and as compared with the return from other crops grown on the same class of land are comparatively less even taking into account the fall in the general level of prices of agricultural crops.

6. *Minimum rate of profit required to make sericulture a profitable occupation: The actual cost of mulberry on the basis of the present abnormal prices is about Rs. 3 per lb. and other charges for rearing cocoons and reeling silk being equal, the industry requires a minimum price of Rs. 6 per lb. of raw silk and Rs. 7-8 per lb. of filature silk.*—Mulberry is grown in the State partly as an irrigated crop and partly on dry lands. In the neighbouring parts of British India, viz., the Kollegal Taluk it is grown mainly as a dry crop. Mulberry grown on irrigated land should in order

not to be displaced by other more profitable crops yield the same rate of profit as other crops grown on such lands such as sugar-cane, potatoes, vegetables, etc. In the Mysore State in very few localities are all the operations carried on by a single person, that is, the cultivation of mulberry is done by one person, the supply of seed by another, the production of cocoons by a third and the reeling by an entirely different set of persons. In many places some of the operations are combined but it is rare to find one person carry them on all together. This sub-division allows of the profits from the various stages to be observed carefully. It is easy therefore to compare profits from the cultivation of mulberry and other crops which can be grown on the same land. I examined the value of the gross yield from the various crops some five years ago and at that time it was usual for one acre of mulberry to yield a gross return in the value of leaves of about Rs. 310 on irrigated land of good quality with a high standard of cultivation. It may also be stated in this connection that mulberry requires as much attention and capital as any other irrigated commercial crop and the average standard of cultivation of such lands is usually high. Even granting that prices have now fallen nearly 40 per cent. unless the mulberry yields about Rs. 180 per acre there is no inducement for the raiyat to grow it. Then there are other expenses connected with the subsequent operations such as the purchase of seed, the rearing of worms and reeling them, the value of which is at least equal to the cost of mulberry. It is true that the raiyats usually raise at least 7 crops of cocoons by using mulberry leaves on irrigated lands but due to various causes it is not safe to rely on their getting all the crops. In order to make the production of silk sufficiently profitable the ultimate value of the silk produced by using mulberry leaves from one acre should be at least between Rs. 350 to Rs. 400 according to present prices. Taking the average yield of cocoons the total quantity of reeled silk that can be produced by using the leaves on one acre of mulberry is about 50 to 60 lbs. at most taking all the crops together, that is, any price below Rs. 6 or 7 per lb. of reeled silk is an uneconomical price as far as what is called country silk, *i.e.*, silk produced by the Villager is concerned. In the case of filature silk the cost has to be added to at least by one and a half rupees per pound.

In the case of silk produced by using mulberry leaves on unirrigated land a similar figure can be deduced. These unirrigated lands contain soil of high quality and ordinarily 2 crops are taken one of cholum and one of oil seed. In areas in which silk production depends on such lands it has to be confined to the monsoon months and a few months thereafter. Only 4 crops of cocoons can be taken and as the total value of the jola and the oil-seed may be about Rs. 70 per acre the yield from mulberry should not be lower than this.

The cost of cocoons is therefore determined in the first place by the cost of mulberry leaves which is dependent upon the comparative profits to be derived from other commercial crops and the cost of rearing silk-worms and reeling the cocoons. As I have stated on irrigated lands the value of mulberry leaves under present conditions cannot be less than Rs. 180, *i.e.*, to say the actual cost of mulberry leaves comes to about Rs. 3 per lb. of raw silk. The other charges before the silk is reeled are at least equal to the cost of the mulberry leaves, *i.e.*, taking the present rates of agricultural prices the silk industry is doomed unless the persons engaged in the industry are assured of a return of at least Rs. 6 per lb. which should rise when the present abnormal low prices of agricultural produces regain their level.

There was a time when the reeler of silk used to make a substantial profit by the sale of silk waste but owing to very low prices this additional source of income has almost practically disappeared.

7. *Cost of rearing silk-worms reeling, etc.*—One acre of irrigated land gives about 40 mds. of cocoons or 70 lbs. of silk. The quantity of seed required per acre for 8 crops will be 4,000 disease-free layings costing Rs. 40. The time required per crop is 35 days and 3 persons have to attend to this.

least 4 annas per day for wages, i.e., Rs. 8-12. The cost of reeling amounts to Re. 1-4 per lb., i.e., for 60 lbs. it will be Rs. 75, i.e., the actual cost of production of silk (60 lbs.) exclusive of mulberry is Rs. 123-12 but if allowance is made for spoilage of crops it may be safely assumed that the cost of production of silk is equal to the cost of mulberry.

8. *Need for more filatures.*—The standard of silk cloth produced in India cannot be raised unless the standard of reeling is raised. This cannot be done so long as the primitive method carried on by the country reeler continues. Under the most efficient conditions the actual cost of reeling silk in filatures based on the experience of established concerns is about Rs. 2-8 a lb. The capital required is fairly large and the silk waste though of better quality is also large thus reducing the actual quantity of raw silk substantially. Then there are the other charges due to the running of factories. The minimum price at which silk can be sold at a profit at present cannot be below Rs. 8 a lb. The price of cocoons does not fluctuate according to the demand but when it falls below the margin of profit the raiyat merely ceases to produce them and the mulberry is rooted out and another crop raised.

9. *Alarming decline in the industry due entirely to foreign competition necessitating immediate protection.*—If statistics relating to silk production are examined over a fairly long period say about 15 or 20 years they will be found to yield several interesting results. Till about 1915 the area under mulberry was steadily contracting due to existence of disease among the worms and other cocoons. Since 1918 till 1926 there was a steady increase in the area under mulberry due partly to decreased imports and good prices but since then the production is steadily decreasing and for the past 3 years the decrease is almost alarming as owing to the competition of Chinese silk. Silk-worm rearing itself is ceasing to be remunerative. Indian silk has been holding its own to a certain extent due to the fact that as far as Mysore silk is concerned the South Indian weaver is prepared to pay a somewhat higher price for it on account of its superior quality and a preference on the part of certain customers for fabrics woven with it but these advantages are steadily disappearing owing to the increased competition of China silk and its use largely by weavers formerly working on Mysore silk.

10. *Imports of foreign silk.*—The imports of foreign silk into India have risen from 1,325,364 lbs. in 1925-26 to 2,175,239 lbs. in 1930-31. There has been some decline in 1930-31 and 1931-32 but this is not due to an increase in production of Indian silk but merely the general depression of trade. How the great fall of prices stimulates the importation of foreign silk will be evident from the fact that for the seven months of the current year the imports have already reached the figure of 2,144,553 lbs.

