GOVERNMENT OF THE
CENTRAL PROVINCES AND BERAR

EDUCATIONAL RECONSTRUCTION AND VOCATIONAL TRAINING

IN THE

CENTRAL PROVINCES & BERAR

Report of the Committee appointed by Government to do Exploratory Work and to collect Data for the consideration of Experts on a Scheme of Educational Reconstruction and Vocational Training in this Province

NAGPUR
GOVERNMENT PRINTING, C. P. & BERAR
1937

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GENERAL

CHAPTER I.—APPOINTMENT OF THE COMMITTEE AND TERMS OF REFERENCE

1. Aftermath of the Hartog Report—General awakening of interest in educational reform.—The critical survey of the educational system in this country made by the Hartog Committee has awakened much public interest in educational matters and has inspired Provincial Governments, universities and eminent educationists to subject the educational system to further examination and criticism. In 1932-33, the Punjab University Inquiry Committee was instituted to inquire into certain aspects of the educational system. In March 1934, the Inter-Universities Conference, held at Delhi, drew attention to what it considered to be the characteristic weakness of the existing system of education and suggested a general basis for educational reconstruction in this country. In August 1934, the Government of the United Provinces passed a resolution which embodied statements of the views of leading educationists in this country on what they regarded as the inherent drawbacks of the prevailing system of education. This resolution was followed by an inquiry into unemployment among educated people which was conducted by an influential Committee with Sir Tej Bahadur Sapru as Chairman. Other Provincial Governments have also been engaged in examining the system of education in their provinces with a view to the detection of fundamental defects in the system and the adoption of adequate measures for their removal.

2. His Excellency the Viceroy on the need of educational reconstruction.—While opening the Inter-Universities Conference in Delhi in March 1934, His Excellency the Viceroy expressed his deep concern for educational reconstruction in India and made weighty observations on some of the essential considerations which no scheme of educational reform can ignore. Among other significant observations made by His Excellency the Viceroy in his speech, the following is of particular interest :—

> "From the point of view of the students concerned, it is heartrending that many young men who have forced their way successfully up the educational ladder

and obtained high educational degrees, often in spite of many obstacles and handicaps, are yet unable to find means, either of maintaining themselves or of serving their fellowmen. From the point of view of the country, it is disastrous that the labours and initiative of these young men should be running to waste. Keen and unmerited disappointment, accentuated by irksome inactivity, are apt to lead high spirited young men into dangerous and unexpected channels. I am well aware that Universities cannot by themselves create developments in industries and commerce; in these respects, they are enchained by forces over which they have little or no control. But it is undoubtedly within the province of educational authorities, so to adjust the general scheme of education that the bent of students and pupils shall be turned towards occupations best suited to their conditions and capacities."

3. The Resolution of the Central Advisory Board of Education on unemployment and educational reconstruction.—The Central Advisory Board of Education, which was revived in 1935, immediately took up the study of the problem of educational reconstruction in this country and the co-ordination of the activities in this respect of Provincial Governments and educational bodies. In December 1935, the Board passed important resolutions summarizing various defects in the existing system of education and suggesting in broad outline schemes for educational reconstruction. The following is the text of these resolutions :—

"(1) While conscious of the great debt which is due to the education hitherto provided in India and of the part played by Universities in promoting higher study and research and in training men and women for the service of India, the Board is of opinion that the following considerations, among others, necessitate a new attitude towards educational problems :—

(*a*) The increasing desire among educationists and others to bring about changes in the educational system in view of the altered conditions of life.

(*b*) The growing volume of unemployment among the educated classes.

(*c*) The emphasis laid on a purely literary form of instruction in schools.

(*d*) The inadvisability of too frequent examinations.

(*e*) The large number of 'over-age' pupils in the senior classes of high schools.

(*f*) The increasing number of students in Universities, who are unable to benefit by University instruction and, in consequence, the difficulty in making satisfactory provision for the better qualified students and for research.

(*g*) The need of developing training of a more practical type than at present and of making provision for such training, especially for those with little or no literary bent, and of adjusting it to the scheme of general education.

(*h*) The advisability of developing a suitable scheme of rural education, by which boys and girls in rural areas shall be given such training as would develop in them a capacity and desire for the work of rural reconstruction.

(2) The Board is of opinion that a radical re-adjustment of the present system of education in schools should be made in such a way as not only to prepare pupils for professional and university courses, but also to enable them, at the completion of appropriate stages, to be diverted to occupations or to separate vocational institutions.

(3) These stages should be—

(*a*) *The primary stage*, which should aim at providing at least a minimum of general education and training and will ensure permanent literacy.

(*b*) *The lower secondary stage*, which will provide a self-contained course of general education and will constitute a suitable foundation either for higher education or for specialized practical courses.

In rural areas, the courses at this stage should be attuned to rural requirements.

Some form of manual training at this stage should be provided, which would aim at the development of practical aptitudes, and be made compulsory.

(*c*) *The higher secondary stage*, in which would be included institutions with varying length of courses—

(i) for preparing students for admission to universities in arts and science ;

(ii) for the training of teachers in rural areas ;

(iii) for agricultural training ;

(iv) for clerical training ; and

(v) for training in selected technical subjects which should be chosen in consultation with employers.

Where separate institutions are not possible for the diversified courses, some of them might be incorporated in a higher

secondary course of enlarged scope which would permit a choice of alternative groups of subjects and would end in leaving certificates.

(4) At the end of the lower secondary school course there should be the first public examination.

(5) Candidates desirous of joining the subordinate clerical services of Government and of local bodies should pass such qualifying examinations as might be prescribed by proper authority and should not be more than 19 years of age at the date of their examination.

The certificates granted to pupils completing other specialized courses should receive Government recognition.

(6) Expert advice would be of value in organizing the scheme of reconstruction outlined above ; and also for suggesting methods of training masters who would assist pupils and parents in the selection, by the pupils, of courses of study with due regard to their aptitudes."

4. It is of interest that the views of the Central Advisory Board embodied in the above resolutions are in general agreement with the views expressed by the Universities Conference held in March 1934.

5. Government of India's offer to obtain expert advice for Provincial Governments.—While dealing with the resolutions of the Central Advisory Board of Education, the Government of India were impressed by the need for educational reconstruction which was voiced from various influential sources and by "the general agreement as to the diagnosis of present troubles and discontent". They also expressed their anxiety that the Provincial Governments should give sympathetic attention to the need of educational reconstruction on the lines suggested by the Central Advisory Board of Education. As education was a transferred subject the Government of India was not able to take any direct step in the matter ; yet they expressed their willingness to take the initiative by offering to render such assistance to Provincial Governments as they might need for a specific purpose. In consonance with clause 6 of the Resolution of the Central Advisory Board of Education, the Government of India offered to call experts, "who have practical knowledge and experience of conditions in the West," in order to advise the Provincial Governments which were willing to remodel their system of education on the lines suggested by the Central Advisory Board of Education. The work of educational reconstruction involves considerable preliminary exploration and planning and the

exact issues on which expert advice in needed obviously depend upon local conditions. The Government of India, therefore, suggested that the Provincial Governments, should appoint a local committee to make a preliminary inquiry and to collect data on which to obtain expert advice.

6. Appointment and personnel of the Committee.—The Government of the Central Provinces accepted the offer of the Government of India and appointed the following Committee to do exploratory work and collect the necessary data for obtaining expert advice for the purpose of organizing the scheme of educational reconstruction outlined by the Central Advisory Board of Education :—

(1) Director of Public Instruction, Central Provinces and Berar—*Chairman.*

(2) Director of Industries, Central Provinces and Berar.

(3) Sir Sorabji B. Mehta, Kt., C.I.E.,

(4) Rao Bahadur G. R. Kothare, M.L.C., Khamgaon.

(5) L. G. D'Silva, Esq., B.A., Officer on Special Duty, Education Department, Central Provinces.

(6) The Inspector of Industrial Schools, Central Provinces and Berar.

(7) Dr. V. S. Jha, B.A., Ph.D., Inspector of Schools, Chhattisgarh Circle—*Secretary.*

7. The task before the Committee was referred to in paragraph 10 of the Government of India letter, dated the 30th April 1936, and the following extract from it may be quoted :—

"The details of a scheme involving the use of the services of such experts will have to be worked out by each Local Government to suit its own requirements. What the Government of India contemplate is that each province should prepare beforehand, in consultation with those concerned, the data on which advice could be given. Local conditions and requirements will determine what the scope of this preliminary investigations should be. It is certainly not the desire of the Government of India that the whole field of education should be reviewed yet again. All that need be attempted will probably be the bringing up to date of information which would enable the experts to advise

how the general educational foundation should be adjusted to the ideals recommended by the Board and a scheme of vocational training erected on this foundation."