11. *Argument against increase of duties 50 per cent. of our present Indian requirements are supplied by the Indian production. Both in tracts where the industry is localised and in other parts of India the scope for development is great. Industry readily responds and adjusts itself as demand increases.*—The chief arguments that will be advanced against further increase of duties on imported silk are (1) the Indian production is not able to satisfy even 50 per cent. of the total demand for silk in India; and (2) protection is not likely to cause such development in production as to meet this demand satisfactorily. It is true that there has been a steady decrease in the production of Indian silk during the past three years. This fact more than anything else emphasises the necessity for the immediate adoption of measures to prevent further reduction in the production of silk which is due entirely to fall in the price of silk. Any immediate improvement of prices is likely to stimulate production of raw silk to a greater extent and if the present feeling of depression and uncertainty in regard to the prospects of the industry is replaced by one of confidence there will naturally be considerable development. Silk is after all an article of luxury. The users of silk should be called upon to make some sacrifices to save from extinction an important industry the benefits of which in the long run will

be enjoyed by them alone by putting an end to our dependence on foreign supplies and increasing the resources.

The scope for expansion of production of silk specially in Southern India is very great. It is now practically confined to Mysore and the adjacent parts of British India in the Coimbatore District not because other parts of the Madras Presidency are not suitable but it is an instance of an industry getting localised and ceasing to spread as no special measures have been adopted to improve it. It is also unfortunate that as it exists in an Indian State its importance from the stand point of British India has been inadequately appreciated. If proper measures are adopted to supply the raiyats with disease-free seed in suitable localities even outside the State, train them to rear worms and make arrangements to reel the silk, giving some assurance to the raiyats in the initial stages against losses there should be no difficulty in steadily increasing production. Having regard to the large number of people such an industry is relatively capable of employing and its prominent position as a cottage industry it has a strong claim on the special attention of all Governments wherever there is scope for it. Even in areas in which the industry is localised at present the scope for expansion is such that the India requirements can be supplied therefrom. India is the only part of the British Empire which offers the best facilities for silk production and by proper attention to the development of the industry not only can India be expected to supply its own requirements but also meet at least a portion of the requirements of the British Empire elsewhere. The present backward condition of the industry is due to the fact that owing to the unsteadiness of the Indian demand and the fall of prices its importance is not adequately appreciated and the industry is such that it will readily respond to scientific methods of development.

12. *Principles relating the basis of the duty.*—As regards the rate of duty it should be fixed in my opinion on a basis which is likely to give persons engaged in the industry at least the same rate of profit as is derived by persons engaged in the production of commercial crops after covering the actual cost of production of cocoon making allowance for special conditions relating to the industry and the cost of reeling. The actual cost of mulberry I have shown above according to present rates cannot be less than rupees three per lb. of raw silk produced the price of which therefore, cannot be less than Rs. 6 which has to be increased as soon as the present abnormal condition of prices disappears. For filature silk at least 35 per cent. more has to be added. But this extra cost is counteracted by better results in weaving and better prices for the manufactured articles.

13. *In Japan and China silk is the most important primary basic industry which the State maintains at all costs for the benefit of the people and when such measures threaten an industry in India Government is bound to interfere.*—It may be asked why if countries like Japan and China can produce silk at lower prices should the industry be bolstered up in India by heavy protective duties. The extraordinary advantages that Japan possesses for flooding Indian markets with all sorts of goods at prices calculated to imperil the most efficient industries in India are well known. Sericulture is organised in Japan on the most efficient and up-to-date lines and receives every assistance from the State. Special efforts are made to maintain the highest possible standards. These factors will give Japan an advantage under any conditions. When additional assistance is given to it in the shape of a depreciated currency countries invaded by its goods have no chance unless in devising protection some means are found to counteract these factors. Hitherto raw silk imported into India was wholly from China and not from Japan but I understand that recently considerable quantities of raw silk have already been put into the market from Japan. It must also be borne in mind that both in Japan and China sericulture is an essential industry that is to say a regular established occupation for the bulk of its people which has to be carried on to provide them with a means of living whatever be the conditions and the State is bound even if the industry ceases to be profitable to keep it on by means of subsidies, etc.,

if necessary to prevent wholesale economic class. The abolition by the Chinese Government of an export duty which used to be about 20 dollars or more per bale of silk exported from the factory recently shows how keenly alive they are to the need to continue the industry at all costs as this is hardly the time for any Government to lose an existing source of revenue. This is a factor that is not sufficiently taken into account in helping the people of India against unfair competition. Indian silk has no chance against Chinese or Japanese silk firstly as the industry is most efficiently organised in these countries, is an unreplaceable occupation of the people which has to be carried on to avoid national disaster irrespective of profit, kept on by subsidies and having at the present moment an additional advantage on account of the depreciated currency of the countries concerned. What China and Japan are doing to maintain this industry is the strongest justification for special help to the silk industry in India.

14. *The industry satisfies all the conditions required for protection as the steady expansion that will result will eventually reduce the cost of production.*—It may also be pointed out in this connection that the need for special protection for the industry is not of a permanent character. In the first place as soon as it is found that the industry can be carried on in a profitable manner it will immediately stimulate expansion and lead to a check of some of the wasteful methods incidental to an industry constantly in a state of uncertainty. It will also lead to more economies in production. By supply of disease-free seed to a greater extent help to the raiyats to overcome the causes that lead to loss of crops and bad results, some financial facilities by means of co-operative societies and otherwise the establishment of up-to-date filatures and better marketing facilities dissemination of scientific methods combined with greater research it will be possible in course of time to bring the cost of production to the level of China or Japan.

15. *Present tariff valuation unfair.*—Another circumstance that affects the silk industry seriously is the Tariff valuation. While Indian silk is more or less of one quality except Bengal silk, Chinese silk specially is of several qualities. The existing methods of valuation give a special advantage to those classes of silk that compete with Indian silk. It is also necessary when devising a system of tariff to adjust it automatically to the price of foreign silk so as to bring up the price of raw Indian silk to its actual cost of production with a reasonable margin of profit which can be fixed with some certainty over fairly reasonable periods of time.

15. *A part of the income derived from the duties should be ear-marked for protection of the industry, scientific improvement and research.*—More protection will not help the industry. A substantial part of the income derived from additional duties should be applied to the development and improvement of the industry itself. The measures now taken are on too small a scale and the scientific knowledge brought to bear for the purpose does not seem to me to be adequate. There should be more up-to-date filatures. In the initial stages they should get liberal financial assistance from Government and in course of time some system of conditioning should be introduced.

16. *A mill should be established for spinning silk-waste.*—The silk-waste that used to form a substantial part of the profit of silk reeling in India is now practically a waste product. Large quantities of spun silk are imported into India but these can be produced in India itself. Besides creating a new industry it will enable the silk reeler to add a little to his meagre profits.

17. *Simultaneous increase of duties on manufactured silk.*—At present more than 2 million pounds of silk are imported from foreign countries while the imports of silk goods are valued at about Rs. 2 Crores.

Side by side with checking the imports of raw silk steps should be taken to provide facilities for the production in India of silk goods that are now imported from abroad and this necessitates an increase of duties on silk.

goods also. It is true that some of the more costly fabrics now imported are not manufactured in India to any great extent but it is evident that it is possible to manufacture them on a commercial scale and one of the future natural developments will be the manufacture of such articles if some initial protection is given.