8. Terms of reference.—The following specific terms of reference were placed before the Committee :—

(i) To collect information which would enable the experts to determine the nature of the self-contained courses of general education, to be imparted in the lower secondary stage, which will constitute a suitable foundation either for higher education or for specialized practical courses.

(ii) To collect such material as would assist the experts to organize practical training and the institutions in which it should be imparted.

(iii) To suggest methods of training masters who would assist the pupils and parents in the selection, by the pupils, of the courses of studies suited to their special aptitudes.

(iv) To collect information in respect of defects pointed out by the Government of India in the organization of primary schools.

(v) To examine the problem of attuning the courses of instruction imparted in the middle schools situated in rural areas to rural requirements.

9. Procedure.—The Committee held two meetings on the 16th July 1936 and on the 8th and 9th March 1937, respectively. At the first meeting, the Committee appointed the following three sub-committees :—

I.—The Questionnaire Sub-Committee ;

II.—The Educational Reconstruction Sub-Committee ; and

III.—The Vocational Education Sub-Committee.

The questionnaire prepared by the Questionnaire Sub-Committee is embodied in Appendix I.

10. At the second meeting of the Committee held on the 8th and 9th March 1937, the replies received to the questionnaire and the reports of the two sub-committees were considered. The Committee adopted general views and principles on which its report should be based.

CHAPTER II.—THE OBJECTIVES OF EDUCATIONAL RECONSTRUCTION

11. Drawbacks in the existing system of education in the province.—The various drawbacks in the existing system of education are enumerated in paragraph 3 (1). It is necessary to examine the extent to which these defects obtain in the system of education in this province.

12. Agreement with the views of the Central Advisory Board of Education.—We are in general agreement with the opinion of the Central Advisory Board of Education mentioned in paragraph 3 (1) (*a*) that the system of education should be re-adjusted in the light of the altered conditions of life. The system of education in this province has not kept pace with the real and changing problems of life and bears, therefore, little relation to the environment of pupils. An advance has recently been made in this province by the introduction of revised syllabi for primary schools and normal schools. In both syllabi the environment of the pupils has received special consideration.

13. We are also much impressed with the desire of attuning the courses of instruction in the rural areas to the rural requirements as is suggested in paragraph 3 (1) (*c*). This demand follows necessarily from the general principle enunciated in paragraph 3 (1) (*a*). Attempts have been made in this province from time to time to meet the educational requirements of the rural population by creating in the pupils in rural areas a practical interest in rural problems and in the planning of rural reconstruction. There is, however, still much work to be done in this direction and the suggestion of the Central Advisory Board, contained in paragraph 3 (1) (*h*), adds additional support to the policy which has been pursued in this province for several years. This policy needs to be pursued still more thoroughly.

14. The committee has found ample evidence in support of the contention mentioned in paragraph 3 (1) (*c*), *viz.*, that in the present system of education, excessive emphasis is laid on a purely literary form of instruction in schools. This contention leads to the suggestion contained in paragraph 3 (1) (*g*), *viz.*, the need of training of a more practical type than at present and of making provision for such training specially for those with little or no literary bent and of adjusting it to the scheme of general education. The need of introducing certain practical elements in the

instruction imparted in schools has engaged the attention of the Department of Education in this province for a considerable time. Instruction in drawing has constituted a part of general education ever since educational activities were introduced in this province by Government. Instruction in manual training was introduced in 1918 in some middle schools and this subject has since been included in the syllabus of studies prescribed by the High School Education Board for middle and high schools. Instruction in manual training imparted at present includes clay-modelling, card-board and wood and metal work. Separate vocational institutions for subjects such as carpentry, smithy, leather work and tailoring have also existed for a considerable time and their progress has depended upon the policy outlined by Government in 1922, on the Report of the Vocational Education Committee of that year. The suggestions contained in paragraph 3 (1) (*c*) and 3 (1) (*g*) lend support to the policy which has been steadily followed in this province for over a quarter of a century. We are of opinion, however, that there is still room for making the courses of instruction more practical and consider it worth while to investigate further the possibilities of providing training of a more practical type than is imparted in schools under the present system of education.

15. Points in which the committee disagrees with the views of the Central Advisory Board of Education.—We are reluctant to accept the statement contained in paragraph 3 (1) (*b*), *viz.*, that the growing volume of unemployment among the educated classes is one of the considerations which should necessitate a new attitude towards educational reconstruction. The main theme of the Central Advisory Board's resolution is " unemployment and educational reconstruction " and one may get the impression that the scheme of educational reconstruction outlined by the board is essentially intended to combat the growing volume of unemployment among the educated classes. We are also aware of the fact that the Universities Conference held at Delhi in March 1934, supported this view of the Central Advisory Board of Education by adopting the following resolution :—

> " A practical solution of the problem of unemployment can only be found in the radical re-adjustment of the present system of education in schools, in such a way that a large number of pupils would be diverted into occupations or into separate vocational institutions."

16. Extent of unemployment among educated classes—Products of schools and colleges.—It is difficult to form a correct estimate of the extent of unemployment among the educated classes in this province. The census report of 1931 shows that the figure of unemployment among the educated classes is only 233. The following table, which shows unemployment among persons with various qualifications, is quoted from this report :—

Degree	Total unemployed	Age 20—24		Age 25—29		Age 30—34		Age 35—39	
		Unemployed for less than one year	Unemployed for one year or more	Unemployed for less than one year	Unemployed for one year or more	Unemployed for less than one year	Unemployed for one year or more	Unemployed for less than one year	Unemployed for one year or more
British degrees	..	..	..	..	..	..	..	..	..
Continental degrees	..	..	..	..	..	..	..	..	..
American degrees	..	..	..	..	..	..	..	..	..
Other foreign degrees ..	..	..	..	..	..	..	..	..	..
Indian degrees—									
Medical	..	..	..	..	..	..	..	..	..
Legal ..	2	..	..	..	1	..	..	..	..
Agricultural	..	..	..	..	..	..	..	..	..
Commerce	..	..	..	..	..	..	..	..	..
M. A. ..	1	1	..	..	..	..	..	..	..
M. Sc.	..	..	..	..	..	..	..	..	..
B. A. ..	11	2	1	..	7	..	1	..	..
B. Sc. ..	1	..	..	..	..	..	1	..	..
B. Eng. or L. C. E. ..	..	..	..	..	..	..	..	..	..
B. T. or L. T.	..	..	..	..	..	..	..	..	..
S. L. C. or Matric..	218	46	119	8	30	2	7	1	5
Total ..	233	49	120	8	38	2	9	1	6

17. The number of educated unemployed revealed by the above table is incredibly small and the Census Report contains the following observations to indicate its unreality :—

> " The total number of returns was 233 only and it would seem that the general public was suspicious of the intention of Government in collecting these statistics,

for the figure does not in any way represent the true state of affairs, and is stultified by the number of applications for employment in the Census Tabulation Offices received early in 1931. The actual details are given in the margin. Owing to the reduction of the staff of many Government Departments since the close of census operations, the number of such unemployed must have risen very considerably. It is clear from the marginal statement that out of 61,122 adult males in the Province literate in English, at least 2,299 were unemployed when the census was taken, that is to say, over 3 per cent and the figure is a low estimate since almost all the applications for employment came from local people. If the percentage of the population, literate in English in Nagpur and Jubbulpore cities and Raipur and Amraoti districts were taken, it would be over 10 per cent but the estimate made before the Census was 33 per cent."

Educational qualification	Nagpur	Jubbulpore	Raipur	Total
Graduate ..	51	17	1	69
Under-graduate ..	75	9	6	90
Matriculate ..	411	178	26	615
Non-matriculate ..	690	400	435	1,525
Primary certificate holders and other vernacular knowing men.	258	298	163	719
Total ..	1,485	902	631	3,018

18. The following table will give some idea of the increase in the number of educated people of various grades in this province :—

Statement showing the number of successful candidates at various examinations.

Year	Matric	B. A.	B. Sc.	M. A.	M. Sc.
1912 ..	276	50	10	2	..
1917 ..	425	94	4	5	1
1922 ..	420	51	16	3	2
1927 ..	1,082	146	37	33	8
1932 ..	1,355	198	54	20	11
1936 ..	2,209	252	63	49	19

In addition, in 1936 three students passed the B. A. (Hons.) examination and six students the B. Sc. (Hons.) examination.