Mr. M. N. De, Bhagalpur.

Letter No. 877/XIX-1, dated the 31st March, 1933.

I have the honour to enclose a copy of my replies to your questionnaire on silk for your kind perusal.

Enclosure:

1. In Bihar and Orissa there are at present about 40,000 tasar rearers, 1,000 eri rearers and 50 mulberry rearing families. The earning of tasar rearers is about 6 lacs of rupees per annum. The eri rearers earn about Rs. 10,000 and the mulberry rearers about Rs. 7,000.

Tasar is cultivated in Singhbhum, Manbhum, Palamau, Giridih, Sonthal Perganas, Bhagalpur, Monghyr, Sambalpur, Ranchi, Mayurbhanje State, Sonapur State and Dhankenal State.

Mulberry is reared on a small scale in the Purnea and Balasore Districts.

Eri is reared in Cuttack, Angul, Purnea, Puri, Bhagalpur and Sonthal Perganas Districts.

- (1) (a) No one is entirely dependent upon silk-worm rearing.
- (b) About 42,000 people partly depends upon this industry.
- (2) (a) About 5,000 women entirely depend upon tasar reeling.
- (b) About 7,000 women partly depend upon tasar reeling.

2. *Tasar*.—Santhals, Kols and other aboriginal tribes pay royalties of Re. 1 per head to the Government for allowing them to rear and collect tasar cocoons from the jungles. They generally sell the cocoons to middlemen who take them to the Mahajans. The Mahajans dispose of the cocoons in the market places to weavers. Women generally reel and spin the cocoons and men weave the thread into cloth. They generally take advances from the merchants or master weavers and are therefore bound to accept for their finished goods which the latter dictate. The merchants thus sweat the weavers. They put the cloths in the market and take the lion's share of the profit. There is no proper organisation for distributing these fabrics.

Mulberry.—Women generally rear the worms indoors and the cocoons are sold to the merchants of Bengal. There is no arrangement for reeling the cocoons in the Purnea District. In Balasore there are few reelers who reel the cocoons in crude machines and turn out non-uniform thread. The thread is taken to Bengal for sale. Seeds are imported from Bengal.

Eri.—The eri rearers generally get their eggs from Bhagalpur Silk Institute. Some rear, spin and arrange to weave the thread into cloth locally but the majority rear the cocoons which they cannot dispose of even at a cheap rate.

3. About Rs. 6,00,000 worth of tasar cocoons are annually produced nowadays. It is a precarious industry as rearing is done out of doors. The aborigines who generally rear these worms can double the production if the price is increased and facilities are given for their disposal in a profitable market, if royalties are removed and if good seed cocoons are supplied to the rearers.

About Rs. 10,000 worth of eri cocoons are produced annually. This is a new industry in the Province. The production can be increased 100 times

or more if arrangement can be made for their disposal. The climatic conditions are suitable for the healthy growth of these worms from June to March. The food plant castor grows in abundance in the Province. There is unemployed labour and the worms are hardy and can be reared by unskilled labour. No special rearing room is essential for rearing. In Bihar and Orissa there are about 44,000 acres of land under castor.

About Rs. 7,000 worth of mulberry cocoons are produced in the Province. The production cannot be increased much under the existing conditions as many are giving up the rearing as they cannot sell them.

4. From one maund of local green mulberry cocoons 3 seers of raw silk are obtained whereas from the same quantity of Japanese or Chinese cocoons 5 seers of raw silk are produced.

There was no filature worth the name but many reeling basins have been stopped for want of mulberry cocoons.

5. Tasar, eri and mulberry worms are reared.

The food plants of tasar are Arjun, Asan and Sal (*Shorea Robusta*) plum and some other trees. These grow wild in the forests. The aborigines generally rear tasar. They pay a royalty of Re. 1 per head for permitting them to rear tasar. They pollard the branches about 2 months prior to rearing. On the 5th or 6th day after oviposition the eggs are kept on a cup of leaves and taken to the food plant, on the 7th day when the worms hatch they crawl on the leaves and feed on them on the trees. They are reared out of doors. When the leaves of the tree are exhausted the worms are transferred to a new tree with the branches. This is continued for about 55 days when the worms mature and spin cocoons after casting off their skeins four times. People generally watch the worms and protect them from insects, wasps, birds, flies and other enemies. The cocoons are collected on the 5th day or 6th day after maturity. Three or 4 broods are taken in a year and the trees are pollarded for rearing every two years.

In June or July after the fall of monsoon tasar moths come out of the seed cocoons kept in the house of rearers. Males are allowed to fly away as they do not pair in captivity. The females are tied by means of thread on a tree or on bamboo ends. Wild males from jungles visit them at night and pair. The fertilized moths oviposit about 150 eggs next day. These are collected and kept in an earthen ware vessel.

The eri rearers generally get their eggs from Bhagalpur Silk Institute. Some rear, spin and weave the thread but majority rear the cocoons which they cannot dispose of even at a cheap rate. Rearing is done indoors on bamboo trays. The worms cast off their skeins four times like mulberry. They mature in about 17 days. The ripe worms are kept in a basket containing mango leaves where they spin. The cocoons are collected after 5 or 6 days and the moths come out of them on the 16th day after maturity. Males and female moths come out of the cocoons in 2 or 3 days. They are allowed to pair and oviposit. Each female lays 250 eggs. These eggs are reared.

In the case of mulberry seed, cocoons are imported from Bengal. The moths are allowed to come out and pair indoors for six hours. Each female oviposit about 300 eggs on the same day at night. These hatch about 7 days after oviposition. They are fed indoors on bamboo trays. The worms cast off their skein 4 times in the caterpillar stage. They mature in about 18 days. Then they are collected and put on the spinning trays, where they spin cocoons. These cocoons are generally sold before or after stifling in the sun. Some reel them into thread and sell the same.

6. (a) For eri and tasar no special houses are required. Mulberry worms are reared in ordinary houses. The rearers are too poor to construct special houses for rearing. Sleeping or other rooms are converted into rearing rooms.

The rearing appliances are renewed after 7 or 8 years. The rearers should try to make the rearing appliances themselves.

(b).

Race or Variety.	No. of days.	No. of cocoons to a lb. Green.	Length of filament. Feet.	Deiner.
Mulberry . . .	17	600	1,500	1½
Tasar . . .	50	48	3,000	5
Eri . . .	18	200	Not reelable.	

7. In foreign countries rearing rooms are airy and ventilated. The worms are kept less crowded. Nets or perforated papers are generally used for cleaning the silk-worm beds whereas the local people do without them. In foreign countries fire is applied to keep a constant temperature as far as possible. The local rearers do not apply any heat even in mid winter.

8. Worms reared from local seed. The mulberry rearers import seed from Bengal and from the Bhagalpur Silk Institute where special care is taken. Female moths are microscopically examined and eggs of healthy mothers are kept for distribution and reproductive purposes. All the precaution adopted in foreign countries in the reply to questionnaire No. 7 are adopted. For rearing one oz. of eggs about Rs. 25 are spent in labour alone but female members of the family generally rear the worms.