19. The above paragraphs are instructive and we are tempted to make the following observations :—

(*a*) While it is not possible to determine from the data available the precise extent of unemployment among the educated classes, it cannot be denied that the products of schools and colleges experience a growing difficulty in finding occupation. Yet the number of unemployed educated persons cannot be said to be very large, at least in comparison with some of the other provinces.

(*b*) Considering the economic and educational backwardness of the province, the number of educated people and the annual output from schools and colleges cannot be regarded as being unreasonably excessive.

(*c*) An inadequately exploited province requires leadership for its economical and educational expansion and that leadership can best be provided by the products of schools and colleges. Unemployment among educated persons is due, not so much to excess of supply from schools and colleges, as to the lack of adequately organized life in the province for the purpose of its economic exploitation, educational betttermcnt and general social amelioration. To give but one example, if even a part of the educational demand of this province were realized, all unemployed educated persons in it could be provided with employment.

20. It has often been suggested that one cause for the unemployment obtaining amongst educated people is the predominatingly literary form of education imparted in the schools and colleges. This contention cannot bear much justification. There is little ground for believing that, had the education imparted in schools and colleges been predominatingly practical instead of literary, the extent of unemployment among the educated classes would have been different. It cannot be denied that, in the past, the literary form of education imparted in schools has helped its pupils in securing a fairly wide range of employment. Times have now changed and unemployment prevails not only among those who have received a literary education but also among those who have received a practical training in the schools.

21. Products of Vocational Institutions.—It is unfortunate that full information regarding the employment of the students from the schools of handicrafts is not available. Yet it is possible to form some idea of unemployment among vocationally qualified persons from the following statistics :—

Government School of Handicrafts, Nagpur.

Year.	Carpentry.	Smithy.	Mochi.	Total number of pupils who have passed out of Schools of Handicrafts.	Appointed as Assistant Instructors direct from the school in urgent cases.	Employed by local factories and mills.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
From 1916 to 1926.	118	122	36	276	20	49
1927 ..	13	8	..	21	..	3
1928 ..	13	10	..	23	..	4
1929 ..	16	11	..	27	..	2
1930 ..	21	20	..	41	..	6
1931 ..	20	17	..	37	..	3
1932 ..	17	16	..	33	..	3
1933 ..	16	15	..	31	..	7
1934 ..	13	12	1	26	..	3
1935 ..	18	18	5	41	..	5
1936 ..	15	18	6	39	..	..
Total ..	280	267	48	595	20	85

Year.	Employed in railway workshops.	Employed in Gun Carriage Factory in Jubbulpore.	Started in business.	Believed to have gone back to their villages.	Working locally.	Not heard of.	Died.
(1)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
From 1916 to 1926.	22	4	25	54	44	51	7
1927 ..	6	..	..	..	9	3	..
1928 ..	..	..	1	8	4	5	..
1929 ..	1	..	2	4	10	7	..
1930 ..	5	..	2	11	5	10	..
1931 ..	1	..	..	3	10	19	..
1932 ..	3	..	2	5	7	13	..
1933 ..	..	..	1	12	2	8	1
1934 ..	3	..	..	11	3	3	..
1935 ..	5	..	5	4	6	15	..
1936 ..	..	..	..	..	..	..	..
Total ..	46	4	38	112	100	137	8

1928, one pupil awarded scholarship in lacquer work in wood at Lahore. 1929, one enlisted in Central Provinces Police. 1930, one enlisted in Central Provinces Police and one appointed as Instructor at Rajkumar College, Raipur. 1931, one enlisted in Central Provinces Police. 1934, three working in sugar mills. 1935, one State Scholar working at Raigarh State

22. The above table should be interpreted in the light of two facts :—

(*a*) the products of the school do not expect, nor do they obtain, higher salaries than those for ordinarily skilled labour, and

(*b*) the number of handicraft schools in the province is not very large and the vocations taught in them are varied and represent the major demands of society.

23. The conclusion is inevitable that unemployment faces vocationally trained pupils, even though the number of institutions is small and instruction is only imparted in the humbler vocations for which the demand is largest.

24. The Government Engineering School, Nagpur, which is the only school of its type in this province, has pursued a cautious policy of restricting the admissions to such numbers as can be absorbed in suitable vocations available in the province. The school passes out about 15 candidates in Civil Engineering (Overseer and Sub-Overseer), 10 in Mechanical Engineering and F 3 in Automobile Engineering annually. All trained engineers from the school are reported to have been employed, some of them in temporary vacancies. The civil engineering students are generally employed in the Public Works Department, Central Provinces and Berar, and the mechanical and automobile engineering students in private mills and factories.

25. It is often asserted that agriculture is the chief industry of the province and is likley to provide a vast scope for employment to persons trained in agriculture. It is no doubt true that agriculture is the main source of income of the vast majority of the people in this province. Yet even in this sphere, graduates in agriculture have experienced much difficulty in obtaining suitable occupation. In this connexion the Principal, College of Agriculture, has supplied the following information :—

Statement showing the post-college careers of students who have passed through the Agriculture College, Nagpur, up to 1932 *and graduates in agriculture employed in various departments* (1932—37).

In the Agriculture Department, Central Provinces ..	181
In other Agriculture Departments in British India ..	44
In other Government Departments in the Central Provinces.	27

In Indian States Agriculture Departments ..	51
In other Government Departments, outside the Central Provinces.	7
Private Agricultural employment ..	10
In private farming ..	43
As Estate Managers ..	12
As State Managers ..	2
Village Uplift Work ..	1
Consolidation of Holdings ..	1
Postgraduate studies ..	4
Practising Pleaders ..	2
In other trades, in some cases linked with agriculture ..	14
Unknown (in some cases probably farming) ..	34
Unemployed ..	7
Total ..	440

26. The condition of unemployment among the graduates in agriculture reached such a stage that the university decided to accede to their request for admission into the law classes and to permit them to take their M. A. in Economics in the Faculty of Arts.

27. Utility of mere Educational Reforms to solve unemployment problem.—It is safe to conclude from the conditions of unemployment obtaining among persons qualified in the Agricultural College and the Schools of Handicrafts that unemployment is not limited merely to students who have received a mainly literary education. It prevails also among those who have been trained in various types of vocational institutions. This situation awakens serious doubts in the method of remedying unemployment by resorting to a reconstruction of the educational system so as to divert the growing volume of students into vocational or technical schools according to their special aptitudes. This method has been tried in Western countries and has proved a failure. Altering the educational qualifications of the unemployed without decreasing their number will not solve the problem. There is much ground for the contention made by a writer in the Year Book of Education for the year 1935 that the "illusion that there exists some 'pre-determined harmony' between the volume of ability and the absorptive power of the vocations has utterly collapsed".

28. In view of the above considerations, the Committee finds it difficult to accept the view that the existing system of education in this province and, particularly, the predominatingly literary character of instruction imparted in the schools and colleges, is responsible for the growing unemployment among the educated classes. Unless more "jobs" are created, vocational education will not remove unemployment, as one of its chief aims is to attain greater efficiency in producing the things that we want. Unless outside markets are found the greater the efficiency of our vocational education, the less will be the total amount of work for all. This will naturally lead to more unemployment.

29. Unemployment obtains not merely among educated persons nor is it the characteristic of the economic condition of this province alone. It is a world-wide problem and is, perhaps, due to the international economic maladjustment. Whatever be the reasons for the prevailing unemployment among the educated classes, it is vain to seek its causes in the realm of education. The problem of unemployment is not created by the existing system of education and its remedy need not be sought in any educational reform. Education cannot influence the natural resources of the country, climatic conditions and a number of other factors upon which the development of industry depends. The Committee is convinced that the programme of educational reconstruction suggested by the Central Advisory Board of Education or any other similar programme provides no panacea for the prevailing unemployment. We lay special emphasis on this contention lest we should awaken a hope which is incapable of realization through mere educational reform.

30. We are, therefore, constrained to observe that the condition of unemployment need not influence our attitude towards educational reconstruction and we express ourselves in favour of the following contention of a writer in the Year Book of Education, 1936 :—

> "We, teachers, should emphatically, clearly and unmistakably declare that the solution of this problem is impossible within the compass of any educational measures. Education should decline to be saddled with the odium which may be called forth by the breakdown of impossible experiments."

31. We hope, on the contrary, that the remedy of most of the problems of education will depend on a satisfactory solution of the problem of unemployment. If all

the unemployed element in the province is harnessed to fruitful schemes of economic advancement, it will be possible to realize the many schemes of educational progress which confront us as more funds will become available and opportunities for the employment of educated people will follow in the wake of economic advancement.