9. The worms are multivoltine. Three or four broods are taken in one year.

An ounce of mulberry eggs produces 60,000 worms.

An ounce of eri eggs produces 16,000 worms.

An ounce of tasar eggs produces 5,000 worms.

About 120,000 oz. of tasar eggs are reared.

About 1,250 oz. of eri eggs are reared.

About 400 oz. of mulberry eggs are reared.

10. Mulberry leaves are used for rearing mulberry worms. Mulberry is generally cultivated in his own land by the man who breeds. He sells leaves if he cannot rear himself for same reason.

The cost of initial cultivation per acre is about Rs. 80 per acre and the annual recurring expenditure is about Rs. 60 per acre.

The land is first tilled, hoed, manured and levelled. 8 to 12 cuttings of 9" each are planted in one hole and is then covered. These are put at a distance of 36" in rows at a distance of about 27". Weeding and hoeing are generally done once every month. There is no arrangement for irrigation. The work is generally done by the cultivators and their neighbours and relation.

Cowdung manure or green manure obtained from the water weeds grown during the rains and decomposed in winter is generally applied. About 100 cart-loads per acre are generally applied. 200 maunds of leaves per acre in a year are produced. The average yield per bush is 5 seers.

Tree mulberry is grown in the Balasore district in the homestead land. There is no regular plantation. They are planted on the boundary and for fencing at a distance of about 15 to 20 feet. From one tree on average about 15 seers of leaves are obtained.

The bush lasts for about 30 years and tree for about 40 years or more.

An ounce of eggs requires about 18 maunds of leaves. The cost of these leaves to the breeders comes to about Rs. 10.

Eri worms are fed with castor leaves grown in the homestead land. Tasar worms are fed with Arjun, Saj, Jeol, Sal and other kinds of leaves grown in the forest.

11. Mulberry is cultivated by the breeders themselves and the land is not irrigated.

12. As the margin of profit is very small the cultivators try to do all the work themselves.

13. About 10 to 15 per cent. of the worms die. Sometime the whole brood is swept away. The former is due to accidental causes and diseases, like gresserie and flacherie and the latter is due to bad seed pebrine and muscardine diseases, excessive heat and rain if continued for a long time.

14. Worms suffer from pebrine, muscardine, flacherie and gresserie diseases.

The rearing room is washed, the appliances are washed and dried in the sun. Disinfectants like sulphur and copper sulphate are sometimes used. Healthy seed cocoons are imported from distant localities.

15. The climatic conditions are suitable from July to November and February and March.

16. 30 seers of green cocoons per 1 oz. of eggs are generally obtained.

17. The cultivators generally do the work themselves.

18. The cocoons are sold and seed cocoons are obtained from Bengal.

The price of one maund of cocoons is Rs. 22 while the price of seed cocoons is about Rs. 35 per maund.

19. The breeder sells his cocoons at once. A little well to do breeder keeps for better days.

The average price per maund varied from Rs. 35 to Rs. 22. Very little reeling is done.

20. There are only 2 or 3 reelers in the Balasore District.

21. One woman reels about 2 chittaks of tasar in one day on hand reeling machine. From 600 tasar cocoons 1 lb. of raw silk is obtained and the waste will be about $\frac{1}{4}$ th lb. Tasar is always reeled on hand reeling machine.

22. The initial cost for reeling tasar costs only 4 or 5 annas. One woman reels $\frac{1}{4}$ th lb. per day. The earthen vessels lasts for two months and the Natwa on which reeling is done lasts for about 8 to 10 years.

23. Very little mulberry is reeled.

26. A filature should have at least 50 basins. An approximate estimate is enclosed.

27. 20 basins are generally considered economical in Japan.

28. Exact figures of each year not available. Please see reply to questionnaire. The cost for setting up such a filature is about Rs. 24,000.

30. (ii) The rearers are skilled and they can hold their own if they get healthy seed in time provided they can dispose of their produce.

The reelers use crude machinery and the reeled thread does not fetch more than 6 or 7 Rs. per pound whereas foreign raw silk of better quality sells for Rs. 8 per pound. The former cannot dispose of their produce at a profitable market.

(iii) There is only one Institution where reeling, spinning and rearing are taught.

31. Does not occur.

35. Eri cocoons and tasar waste are spun into thread. The cocoons are boiled in soda and water for 2 hours, then they are washed and dried in the sun and spun into thread on the charkha or spindle. Tasar waste is directly spun without boiling. Recently tasar waste is being spun into very coarse thread by the Central Jail of Bhagalpur.

37. Besides weaving apparels raw silk is used for tying ornaments and embroidery.

38. (1) The total Indian demand is about 4 million pounds.

(2) The total Indian production is about 2½ million lbs.

39.

Year.	Exports from Indian	Cocoons.	Waste.
	Raw silk.		
	lbs.	lbs.	lbs.
In 1923-24	191,301	127,024	1,301,242
1924-25	150,956	169,633	1,325,837

Statistics regarding the quantities used locally not available.

40. Does not occur.

45. The Indian weavers generally use the following imported silk:—Raw silk, noil yarn, spun yarn. All these compete with different kinds of Indian silk.

46. The price of imported raw silk and spun silk has come down on account of depreciated exchange, e.g., a bundle of 140/2 spun silk containing 11 lbs. of yarn used to sell at Rs. 58 some 18 months back but it is now being sold at Rs. 48-12. Bounties, subsidier or other artificial circumstances may have helped the importing countries to lower the price.

Competition from foreign countries will increase in the future owing to the exchange factor.

49. Chhoi Silk Mill and Sassoon Mill of Bombay import silk-waste, quantity not known.

50. There are two waste silk spinning mills at Bombay. Cawnpore Woollen Mill used to import tasar waste from Bhagalpur probably for mixing it with wool. Recently rough yarn is being spun in the Bhagalpur Central Jail from tasar-waste. The above two mills spin inferior yarn in small quantities.

About 6 or 7 lacs of rupees are required for starting a spinning mill.

Want of knowledge and enterprise seem to be the cause of not starting a decent spinning mill.

51 & 52. Mortality in the worms due to bad seed used by the rearers.

Non-disposal of the cocoons at a profitable price.

Refusal of the weavers for buying inferior raw silk produced from the cocoons grown by the rearers.

Want of market for the Indian raw silk.

Import of cheap raw silk, spun silk, noil yarn, artificial silk and mercerised yarn.

Decrease of the buying capacity of the people.

Economic depression.

Depreciated exchange.

Mortality in the worms is not an important factor. The industry will be greatly benefited if the import is stopped and if arrangement is made for the disposal of the raw silk.

53. The causes of the present decline seem to be a permanent factor. The rearers are giving up rearing and if it goes on it will be difficult to revive the industry.

54. Production has decreased and waste-silk is inferior and hence the price of export has decreased. The export market will come up if the quality is improved.

55 & 56. Fiscal Commission Report not available.

56. (a) The industry possesses natural advantages. There is an abundant supply of raw materials, cheap and sufficient supply of labour, cheap power in Mysore, Bangalore and other places and a large home market.

(b) The industry is not likely to develop without the help of protection.

(c) Yes.

57. (a & b) The duty on imported raw silk, noil and spun yarn should be raised by 90 per cent. in the case of yarn and 110 per cent. in the case of finished product.

(c) For 10 years for the present, by the Tariff wall very little silk will be imported in India. The weavers will buy the local produce. The price of local cocoons and raw silk will increase. Some enterprising capitalist will start a decent spinning factory. The price of the silk stuff will increase. The weavers will suffer a little in the beginning. The consumers will no doubt have to pay a high price for the country silk but all these difficulties will be removed soon.

58. The weavers will gradually use country silk for which there is an abundant supply.

(b) Handloom weavers will be better off than others as the former can utilize country silk and the factory owners find it difficult to use Indian silk. The factory owners will earn less and the handloom weavers will make more profit. The general condition of the rearing and weaving population will improve and with it their purchasing power will increase. The handloom cotton weaving industry may prosper.

59. The twisting charge comes to As. 12 per pound.

60. Yes. The reelers will be able to improve the quality of their silk for which there will be ready market. At present they do not care to improve the quality as they do not get good price. The price of inferior raw silk is cheap enough now.

If big filature are started then the cost of production will decrease otherwise not.

(1) 5 to 10 per cent.

(2) Overhead charges will be less.

(3) There will be more division of work, the production will increase and the overhead charges will decrease thereby.

Imperial Institute of Agricultural Research, Pusa.

(1) *Letter No. 2/B, dated the 18th December, 1932, from the Tariff Board to the Director, Agricultural Research Institute, Pusa.*

PROTECTION TO THE SERICULTURE INDUSTRY.

I am directed to say that the Indian Tariff Board has been asked to investigate into the question of protection to the Sericultural Industry. It is understood from the report on an enquiry by Mr. Maxwell-Lefroy and Mr. Anson that your Institute has been doing certain research work in connection with this industry and that your Institute had taken up the cultivation of eri silk in 1907. The report further states that many of the agricultural departments in Provincial Governments have tried to imitate your designs and methods and that the Pusa spinning machine is in use in many places. I would like you to send me a detailed note as to the work that your department has done in the past and what has been achieved at present. The report states that a trial was made at your place of teaching sericulture. I would like to know whether the teaching department is still at work and what has been the result of it.

(2) *Letter No. 517, dated the 25th January, 1933, from the Director, Imperial Institute of Agricultural Research, Pusa.*

Subject :—PROTECTION TO SERICULTURAL INDUSTRY.

In reply to your letter No. 2/B, dated the 18th December, 1932, I have the honour to enclose a note on the work done at this Institute on seri-

culture from 1907 to 1921. In 1922, the work was transferred to the Sericultural Institute at Nathnagar, Bhagalpur, started by the Department of Industries, Bihar and Orissa, and the Pusa Institute has since then taken no active part in sericultural development.

Note on Sericultural Operations carried out at Pusa.

A Sericultural Section was created temporarily at Pusa in 1907 and was continued till April, 1922. When the pioneer work was thus completed the staff together with the apparatus, etc., was transferred to the Department of Industries in Bihar and Orissa which had started a Sericultural Institute at Bhagalpur. The work in the section was conducted chiefly on the following lines:—

- (1) Cultivation of eri-silk and its demonstration as a cottage industry in the plains of India where castor is grown.
- (2) Improvement in mulberry silk-worms.
- (3) Diseases of silk-worms and mulberry.

(1) *Cultivation of eri silk.*—The cultivation of eri silk was taken up in 1907 with a view to investigate to its possibilities in the plains of India. A silk house was established and eri worms were reared under the conditions of a cottage industry. The work soon yielded promising results and attempts were made to demonstrate the possibility of eri-culture in various parts of India. Disease-free eggs were supplied to enquirers bulletins giving practical instructions were published, demonstrations were given in exhibitions and arrangements were made to train students in the art of eri-culture (altogether 100 students were trained at Pusa). As a result of this work considerable interest was aroused and large quantities of eggs were distributed yearly from Pusa to applicants in the provinces. Sample pieces of cloth of eri and mulberry were prepared and dyed with alizarin colours to show weavers the possibilities of these silks. The industry in 1910 was most extensive in Tirhoot, Bhagalpur and Patna divisions and was also taken up in Malabar, Dharwar, Gujrat, Kathiawar, Sind, Patiala, Rohilkhand, Betul, Chanda and Murshidabad. The Salvation Army also took it up in Bangalore and elsewhere.

It was found that one of the obstacles in the development of the spread of eri cultivation was the difficulty experienced by individual rearers in disposing of the cocoons and the need was felt of an organisation which could give advice and help to small cultivators and buy small lots of cocoons produced by them. In Tirhoot an attempt was made to induce the Bihar Indigo Concerns to serve as buying centres for the hundreds of small lots of cocoons produced in the locality, but without success.

A practical spinning machine of a simple kind was devised and later on improved. About half a pound of reeled silk could be twisted by a boy or girl on this machine in eight hours. Under the guidance of the Imperial Entomologist a combined doubling and twisting machine was designed and produced by Mr. E. F. Watson of Messrs. Arthur Butler and Company of Muzaffarpur.

(2) *Mulberry Silk.*—Among the silk yielding species of insects, the mulberry silk worm is the most important. Of this species there are two groups:—(1) Univoltine, giving one crop in a year—these are the domesticated silk-worms of China, Japan, Italy, France, etc.,—and (2) Multivoltine which hatch four or five times a year and which constitute the chief mulberry silk-worms of India. The univoltine races are considerably superior to multivoltine ones in regard to the quality and quantity of silk they yield. Attempts were therefore made at Pusa to combine the best characters of both indigenous and foreign races by hybridization. Univoltine races from various countries were imported and crossed with the indigenous multivoltine ones. Univoltine European races were also reared successfully on pruned tree mulberry, wild mulberry and bush mulberry. One of the

difficulties with eggs of these races is that the temperature of the plains is too high to preserve them successfully during the dormant period. Experiments were therefore made with good results to send them to places in the hills where the temperature is not so high. As a result of the hybridization work, a multivoltine mongrel race was established after many trials. It at first yielded silk superior in quality and quantity to that of the Bengal multivoltine races, but it began to deteriorate after the 14th generation and in the 16th generation there was practically no difference between the mongrel race and the ordinary Bengal races. Further experiments to evolve a suitable type by crossing yielded a multivoltine hybrid race the yield of which was about 75 per cent. more than the multivoltine races generally reared in Bengal, but in later generations the improvement in this type also was not found to be maintained.

Feeding experiments carried on with leaves of trees, as opposed to bush mulberry showed that the former gave a yield of silk superior in quality and quantity to that obtained by the use of the latter.