32. Frequency of public examinations.—The Committee is alive to the evils of too frequent examinations suggested in paragraph 3 (1) (*d*). It is not possible, however, to suggest further restriction in the number of public examinations in this province. What may be necessarey perhaps, is an investigation into the method of conducting the existing examinations. We do not, therefore, feel that the problem of restricting the frequency of examination should be considered when suggesting schemes for educational reform in this province.

33. Over-age pupils.—In respect of the suggestion contained in paragraph 3 (1) (*e*), we find that the number of over-age pupils in the senior classes of high schools in this province is very large. We are anxious, however, that this circumstance should not be interpreted to mean that the senior classes in high schools are flooded by pupils who are incapable of following the courses of instruction imparted to them. The presence of a large number of over-age pupils is not peculiar to the senior classes of high schools alone ; it obtains in all classes of the primary and middle stages also. The following statistics, which relate to 1932, indicate the position in respect of pupils in various classes :—

Class		Total number of boys	Number of boys over-age	Percentage
I	..	160,702	62,741	39.04
II	..	88,921	45.437	51.09
III	..	74,189	43,593	58.75
IV	..	64,764	43,211	66.72
	Total ..	388,576	194,982	50.17
V	..	16,835	11,162	66.30
VI	..	13,055	9,112	69.79
VII	..	11,866	8,719	73.47
VIII	..	5,881	3,948	67.13
	Total ..	47,637	32,941	69.15
IX	..	3,192	2,032	63.65
X	..	2,724	1,685	61.85
XI	..	2,197	1,328	60.45
	Total ..	8,113	5,045	62.18

34. These figures prove that there is a very large number of over-age pupils in all classes, the largest percentage being in the middle school stage. It will be wrong, therefore, to infer that the large number of over-age pupils in the senior classes of high schools represents the number of pupils who are incapable of following the education imparted at this stage and who should be diverted into institutions for specialized practical instruction after the completion of the lower secondary school stage. On the contrary, the number of over-age pupils is so overwhelmingly large and so universal as to arouse the suspicion that the courses of studies and methods of instruction in the schools are not suited to the experiences and interests of pupils of the ages for which the instruction is intended. It is possible, perhaps, that the number of over-age pupils will steadily decrease if the courses of instruction imparted to them at various stages of instruction are framed with due regard, on the one hand, to the special requirements of the pupils of that age, and, on the other hand, to the realities of the environment in which they live. We feel that it would be more desirable to experiment by making the courses of general instruction obtaining in the secondary schools more humane and truly liberal than they are at present, rather than to embark upon the expensive and risky undertaking of providing more schools for specialized practical education than are warranted by the economic needs of the province. We may discover after careful investigation that liberal education in its true sense has not been given a fair trial in the present system of education and that there is abundant need of humanizing education, especially in the lower secondary stage.

35. Overcrowding in Universities.—We are conscious of the presence in the University of a large number of students who are unable to benefit from the courses of instruction imparted in it. In this respect it is relevant to consider the results of the deliberations of the Universities Conference, attended by representatives of the leading universities of the world, held at Oxford in July 1934, which discussed the problem of overcrowding in Universities. Several methods for limiting admissions to the universities were discussed. It was not possible for the Conference to arrive at any principle for discriminating amongst the candidates for admission to the universities and for shutting its portals to those who, by some arbitrary method of selection, were considered to be unsuited for education imparted in the colleges. The Conference agreed that the fixation of the maximum number of students was,

in principle, undesirable as indicating too narrow a view of the purpose of university education. While there may be adequate grounds for limiting the number of admissions to the technical and professional faculties, any limitation, for non-academic reasons, of the number of those seeking university education for mainly cultural purposes, was to be deprecated. The general feeling of the Conference was against any action by the universities which would tend to restrict admission to secondary schools.

36. The solution of the problem of overcrowding in universities does not lie within the competence of the universities nor of those who are responsible for the educational system. Overcrowding is the result of the prevailing unemployment the cure of which does not rest with education. Overcrowding in the universities is a mere symptom of the shrinkage of economic opportunities because those who find no work "practise climbing on the mountains of education".

37. In view of the above considerations, we are of opinion that the schemes of educational reconstruction in this province should be inspired more by the desire of bringing the educational system into conformity with the special requirements of the students of various ages in different school stages and of the varied types of environments in this province, rather than by considerations of an extraneous nature over which education has little or no control.

CHAPTER III.—THE SYSTEM OF EDUCATION IN THIS PROVINCE AND THE SCHEME OF EDUCATIONAL RECONSTRUCTION PROPOSED BY THE CENTRAL ADVISORY BOARD OF EDUCATION

38. The system of education in this province.—The system of education in this province consists of the following well-marked stages :—

The main current of literary education.—(*a*) *The primary stage.*—The primary stage of education provides a four years' course and includes classes I to IV. The courses of studies for this stage are prescribed by the Department of Education and are intended to suit children of the ages of 6 to 10. Promotions from class to class are made by the head masters of schools and the examination of class IV constitutes the Primary Certificate Examination. This is the first public examination which the pupils have to face and is held *in situ* by the Deputy Inspectors of Schools.

(*b*) *The Middle School Stage.*—Education at this stage is provided in two broad types of institutions. They are—

(i) The vernacular middle school, which comprises classes V to VII. The courses of instruction for these schools are prepared by the High School Education Board and are meant for pupils between the ages of 11 to 14. No uniform practice throughout the province of conducting the examination of the final class of vernacular middle schools is followed. These schools are mainly confined to rural areas.

(ii) The anglo-vernacular middle school which consists of four classes, V to VIII. The courses of studies for these schools are prepared by the Central Provinces High School Education Board and are meant to suit pupils of the ages of 11 to 15. At the completion of the course the pupils have to appear for a public examination known as the High School Entrance and Scholarship Examination which is held by the Department of Education. Successful pupils are entitled to enter the High School stage.

(*c*) *The High School stage.*—This stage consists of three classes IX to XI. Normally, pupils in these classes should be of the ages of 15 to 18. The courses of studies for this stage are prescribed by the High School Education Board. At the termination of the course, the High School Certificate Examination is held by the Board and success in this examination qualifies the pupils to enter the University stage.

(*d*) *The University stage.*—This stage includes the following :—

(i) The Intermediate Courses of two years in Arts Science or Agriculture, followed by

(ii) The B. A. or B. Sc. or B. Ag. pass course of two years or B. A. and B. Sc. (Hons.) course of three years ; and

(iii) The M. A. or M. Sc. course of two years for B. A. or B. Sc. (pass) students respectively. Students who have passed the honours examination in arts or science are entitled to the degrees of M. A. or M. Sc., respectively, without any further examination.

39. The provision of diversions into institutions for vocational, technical and professional training.—The above scheme indicates the main line of literary education. The educational system of the

province also includes vocational, technical and professional institutions of different kinds and grades. They are enumerated below :—

(i) *Handicrafts.*—Pupils who have passed the primary stage and reached the age of 15 may join any of the schools of handicrafts for vocational education in carpentry, smithy, manufacturing leather articles, or tailoring. The duration of the course is three years. Language and arithmetic are taught in addition to the vocational subjects.

(ii) *Training of police constables.*—Selected constables who have passed the Primary Certificate Examination, are admitted to the two Police Constables' Training Schools at Nagpur and Jubbulpore, respectively. These schools hold two sessions per annum and 100 candidates are admitted each session for training.

(iii) *The training of teachers for vernacular schools.*—Students who have passed out of the vernacular middle schools are eligible for enrolment in normal schools which train teachers for primary and vernacular middle schools. Admission to Government Normal Schools is made after a competitive test examination. The courses of training for primary school teachers extend over two years and a third year course is intended for those who are selected to teach in vernacular middle schools.

(iv) *Engineering education.*—A limited number of students who pass the High School Certificate Examination are admitted to the Government Engineering School, Nagpur. This school provides instruction in three years' courses in civil, mechanical and automobile engineering and prepares students for the Diploma in Engineering conducted by Nagpur University. The school also holds two short courses annually for oil engine classes.

(v) *Medical education.*—Students possessing the High School Certificate are admitted to the Robertson Medical School at Nagpur after qualifying in the Admission Test Examination held by the school authorities. The school provides a four years' course which qualifies students to become assistant medical officers.

(vi) *The training of teachers for anglo-vernacular middle schools.*—Students who have passed the High School Certificate Examination, served as teachers for some time and shown satisfactory work as teachers in schools are selected for this training which is mainly provided in the Spence Training College, Jubbulpore, while a few women candidates take a course in the Howbagh Training College for Women

at Jubbulpore. The course is of two years' duration, at the completion of which the Nagpur University holds an examination for the Diploma in Teaching.

(vii) *The Training of Police Sub-Inspectors.*—Students who have passed the High School Certificate Examination may on selection be admitted to the Police Officers' College at Saugor. The enrolment in the college varies from 50 to 55 each year. The Departmental candidates get stipends of Rs. 40 per mensem and successful candidates are appointed as Sub-Inspectors of Police.

(viii) *Training of teachers for high schools.*—Graduates of the university who have done good work as teachers are selected for a one year's course of training in the Spence Training College, Jubbulpore. At the termination of the course the students appear at the examination for degree of Bachelor of Teaching held by the Nagpur University.

(ix) *Law.*—Graduates of the university are eligible for admission to a Law College. After two years' training, they are entitled to appear at the examination held by the university for the LL. B. degree.

40. The following chart gives an idea of the main current of literary education in the existing scheme of education and the bifurcations provided at the completion of suitable stages of education :—

Main current of general education.	Existing diversions to Vocational, Technical and Professional Institutions.
1. The Primary School Stage— Classes I, II, III and IV.	
Completion of the Primary Stage ..	Schools for Handicrafts— First year .. } Smithy, carpentry, leather Second year .. } work, tailoring along Third year .. } with reading, writing and arithmetic. Fourth year .. Continuation classes. Police Constables' Training School.
2. The Middle School Stage—	
(i) Vernacular Middle Schools— Classes V, VI and VII.	
Completion of the Vernacular Middle School Stage.	Normal Schools— First year .. } For primary school Second year .. } teachers. Third year .. For vernacular middle school teachers.
(ii) Anglo-Vernacular Middle Schools— Classes V, VI, VII and VIII.	
3. The High School Stage— Classes IX, X and XI.	
Completion of the High School Stage ..	1. Engineering School— Civil: First year. Second year. Third year. Mechanical: First year. Second year. Third year. Automoble: First year. Second year. Third year.

Main current of general education	Existing diversions to Vocational, Technical and Professional Institutions.
	2. Diploma in teaching, for teachers in anglo-vernacular middle schools— First year. Second year.
	3. Medical School, Nagpur, for four years.
	4. One year course in normal schools for vernacular middle school teachers.
	5. Police Training College for Sub-Inspectors of Police.
4. The University Stage— Intermediate Stage (Arts, Science (Agriculture)—(2 years). B. A., B. Sc., B. Ag. (Pass)—(2 years). B. A., B. Sc. (Honours)—(3 years).	
	1. Law—LL. B. Examination—2 years' course.
	2. Bachelor of Teaching Examination—1 year's course for High School teachers).
M. A. and M. Sc.—(2 years course).	

41. The system of education in this province compared with the Central Advisory Board's scheme of Educational Reconstruction.—A comparative study of the system of education in this province and the scheme suggested by the Central Advisory Board of Education indicates an unmistakable parallelism in general outline and structure. The resemblance between the two is especially marked in the following respects :—

(i) As suggested in paragraph 3 (2), the system of education in this province does not merely prepare pupils for professional and University courses, but also provides diversions into separate vocational institutions. Admission to separate vocational schools is voluntary and depends upon the decision of the student and his parent. It is outside the scope of a purely educational system to compel the diversion of pupils to occupations or to vocational institutions.

(ii) In accordance with the suggestions contained in paragraph 3 (3), the system of school education in this province consists of three separate stages, *viz.*, the primary, the lower secondary (or the middle school as it is known in this province) and the higher secondary or high school.

(iii) The aim of primary education in this province has been recently defined by the Provincial Government in the following terms. It will be seen that the definition includes the one suggested by the Central Advisory Board of Education in paragraph 3 (3) (*a*) :—

" Primary Education should aim at ensuring literacy of a type such that it will not easily lapse after the pupil

has left school. It should lead to the formation of healthy and hygienic habits of body and mind and should also provide instruction in subjects which will give the pupil a living interest in his environment, and provide useful and attractive occupation for his leisure hours."

(iv) The aims of lower secondary education have not been explicitly defined, yet these schools have served definite purposes in the system of education which are not very different from those suggested in paragraph 3 (3) (*b*).

(v) The purposes assigned to the high school stage of education in paragraph 3 (3) (*c*) are almost identically those which are served by the high schools in this province.

(vi) Most of the high schools prepare students for admission to the University as suggested in paragraph 3 (3) (*c*) (i).

(vii) The existing normal schools for the training of teachers for primary and vernacular middle schools can be regarded as serving the objective suggested in paragraph 3 (3) (*c*) (ii).

(viii) Three or four high schools have recently introduced instruction in agriculture as an optional subject for the High School Certificate Examination. Though these high schools do not claim to be agricultural institutions, yet they serve the purpose suggested in paragraph 3 (3) (*c*) (iii). The High School Education Board has recently appointed a committee to prepare a syllabus suited to rural high schools.

(ix) There are no high schools in this province which especially undertake to provide clerical training. There are a fair number of high schools, however, which teach the commerce groups of subjects, including shorthand, type-writing, book-keeping and précis writing. These subjects provide the necessary training for those who seek clerical posts and thus satisfy the need suggested in paragraph 3 (3) (*c*) (iv).

(x) There are no high schools in which instruction in selected technical subjects, as suggested in paragraph 3 (3) (*c*) (v), is provided. This is due to the general industrial backwardness of the province.

(xi) The Primary Certificate Examination in this province has been described, in paragraph 38 (*a*), as the first public examination which pupils have to face, while the Central Advisory Board of Education suggests in paragraph 3 (4) that the first public examination should

take place at the end of the lower secondry stage. This difference is more apparent than real. The Primary Certificate Examination is ordinarily held *in situ* by a Deputy Inspector of Schools who is a frequent visitor to the school and is familiar with the staff and the pupils. This manner of holding the Primary Certificate Examination strips it of all the awe which attaches to a public examination. For a long time to come, this practice will have to continue because, for a very large majority of pupils, the completion of the primary stage marks the termination of their educational career. Experiments, however, are being conducted in order to improve the method of conducting the primary certificate examination. In the strict sense of the term, the first real public examination encountered by the pupils is at the completion of the anglo-vernacular middle school stage, *viz.*, the High School Entrance and Scholarship Examination, and the intention of paragraph 3 (4) is thus fully satisfied.

(xii) There is no special examination instituted in this province for candidates who desire to join the clerical services of Government and local bodies. The Provincial Government, however, holds an examination in typewriting and shorthand and awards certificates to successful candidates. There is no age limit prescribed for this examination. This, along with the provision in the syllabus for the commerce groups of subjects referred to in sub-paragraph (ix) above, appears to have met the needs of the employers in this province and it has been wise, perhaps, not to go ahead of the public demand.

42. The above comparison indicates that in broad principle and general outline the system of education in this province is in accord with the scheme of educational reconstruction proposed by the Central Advisory Board of Education and that the differences between the two, where they exist, are due to the special local conditions and demands. We are, therefore, inclined to the view that the readjustment of the system of education in this province, in order to make it accord with the scheme of educational reconstruction suggested by the Central Advisory Board, will not necessitate radical changes and that any reforms, which are deemed to be necessary in the light of the altered conditions of life, will need to be confined to the frame work of the existing system of education in this province. We are also aware of the importance of defining the specific aims of the various stages of education, as has already been done in the case of primary education.