(3) *Diseases of silk-worms.*—The decline of the silk industry in India is ascribed mainly to the deterioration of silk-worms through the disease known as Pebrine. Investigations were therefore taken up at Pusa in 1915 by the Imperial Agricultural Bacteriologist into the conditions of the incidence of the disease, the primary object being to determine whether the failure to avoid disease in India by using the Pasteur method of selection of disease free seed is due to any inherent inapplicability of the method to Indian conditions or to its improper use. It was found that the method as practised in Europe was not applicable to the conditions in this country. An adaptation of the Pasteur method however was found to be applicable to local conditions and was adopted by various *grainages* in India and favourable reports on the success of its use were received. Later on Mr. Jameson, a Protozoologist, studies this and other diseases to which the various kinds of silk-worms are subject. He remained in India for about three years and made a report of his investigations in which he stated that if the practice of using examined seed is made universal, coupled with improvements in the silk-worm rearing house, in the methods of rearing and in the cultivation of mulberry, pebrine could be stamped out.

An investigation of the cause of the "Tukra" disease of mulberry resulting in curling and malformation of the shoots and new leaves was carried out at Pusa. It was found that the disease was due to the presence of a mealy-bug and could be eliminated by the removal of the affected shoots followed by thorough spraying.

A list of publications on the sericultural work done at Pusa is enclosed.

List of publications of Sericultural work.

1. Eri or Castor Silk, by H. Maxwell-Lefroy (*Agricultural Journal of India*, Vol. IV, pp. 125-133).
2. Instructions for rearing Eri Silk (Leaflet in English, Hindi, Bengali), January, 1910.
3. Eri Seed Exchange (Leaflet), January, 1910.
4. Eri Silk as a Cottage Industry (Pamphlet in English, Urdu and Hindi), December, 1910.
5. Mulberry Silk in the United Provinces (Pamphlet in English, Urdu and Hindi), December, 1910.
6. Commercial Possibilities of Eri Silk, by C. C. Ghosh (Indian Industrial Conference), December, 1910.
7. Eri Silk, by H. Maxwell-Lefroy and C. C. Ghosh, May, 1912.
8. Eri Silk (Second Edition).

9. Grasserie in Silk Works by M. N. De (Agricultural Journal), July, 1911.
10. Directions for the cultivation of Eri Silk (Bulletin No. 29).
11. Directions for the cultivation of Eri Silk (Second Edition).
12. Instructions for rearing Univoltine Mulberry Silk-worms, by M. N. De (Bulletin No. 39).
13. Instructions for rearing Mulberry Silk-worms (Bulletin No. 39) (Revised Edition).
14. Instruction for rearing Mulberry Silk-worms (Bulletin No. 39) (3rd Edition).
15. Instruction for rearing Mulberry Silk-worms, by M. N. De (Bengali Edition).
16. How to improve Silk Reeling in Bengal, by M. N. De (Bulletin No. 44).
17. First Report on the Experiments carried out at Pusa to improve the Mulberry Silk Industry, compiled by M. N. De (Bulletin No. 48).
18. First Report on the Experiments carried out at Pusa to improve the Mulberry Silk Industry, compiled by M. N. De (Bulletin No. 48), (Bengali Translation).
19. Anatomy of Silk-worm and Moth, by M. N. De (Grihastha Publishing House, Calcutta).
20. Second Report on the Experiments carried out at Pusa to improve the Mulberry Silk Industry, compiled under the direction of the Imperial Entomologist by M. N. De (Bulletin No. 74).
21. Bengali Edition of Bulletin No. 74 on the Experiments carried out at Pusa to improve the Silk Industry.
22. The Pusa Experiments on the improvement of Mulberry Silk-worms (Report, Proceedings, Third Entomologists' Meeting, Pusa, 1919), by M. N. De.
23. The best method of eliminating Pebrine from Multivoltine Silk Work Races in India, by M. N. De (Proceedings, Third Entomologists' Meeting, Pusa, 1919).
24. Pebrine in India, by C. M. Hutchinson.
25. Pebrine Disease of Silk-worms in India, by C. M. Hutchinson (Bulletin No. 75).
26. Report on the diseases of Silk-worms in India, by Jameson.
27. A paper on Eri Silk was read at the All-India Industrial Conference held at Karachi in December, 1913.
28. Articles on Tussar and Mulberry Silk-worm Rearing were contributed to the vernacular magazines "Grihastha" (Calcutta) and "Krishi Sampada" (Dacca).

Letter No. 2, dated the 1st January, 1933, from the Tariff Board, to all Collectors of Customs.

I am directed to say that the Director General of Commercial Intelligence has informed the Tariff Board that you are supplying him with a statement showing the monthly market prices of the various tariff-value descriptions of raw silk. As the Board is now enquiring into the question of granting protection to the Sericultural industry, it would be useful if you could also send the Board these statements for the last five years and continue to send them in future till April, 1933. It would also help the Board if you could give it an idea as to how these market prices are obtained by you and what is exactly the trade discount which, it is understood, is deducted from the market price in order to arrive at the tariff valuation.

Collector of Customs, Calcutta.*Letter No. 673, dated the 11th January, 1933.***Re RAW SILK.**

I have the honour to refer to your letter No. 8-B, dated the 22nd December, 1932, and No. 2, dated the 1st January, 1933.

2. There have been no importations of raw silk at Calcutta during the last five years (*vide* Table No. 7 on page 787 of Volume II of the Annual Statement of the Sea-borne Trade of British India for the year ending 31st March, 1931) and I am therefore unable to furnish any information relating to this article.

3. The tariff valuations of the different items under the heading "Raw Silk" are fixed on the basis of market prices prevailing at Bombay through which port most of the articles under this class are imported. I therefore suggest a reference being made to the Collector of Customs, Bombay, for the information required by the Board.

4. Imports of spun silk are shown undistinguished in the trade returns under the head "Silk, yarn noils and warp". No separate statistics for spun silk are therefore available.

Collector of Customs, Karachi.*Letter C. No. 5/35, dated the 11th January, 1933.*

I have the honour to refer to your letter No. 2, dated the 1st January, 1933.

2. There have been no imports of raw silk at this port during recent years and consequently the market price of this commodity is not included in the list of market prices furnished monthly to the Director General of Commercial Intelligence and Statistics.

3. In 1928-29 raw silk amounting to 28,104 lbs. valued at Rs. 1,08,346 was imported from Italy (*vide* statement forwarded with my reply to your letter No. 8-B, dated the 23rd December, 1932). No information is, however, available regarding the trade discount then allowed.

Collector of Customs, Bombay.*Letter No. R. S. R. 1A of 1932, dated the 12th January, 1933.***Subject:—TARIFF BOARD ENQUIRY—RAW SILK—MARKET PRICES OF.**

Your letter No. 2, dated the 1st January, 1933.

With reference to your letter cited above, I have the honour to inform you that the monthly market prices of the various tariff valued descriptions of raw silk required by you are shown in the "Monthly Statement of Average Market prices of articles liable to duty at Tariff Valuations", copies of which were regularly furnished to you month by month during the last 5 years.