PART II

THE NATURE OF GENERAL EDUCATION TO BE IMPARTED IN THE LOWER SECONDARY STAGE WHICH WILL CONSTITUTE A SUITABLE FOUNDATION EITHER FOR HIGHER EDUCATION OR FOR SPECIALIZED PRACTICAL COURSES

CHAPTER IV.—A SURVEY OF LOWER SECONDARY EDUCATION IN THE PROVINCE

43. Increase in the demand for lower secondary education in the province.—The Anglo-Vernacular Middle Schools.—

(*a*) *Increase in numbers.*—A marked growth in the demand for anglo-vernacular middle school education has been witnessed in this province and the following tables indicate the rise in the number of institutions under different managements and pupils in them :—

Year	Management				
	Government	Local bodies	Aided	Unaided	Total
1912 ..	38	32	29	4	103
1917 ..	42	50	51	10	153
1922 ..	52	41	51	6	150
1927 ..	51	38	55	12	156
1932 ..	51	51	79	8	189
1936 ..	47	54	79	25	205
Increase since 1912 ..	24%	69%	172%	525%	99%
The number of pupils in these institutions are—					
1912 ..	6,029	3,460	2,567	183	12,239
1917 ..	5,502	5,673	4,420	563	16,158
1922 ..	5,757	4,042	3,371	317	13,487
1927 ..	7,992	7,711	7,072	736	23,511
1932 ..	6,775	9,910	9,795	742	27,222
1936 ..	6,640	11,035	11,102	2,316	31,093
Increase since 1912 ..	10%	219%	332%	1,165%	154%

(*b*) *Increase in the cost of education.*—The growth in the number of anglo-vernacular middle schools has led to an increase in expenditure on them which is indicated below :—

Year	Sources from which expenditure is met				
	Government funds	Local bodies	Private agencies	Fee income	Total
	Rs.	Rs.	Rs.	Rs.	Rs.
1912 ..	1,43,310	78,894	41,111	65,385	3,28,700
1917 ..	2,03,502	1,46,252	50,563	1,40,112	5,40,429
1922 ..	4,57,920	1,11,965	79,330	1,88,305	8,37,520
1927 ..	4,64,459	85,542	80,996	3,89,682	10,20,679
1932 ..	4,96,386	77,293	1,07,298	4,97,991	11,78,968
1936 ..	5,14,279	95,652	1,35,161	5,49,953	12,95,045
Increase since 1912.	259%	21%	229%	741%	294%

(*c*) The cost of educating each pupil in anglo-vernacular middle schools in 1934-35 was Rs. 40-12-10. The sources from which this was met are as follows :—

	Rs. a. p.	Percentage to total
(1) Government funds ..	16 10 11	40.88
(2) Board funds ..	2 14 3	7.09
(3) Fees ..	17 8 4	42.95
(4) Other sources ..	3 11 4	9.08
Total ..	40 12 10	

(*d*) *The provision compared with that in some of the other provinces of India.*—The following table compares the position in regard to the provision of English Middle Schools in this province with that in some of the other provinces in India in the year 1934-35 :—

Province	Number of anglo-vernacular middle schools	Enrolment in anglo-vernacular middle schools	Average area in square miles per anglo-vernacular middle school	Percentage of number of pupils in anglo-vernacular middle schools to the total population
(1)	(2)	(3)	(4)	(5)
1. Madras ..	178	23,333	799	0.04
2. Bombay ..	393	24,459	314	0.11
3. Bengal ..	1,816	160,399	42	0.32
4. United Provinces ..	103	12,612	1,031	0.02
5. Punjab ..	215	44,569	464	0.18
6. Central Provinces and Berar.	197	29,102	507	0.18

Province	Number of primary schools for each anglo-vernacular middle school	Number of anglo-vernacular middle schools for each high school
(1)	(6)	(7)
1. Madras ..	246	0.46
2. Bombay ..	33	1.54
3. Bengal ..	25	1.55
4. United Provinces ..	182	0.47
5. Punjab ..	26	0.63
6. Central Provinces and Berar ..	21	2.56

44. The vernacular middle schools—(*a*) *Increase in the numbers.*—The following table indicates the increase in the number of vernacular middle schools in the province under various managements :—

Year	Management				
	Government	Local bodies	Aided	Unaided	Total
1912 ..	2	226	15	1	244
1917 ..	6	196	13	3	218
1922 ..	11	290	13	3	317
1927 ..	11	314	6	4	335
1932 ..	10	340	8	1	359
1936 ..	7	381	3	2	393
Increase since 1912 ..	250%	69%	80%	100%	61%

The figures in the annual reports showing the number of pupils in vernacular middle schools are misleading as they include the number of pupils in the primary department of vernacular middle schools. Actual figures of enrolment in the middle departments of vernacular middle schools are available for the years 1932 and 1936 only. In 1932 there were 18,829 pupils in the vernacular middle classes and in 1936 they were 20,214.

(*b*) *Increase in the cost of education.*—The figures in the annual reports showing the expenditure in the vernacular middle schools are also misleading, as they include the cost of education in the primary departments attached to vernacular middle schools. The cost of education in the vernacular middle school departments can be worked out approximately by deducting from the total cost, which is shown in the tables on vernacular middle schools, the cost of education of the pupils in the primary department of these schools calculated on the basis of the average cost per pupil in the primary schools of the province. The approximate cost thus arrived at is shown below :—

Year	Total cos	Average cost of each school	Cost of educating each pupil in the vernacular middle schools
	Rs.	Rs. a. p.	Rs. a. p
1932 ..	4,32,831	1,205 10 6	23 13 6
1936 ..	3,77,085	959 8 0	19 9 1

(*c*) *The provision of vernacular middle schools as compared with some of the other provinces in India.*—The position of the vernacular middle schools in this province as compared with that in some of the other provinces in India in the year 1934-35 is shown in the following table :—

	Province	Number of vernacular middle schools.	Enrolment in vernacular middle schools.	Average area in square miles per vernacular middle school.	Percentage of pupils in vernacular middle schools to total population.	Number of primary schools for each vernacular middle school.	Number of vernacular middle schools for each high school
1.	Bengal ..	46	3,218	1,685	0.006	991	0.03
2.	United Provinces ..	753	87,640	141	0.18	24	3.5
3.	Punjab ..	3,090	393,345	32	1.66	1.82	9.1
4.	Central Provinces (1936 figures).	393	76,396	254	0.49	10.8	5.0

CHAPTER V.—THE CHARACTERISTIC FEATURES OF LOWER SECONDARY SCHOOLS IN THE PROVINCE

45. It has already been indicated that the scheme of educational reconstruction proposed by the Central Advisory Board of Education approximates in principle and structure very closely to that which has been in operation in this province for over twenty-five years and that any scheme of reform should be within the existing framework. The reorganization should, therefore, be based on an examination of the existing middle schools, on investigation into their defects and on the new demands manifested by the altered conditions of social and economic life.

46. *Function of the existing types of middle schools.*—A brief description of the functions of the existing anglo-vernacular and vernacular middle schools will not be out of place.

(*A*) *The anglo-vernacular middle schools.*—(1) The objectives of these schools have never been defined. They have served only one purpose, *i.e.*, to prepare pupils for the higher secondary course. The courses of instruction in them have, therefore, been inevitably literary in character. Drawing, no doubt, has formed a part of these courses from the earliest days and, since 1918, attempts have been made to include certain elements of practical training

through the introduction of manual training in a few middle departments attached to high schools for boys and of domestic science for girls. The full value of the provision for practical instruction has not been realized, however, for the following reasons—

(*a*) the provision of manual training is limited to a comparatively small number of schools ;

(*b*) there is no examination prescribed for drawing and manual training. There has been an obvious disinclination to acquiring proficiency in subjects which have no immediate value in a public examination ; and

(*c*) the instruction in the practical subjects, which are treated as if they are unrelated to other subjects of the curriculum, is given from a narrow point of view.

There is, however, one notable exception which should be mentioned. At Powarkheda, there has been for some years a well established agricultural anglo-vernacular middle school which has provided practical training in agriculture, in addition to the regular anglo-vernacular middle school course, to the sons of malguzars and tenants. This school was originally a primary school and it was raised to the vernacular middle status in order to include the teaching of agriculture. The agricultural vernacular middle school failed in its turn but was given new life when converted into an anglo-vernacular middle school. The practical training imparted in agriculture in this school is reputed to be of a high standard and a suitable amount of manual work by the pupils is made possible by the fact that the school is a residential one. It is claimed that the training of the sons of malguzars along with those of tenants has cultivated in both the correct attitude towards each other and it is hoped that a proper understanding between these two litigant classes will result in consequence. Another school of the Powarkheda type has been started recently at Betul Bazar and its progress is being carefully watched. One difficulty has been experienced, however, in connexion with the Powarkheda type of school and that is the absence of an agricultural high school to bridge the gulf between an agricultural middle school and the College of Agriculture. Some high schools have, no doubt, been recognized for the teaching of agriculture as an optional subject in the high school classes. The fact remains, however, that there is a vast difference in the principles

on which the teaching of agriculture is based in these high schools and in the schools of the Powarkheda type. In the former agricultural classes are added to the high school for those who offer agriculture as an optional subject for the High School Certificate Examination. The latter is predominatingly an agricultural school in which agricultural traditions have been laid down by the Agricultural Department amidst the surroundings of a Government agricultural farm. The Principal of the Government Agricultural College, Nagpur, has expressed certain fears regarding the addition of agricultural classes to high schools which are, he says, " far too closely associated with towns to produce the desirable results envisaged". While he is prepared to watch the results of this experiment, he suggests that " the opposite side of the experiment should be given a trial by introducing two high school classes into the middle schools at Powarkheda and Betul Bazar". Powarkheda is mentioned as an existing type of the lower secondary school which provides a foundation both for the higher secondary course and for the specialized training in agriculture. In some quarters, the opinion is held that the popularity of the Powarkheda school is mainly due to the fact that it provides instruction in English.

(*B*) *The vernacular middle schools.*—(1) The objectives of the vernacular middle schools have also never been defined. They have, however, served one very important and, probably, the only purpose, *viz.*, to provide recruits for normal schools who will ultimately become teachers in primary and vernacular middle schools. During recent years recruitment to the normal schools has been greatly curtailed for various reasons and the number of these schools in the province has been consequently reduced. Owing to this restriction in the only outlet, the vernacular middle schools have been seriously affected and they have tended to become blind alleys. Attempts have been made to safeguard their existence by ascribing to them new purposes and by making minor adjustments in the curriculum. Instruction in English has been introduced in some of them in order to enable the pupils to join the VIII class of the anglo-vernacular middle schools after completing the vernacular middle school course and, ultimately, to qualify for admission to the high schools. Advantage of this has been taken by a large number of vernacular middle schools, specially in Berar. The experience of the last few years, however, has shown that no outlet of real value has been provided by this method.

Another alternative has been provided by the introduction of instruction in agriculture in some of the vernacular middle schools. Pupils who qualified from such schools were expected to take to farming. Speaking generally, the teaching of agriculture in vernacular middle schools has not proved to be very successful because the experiment has been confined to a limited number of schools. The question is being re-examined by Government and a scheme for the training of a large number of vernacular middle school teachers in agriculture is under consideration. In this way, it is hoped that many more middle schools will take up this subject and thus help to turn out a larger number of pupils prepared to take to agriculture as a vocation.

(2) The method adopted in the Chhattisgarh circle to deal with the products of the vernacular middle school is worthy of special mention. An attempt has been made to modify the curriculum of these schools so that the pupils, on leaving, can be absorbed and adjusted in the economic life of the rural areas. The underlying idea of the rural vernacular middle school syllabus is to bring the vernacular middle school into harmony with its rural setting and to provide instruction in such subjects as will enable the pupils to become useful and productive members of the village community. A definite aim is thus given to the instruction imparted. The syllabus contains an irreducible minimum of instruction in literary subjects together with such knowledge in science and mathematics as is necessary for a practical and useful citizen. In addition to these subjects, the new curriculum includes vocational subjects such as agriculture (practical and theoretical), blacksmith's work, masonry, tailoring, weaving, turning, tinsmith's work and book-binding. These subjects are intimately connected with the economic life of the villager and it is reported that their introduction has aroused much interest in rural areas.

(3) The High School Education Board has taken a further step and has constituted a committee to prepare a syllabus which will prepare students for various occupations at the completion of the middle school course. This committee has not yet concluded its labours.

47. Some characteristic defects of middle school education.—The following are some of the considerations relating to the retardation of progress in lower secondary schools :—

(1) The table given in paragraph 33 of Chapter II of this report indicates the presence of a very large number

of over-age pupils in the middle schools. It has already been suggested that this condition indicates that the courses of instruction prescribed for the middle school stage are not suited to the ages of the students of that stage and to their environments.

(2) It has been already mentioned that the courses of studies for anglo-vernacular and vernacular middle schools have not been framed to serve any clearly defined objective. Aimless education has diffused educational effort and rendered educational planning difficult.

(3) The syllabus of studies for this stage of education involves the study of orthodox academic subjects and is now recognized as being far too wooden and literary in character. The courses of studies are held to be arbitrary in nature and represent the traditional ideas of what the pupils ought to know rather than what suits their capacities and aptitudes and what is of value to them. To a large extent the courses are subservient to the requirements of high school education.

(4) The courses of studies are too formal and bear no relation to the environment of the pupils. It is small wonder, therefore, that the schools lack life, that love for learning is rarely inspired and that cramming attains such huge dimensions.

(5) The nature of preparation demanded by the existing type of examinations, particularly the High School Entrance and Scholarship Examination, also leads to indiscriminate cramming and an almost complete absence of any manifestation of intelligence or initiative by the pupils.

(6) The subjects of practical training such as drawing, manual training and domestic science, which form part of the courses of studies, have not received the importance which is due to them.

(7) There is some evidence in favour of the contention that the present courses of studies do not contain sufficient material to constitute intensive study for a period of four years for the anglo-vernacular and three years for the vernacular middle school course. It is significant that several coaching classes claim to prepare pupils for the whole of the anglo-vernacular middle school course in a much shorter period than that laid down. It may be, perhaps, that the promoters of the coaching classes give to the general public an erroneous interpretation of the nature of the secondary school course. It may yet be worthwhile to revise the courses of studies with a view to making

them fuller and richer and to provide sufficient material of interest and utility so as to engage the pupils intensively during the period of the middle school course.

(8) The teaching in classes is, generally speaking, lifeless and uninspiring and aims merely at preparing pupils for the formal type of examination which terminates the course. Any material, however interesting and useful, which has no strict relevance to the requirements of examination is tabooed. Most of the teachers know that their work will be judged by the percentage of passes at the end of the course and so direct their best energies to that end.

(9) Areas in which compulsory primary education has been introduced and, in particular, large urban areas present another problem. A large number of pupils who pass the primary certificate examination are too young to work as wage-earners and have, through compulsion, acquired the school-going habit. They swell the numbers in the lower secondary schools where they mark time until they are of proper age to get some occupation. These pupils represent peculiar needs which the existing syllabus did not anticipate.

(10) The vernacular middle school course in particular does not provide the necessary general grounding to the pupils to enable them to appreciate and derive the fullest benefit from the professional course of training for teachers imparted in the normal schools. This consideration is of importance as most of the pupils at this stage seek employment as teachers in vernacular middle and primary schools.

CHAPTER VI.—THE AIM OF LOWER SECONDARY EDUCATION

48. Educational reconstruction must be conducted with a view to serving some specific purpose and it is necessary, therefore, to indicate at the very outset the considerations which are essential to the formulation of the specific aims for secondary education in this province. The following issues appear to be of value in defining the goal of lower secondary education :—

(1) The aim of the primary stage of education has been very recently defined by the Provincial Government. We have already mentioned that the aim of this stage of education is consistent with the suggestions made in this connection by the Central Advisory Board of Education. It is necessary, therefore, that the aim of lower secondary

stage education in this province should be consistent with and a systematic development of the aims which have been accepted for the primary stage of education.

(2) It is necessary that the course of instruction at this stage should be framed with due regard to the period of adolescence of most of the pupils at this stage. The children at this stage are normally of the ages of 10 or 11+ to 13 or 14+which is identical with the period of adolescence. In this connection the Hadow Committee Report observes :—

> " With the transition from childhood to adolescence, a boy or girl is often conscious of new powers and interests. If education is to act as a stimulus, if it is to be felt to be not merely the continuance of routine, but a thing significant and inspiring—it must appeal to those interests and appeal to those powers. It must, in short, grow and expand with the growth of those for whom it is designed. And it would do this most successfully, if its successive stages are related to each other in such a manner that the beginning of a new stage in education may coincide with the beginning of a new phase in the life of the children themselves."

(3) It is necessary that the courses of instruction at this stage should be designed strictly from the point of view of a liberal education. This does not mean that the element of practical training should not constitute a part of the course. On the contrary, it is necessary that the treatment of the subject should be related to matters of everyday experience and the provision of a large amount of practical work done under realistic conditions should be considered to be essential.

The view of the Hadow Committee Report on this subejct is significant :—

> " The courses of instruction in the last two years of the post-primary schools, retaining a considerable proportion of pupils up to 15 +, should not be vocational. At the same time the treatment of subjects such as history, geography, elementary mathematics and modern language should be practical in the broadest sense and directly and obviously brought into relation with the facts of every day experience. The practical application of subjects such as elementary mathematics and drawing as adjuncts and instruments of thought in the study of other subjects, *e.g.*, handicraft, geography, elementary physics and biology, might, with advantage, be emphasized. Thus the courses of instruction,

though not merely vocational or utilitarian, would aim at linking up the school work with interest arising from the social and industrial environments of the pupils."