2. The market prices given in the Statement for each month are the actual average prices of the various descriptions of silk in question ruling in the market during that month. These prices include a trade discount of $1\frac{1}{2}$ per cent. and a brokerage of $\frac{1}{2}$ per cent.

Collector of Customs, Rangoon.

Letter C. No. 812 of 1932, dated the 21st January, 1933.

RAW SILK—MARKET VALUES OF.

I have the honour to refer to your letter No. 2, dated the 1st January, 1933.

2. The market prices of the various tariff valued descriptions of raw silk included in the monthly statements of market values for tariff-rated articles sent to the Board. The prices are obtained by enquiries in the local market. No discounts are allowed, the transactions being on a cash basis. A deduction is, however, made for import duty in fixing the tariff valuations.

Collector of Customs, Madras.

Letter No. R. O. R. 5/33-Ap., dated the 2nd February, 1933.

STATEMENTS—MONTHLY MARKET PRICES OF RAW SILK.

Your letter No. 2, dated the 1st January, 1933.

I have the honour to forward herewith a statement showing the monthly market values of raw silk at this port from 1928. The figures represent the nett wholesale cash price as ascertained from the wholesale dealers. No trade discount is usually allowed on this class of goods.

Enclosure.

Market values of Raw Silk.

Yellow Shanghai.

	Rs. A.
1928.	
January	5 8
February	5 8
March	5 5
April	5 5
May	5 4
June	5 4
July	5 8
August . . . . .	...
September	6 3
October	5 8
November	6 0
December	5 12
1929.	
January	5 12
February	5 12
March	5 12
April	5 12
May	5 12
June	5 12

Yellow Shanghai—contd.

	Rs. A.
1929—contd.	
July	5 12
August	5 4
September	5 6
October	5 12
November	5 12
December . . . . .	...
1930.	
January	5 10
February	5 10
March . . . . .	...
April	5 8
May	5 8
June	5 12
July	5 8
August	5 9
September	5 10
October	5 8
November	5 6
December	5 8

Yellow Shanghai—contd.

	Rs. A.
1931.	
January	5 8
February	5 0
March	5 8
April	5 4
May	5 0
June	5 0
July	5 0
August	4 14
September	5 9
October	5 0
November	5 4
December	5 10

1932.	
January	6 0
February	5 12
March	5 12
April	5 10
May . . . .	...
June	5 8½
July	5 9

Yellow Shanghai—concl.

	Rs. A.
1932—contd.	
August	5 7
September	5 0
October	5 4
November	4 13½
December	5 0

*White Shanghai—Thankoon
or Duppon.*

1930.	
February	4 0
1932.	
July	4 2
August	4 10

*White Shanghai, other
kinds.*

1932.	
October	4 6
November	5 12½
December	5 12½

Letter No. 13, dated the 3rd January, 1933, from the Secretary, Tariff Board, to all the Principal Railways.

In connection with the enquiry into the question of granting protection to the sericultural industry, I am directed to say that the Tariff Board would be grateful if you would forward a statement showing the freight applicable to raw silk, silk-waste, cocoons and silk fabric on your railway under the following heads:—

- (1) Ordinary rates.
- (2) Schedule rates.
- (3) Principal Station to Station rates.
- (4) Wagon load or other concession rates.

So far as items (2), (3) and (4) above are concerned, the Board would like to know to what extent in actual practice they favour Indian raw silk, silk-waste, cocoons and silk fabric as compared with these imported from other countries.

2. I am to say that the Board has a limited time at its disposal in which to complete the present enquiry and would be grateful if the reply to this letter (with six spare copies) could be sent not later than the 31st January, 1933.

Bombay, Baroda and Central India Railway Company, Limited.

Letter No. R. 7/33/1, dated the 9th January, 1933.

ENQUIRY INTO THE QUESTION OF GRANTING PROTECTION TO THE AGRICULTURAL INDUSTRY.

With reference to your letter No. 13, dated the 3rd instant, I give below the ordinary bases of charge for the following articles:—

Articles.	Class.	Bases of charge pie per maund per mile.
Silk-waste (Chussam)	4	0·62
Silk, raw or in cocoons	6	0·83
Silk, twist or thread	6	0·83
Silk, velvet	8	1·04
Silk, manufactured	8	1·04
Silk piecegoods	9	1·25

The articles mentioned above are charged at the ordinary rates over this Railway and no schedule, station to station or concession rates are quoted, nor does this Railway make any discrimination between imported and indigenous articles for the purpose of charge.

Six spare copies of this letter are enclosed.

Madras and Southern Mahratta Railway Company, Limited.

Letter dated the 11th January, 1933.

With reference to your letter No. 13, dated the 3rd January, 1933, addressed to the Agent of this Railway and forwarded to me for disposal, I beg to inform you that the ordinary rates of the following commodities are as shown against each:—

		Pie per maund per mile.
1. Raw silk (e)	6 RR	0·83
2. Silk-waste	4 RR	0·62
3. Cocoons (e)	6 RR	0·83
4. Silk fabric (e) (piecegoods, silk)	9 RR	1·25

(e) Denotes expected article.

No schedule, station to station or other special rates are in force over this Railway for the above commodities and the rates apply equally to imported goods as well as goods manufactured or produced in this country.

Assam Bengal Railway Company, Limited.

Letter No. E. P./565, dated the 14th January, 1933.

RATES FOR RAW SILK, SILK-WASTE, COCOONS AND SILK FABRIC.

Your No. 13, dated the 3rd January, 1933.

In reply to your above quoted letter, I have to inform you that all such traffic of the commodities mentioned by you is carried at full class rates.

South Indian Railway.

Letter No. B. B. 961/59, dated the 17th January, 1933.

SERICULTURAL INDUSTRY—PROTECTION FOR.

Your No. 13 of 3rd January, 1933, to the Agent, S. I. Ry.

The commodities referred to in your above are charged as under on this Railway:—

Silk, manufactured and silk, velvet	8 RR.
Raw silk or silk in cocoons	6 RR.
Silk, twist or thread	6 RR.
Silk-waste	4 RR.

No discrimination is made between indigenous or imported goods. We have not quoted any schedule, station to station, wagon load or other concession rates for these commodities.

Great Indian Peninsula Railway.

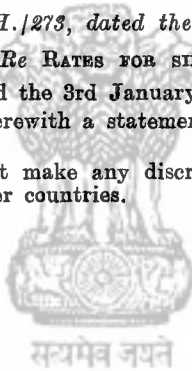
Letter No. 13389-H./273, dated the 17th January, 1933.

Re RATES FOR SILK.

Your letter No. 13, dated the 3rd January, 1933.

I am directed to send herewith a statement (with 6 spare copies) giving the information required.

2. This Railway does not make any discrimination between Indian silk and silk imported from other countries.



Enclosure

Articles.	Ordinary rates, i.e., classification.	Schedule rates.	Principal station to station rates.	Wagon load or other concession rates.	Basis of class rates.	REMARKS.
1. Silk, raw or in cocoons . . .	6th RR	Nil.	Nil.	Nil.	Pie per md. per mile.	In addition to the rates arrived at the basis shown in the preceding column, a terminal charge of 12 pies per md., i.e., 6 pies at forwarding station and 6 pies at receiving station in local booking is to be levied.
2. Silk-waste (chussam) . . .	4th RR				.83	
3. Silk, twist or thread . . .	6th RR				.62	In through booking 8 pies per md. at either forwarding or receiving station.
4. Silk, manufactured . . .	8th RR				.83	Short distance charge.—When the distance over the G. I. P. Railway is less than 75 miles except in the case of cross traffic a short distance charge of 3 pies per md. subject to the differential rule as to distance will be levied in addition to the terminals specified above.

North Western Railway.

Letter No. 1201-R/188, dated the 18th January, 1933.

I enclose a statement (with six spare copies) showing the rates for silk, raw or in cocoons, silk-waste and piecegoods, silk applicable over this Railway, as desired.

2. No schedule or station to station rates are quoted for any of these commodities either in small consignments or in wagon loads. Rates on the bases shown in the attached statement apply generally in bookings from all stations and no preference is thus, in actual practice, given to indigenous articles as compared with imported articles.

Enclosure.

Statement showing rates for silk, raw, silk-waste, etc.

Article.	Rate chargeable.	Basis of the Rate.	
		Pie per Md. per mile.	
Silk, raw or in cocoons .	6th class	0.83	} Plus a terminal charge of 6 pies per maund in local booking and 3 pies per maund in through booking and a short distance charge of 3 pies per maund for distances up to 74 miles.
Silk-waste (chussam) .	4th class	0.62	
Piecegoods, silk . .	9th class	1.25	

Burma Railways.

Letter No. R. C. 1-5-33/1, dated the 19th January, 1933.

FREIGHT RATE TO RAW SILK, SILK-WASTE, COCOONS AND SILK FABRIC.

With reference to your letter No. 13, dated the 3rd January, 1933, addressed to the Agent, Burma Railways, I beg to inform you that the classified rates as appearing in the General Classification of Goods quoted for all Indian Railways apply to the articles enumerated in your letter on the Burma Railways also. No special rates are quoted for this traffic Indian or otherwise.

Bengal and North-Western Railway Company, Limited.

Letter No. R. 14/9, dated the 18th/20th January, 1933.

With reference to your letter No. 13, dated the 3rd January, 1933, to the Agent, I beg to state that the present rates chargeable over this Railway for silk, raw, etc., are the ordinary tariff rates—

Silk, raw in cocoons—6th class—83 pie per maund per mile.

Silk, twist or thread—6th class—83 pie per maund per mile.

Silk-waste (cunam)—4th class—62 pie per maund per mile.

Plus terminal charges which are one anna per maund in local booking and 6 pies per maund in through booking. In the case of through traffic where a break of gauge is involved a transshipment charge of 3 pies per maund is also levied to these rates.

East Indian Railway.

Letter No. T. B. 4/33/BG., dated the 20th January, 1933.

PROTECTION TO SERICULTURAL INDUSTRY.

The Board in their letter No. 13, dated the 3rd January, 1933, to the Agent, have asked for information regarding freights on the following articles:—

- (1) Silk, raw.
- (2) Silk-waste.
- (3) Silk cocoons.
- (4) Silk fabric.

Items (1) and (3) are classified in the General Classification of Goods at 6th class at Railway Risk. The basis of the 6th class rate is '83 pie per maund per mile *plus* terminals.

Item (2) is classified in the General Classification at 4th class at Railway Risk. The basis of 4th class rate is '62 pie per maund per mile *plus* terminals.

Item (4) comes under the General Classification head "Silk piecegoods" —9th class at Railway Risk, the basis of which is 1'25 pies per maund per mile *plus* terminals.

Ordinary classified rates as shown above for the articles mentioned in the Board's letter are charged over the East Indian Railway.

No schedule or station to station rates or any other concession rates for these commodities in wagon loads, etc., are in force over this Railway system. Therefore, no question of any preference in rates in favour of indigenous products or manufacture arises in practice.

The existing terminal charges levied in addition to the per maund per mile rates shown above are given below:—

Terminal charges leviable on silk, raw, silk cocoons, silk-waste and silk piecegoods.

	In local booking.	In through booking.
Pies per maund.	Pies per maund.	Pies per maund.
To and from Howrah, Sealdah, Chitpur and via, Cossipore Road, Ultadanga and Kidder- pore Docks for all distances	8	5
To and from other stations:—		
When carried under 75 miles	9	6
When carried 75 miles and over	6	3

Bengal Nagpur Railway Company, Limited.

Letter No. C. 1489/21/360, dated the 23rd January, 1933.

In continuation of my letter No. C. 717/21/360, dated the 12th January 1933, and in reply to your letter No. 13 of the 3rd *idem*, I beg to inform you that silk, raw, waste, cocoons, and silk fabric are charged over this Railway according to the respective class rates (ordinary rates) as shown in the Indian Railways' General Classification of Goods issued by the Indian Railway Conference Association. Enclosed is a statement showing the respective classifications of each of the commodities with the basis of charge for the class under which the commodities fall.

2. No schedule, station to station, or wagon-load concession rates have been quoted for any of the goods mentioned above. Up to now, this rail-

way has not been approached to grant any preferential rates for Indian raw silk, waste, cocoons and silk fabric as compared with those in force for these products when imported from other countries.

3. Six spare copies of this letter and of the statement referred to therein are enclosed herewith as desired.

Enclosure

Statement showing the present general classification.

Article.	Classification.	Basis of charge.* Pie per md. per mile.
Silk, raw or in cocoons (e)	6 RR	83
Silk-waste (chussam)	4 RR	62
Silk, twist or thread (e)	6 RR	83
Silk, manufactured (e)	8 RR	1.04
Piecegoods, silk (e)	9 RR	1.25

(e) Indicates that the commodity is an excepted article, entered in schedule II of the Railway Act and must be dealt with in accordance with General Rule 33 of the General Classification of Goods.

RR Indicates that the rate applies at Railway Risk.

* In addition to this basic rate, terminal, transshipment (due to break of gauge), and other extra charges (ferry, siding, etc.) are leviable.

Eastern Bengal Railway.

Letter No. 562-C.171/S. N. 65/C. R. D. II, dated the 23rd January, 1938.

RATE FOR RAW SILK, SILK-WASTE, COCOONS AND SILK FABRIC OVER THE E. B. RAILWAY.

Your letter No. 13 of 3rd January, 1938, to the Agent, E. B. Ry.

The articles in question when booked by goods trains are charged over this Railway at class rates as per General Classification of Goods as shown below:—

Silk, raw or in cocoons (e)	6 RR.
Silk-waste (chussam)	4 RR.
Silk fabric (as silk, manufactured)	8 RR.

2. No other lower rates are quoted over this Railway.

3. When booked as coaching traffic all these articles are charged at full parcels rate. No other lower rates are quoted.