(4) It has often been contended that education at this stage should be predominatingly practical and utilitarian with a view to enabling the pupils to enter occupations available in life outside the school. This view, however, has not much justification and the necessity of designing the courses of education for this stage strictly from the point of view of a liberal education is indicated by the following considerations :—

(*a*) Pupils in the lower secondary school stage are too young to be introduced to purely vocational or prevocational institutions. The opinion held by leading educationists is that vocational or pre-vocational training should not begin before the pupil has attained the age of 13½ + and should be postponed as long after this age as possible.

(*b*) A booklet on Junior Technical Schools published by the Board of Education in England suggests that the age of entry into the vocational schools should be regulated by two considerations. " First, it must be low enough to enable the schools to give a course of adequate length before the pupils are required to enter occupations. Secondly, it must be high enough for the pupils to have formed sufficiently stable tastes and exhibited the necessary capacities to justify so momentous a decision as the choice of a vocation. In some cases, three years is considered to be the suitable length of the course ; two years is found sufficient in others. From this it follows that at present the age of entry is, normally, 13 or 14. In those occupations in which entrants are accepted at a later age than 16, entry to the Junior Technical School is quite properly permitted as late as 15. This is a distinct advantage, since it enables the pupils to carry their general education to a later stage, and to postpone to a more mature age the choice of a career."

(*c*) The liberal education imparted at this stage would be more useful to the pupils in the economic struggle outside the school than a narrow vocational education. The specialized practical training may give the student immediate advantage in the matter of securing occupations over those who have received general education, yet the latter will acquire a greater adaptability which is essential to adjustment in a quickly changing social and economic environment. This point of view was emphasized by a recent paper read

by Mr. K. Chattopadhya, Educational Officer of the Calcutta Corporation, before the All India Education Conference. He. observed :—

> "You are all aware how in Denmark, when competition with the Argentine and Mississipi wheat caused a slump in corn in the middle of last century, the farmers changed over to dry work and pig-farming. The re-organization was taken up and completed smoothly by men of the farmer class. But those who took the lead in this work and averted a national catastrophe were people who had been not to specialized vocational schools but to schools where they had learnt to see life. They were young men who had been to the famous Folk High Schools, formed under the inspiration of Bishop Grundtviz—schools, where young men and women from the country-side learnt not agriculture—but a new interest in life and where they received, not any vocational training but a new stimulus to their thought. It is only fair to add that they had learnt their job as agriculturists previously quite well, along with other training. The need for lifting up from a rut an entire nation is our problem in secondary education to-day. While primary education lays the basis of future training, it is the secondary school where the boy or girl can get that training of body and mind which makes for adaptability, initiative and wide outlook. We cannot, therefore, neglect the cultural aspect in this stage of education in our country. A narrow specialised training may prove of benefit temporarily in special areas. But such an education will not help to save a nation from the stress and changes of the modern world."

(5) Education provided at this stage should provide full scope for the development of each pupil according to his peculiar interests and aptitudes. He should also be afforded ample opportunities for the formation of sound character, the development of healthy physique and the acquisition of a love for creative work and general manual dexterity.

(6) While providing scope for the fullest development of the individual pupil the claims of society and environment should not be lost sight of. As pointed out by the Hadow Committee, "a well-balanced educational system must combine these two ideals in the single conception of social individuality". The importance of the soci a factor in education cannot be over emphasised and it should

be kept in view that "not only the stimulus for learning and the learning process itself are essentially social, but also that learning, to be effective, must draw its content largely from the social order in which it takes place". In this connection the Hadow Report observes, "Sound teaching, it is recognised, must be based on the pupil's interests; and these, though they may in time reach out to the end of the world, begin at home in the challenge of things around him. Where this truth is neglected, a child's study of science, mathematics, of geography and history, and even of literature, may often be little better than a sterile commerce with abstractions; but, where it is intelligently and skilfully applied, it may affect deeply and permanently the growth of his mind and character".

(7) Instruction at this stage should provide wide opportunities for practical work related to the living interest provided by the pupils' environment. The practical work at this stage should be realistic and yet treated as an essential part of a truly liberal education and correlated with other subjects of the curriculum.

49. In conclusion, we are of opinion that all the considerations urged above should be embraced by the definition of the goal of secondary education in this province. We cannot sum up our position better than by endorsing the following passage from the Hadow Committee Report on the Education of the adolescent :—

> " There are three great ends of human life and activity which we trust that our scheme will help to promote. One is the forming and strengthening of character—individual and national character—through the placing of youth, in the hour of its growth, 'as it were in the fair meadow' of a congenial and inspiring environment. Another is the training of boys and girls to delight in pursuits and rejoice in accomplishments—work in music and art ; work in wood and in metals; work in literature and the record of human history which may become the recreations and the ornaments of hours of leisure in maturer years. And still another is the awakening and guiding of the practical intelligence, for the better and more skilled service of the community in all its multiple business and complex affairs—an end which cannot be dismissed as 'utilitarian' in any country and least of all in a country like ours, so highly industrialized, and so dependent

on the success of its industries, that it needs for its success, and even for its safety, the best and most highly trained skilled of its citizens.

The forming and strengthening of character, the training of the tastes which will fill and dignify leisure; the awakening and guiding of the intelligence especially on its practical side—these are the ends which we have had in view".

CHAPTER VII.—PRINCIPLES OF CURRICULUM CONSTRUCTION FOR THE LOWER SECONDARY STAGE

50. The principles of curriculum construction follow directly from the goal defined in the previous section. The following conclusions are, we consider, essential to curriculum construction for the secondary stage of education :—

(i) The nature and the extent of the detailed courses of instruction should be determined after a careful investigation of the mental and physical capacities of the pupils of the age of 10+or 11+to 13+or 14+, particularly in view of the period of adolescence.

(ii) The subjects to be taught in the lower secondary schools should provide a fairly wide field in order to enable the pupil to discover his distinctive bent of mind and special aptitude.

(iii) Broadly speaking, two general types of aptitudes will be manifested at this stage. Some pupils will show a leaning towards subjects of a literary character, while others will favour subjects of practical interest. Provision will be necessary, therefore, for both types of subjects. Yet it should be borne in mind that while the general tendency towards the literary or practical side is to be watched with care, no attempt should be made to emphasise it, for the tendencies displayed at this age may not be those that are finally decisive in life.

(iv) The objective at this stage should be essentially and predominatingly cultural and should be realized by a balanced curriculum including both literary and practical subjects. The practical subjects will act as the correlating agents between education and life and will give pupils practice in the elementary tools of important branches of production. This manual work must be closely related however to academic instruction. For example, the pupils should understand the nature of the material they use for production, the sources from which it is obtained, its value

in industry and the general scientific processes involved in the process of production. In a similar way, life should be introduced into the otherwise dry literary subjects by correlating them with work involving manual activity.

(v) The selection of material for practical work should largely depend upon the local conditions of the school centres. The environment will thus provide the source of interest and inspiration.

(vi) Wherever necessary, continuation classes may be added to the middle schools not only to ease the transition from the school to some occupation or profession but also to equip the pupil better for them.

51. In the light of the above principles, the following suggestions are made regarding the subjects of instruction assuming that there are thirty-nine working periods per week :—

Subjects	Number of periods per week.	
	Classes V and VI Periods	Classes VII and VIII Periods
I.—Indian language (mother-tongue)—		
Grammar ..	1	1
Composition and essay writing ..	2	2
Literature ..	5	5
Total ..	8	8
II.—English—		
Reading and conversation ..	3	3
Grammar and composition ..	2	2
Total ..	5	5
III.—Mathematics—		
Arithmetic ..	2	2
Algebra ..	2	1
Geometry ..	1	1
Total ..	5	4

Subjects	Number of periods per week	
	Classes V and VI Periods	Classes VII and VIII Periods
IV.—History ..	3	2
Geography ..	3	2
Farm economics or economics of industrial production.	..	2
Total ..	6	6
V.—Science ..	2	2
Nature study ..	3	3
Total ..	5	5
VI.—Drawing ..	2	2
Manual training or other practical work.	4	5
Total ..	6	7
VII.—Music (vocal and instrumental)	1	1
VIII.—Physical education ..	3	3
Grand Total ..	39	39

In the actual planning of the curriculum the following considerations will be of value :—

(i) The details of the content of the syllabus in each subject should be correlated with those of the other subjects of study prescribed.

(ii) Practical training in subjects of local importance should replace manual training wherever it is found beneficial to do so. The subjects for practical instruction must emphasise three aspects of the training, *viz.*, skill and precision in manual work, understanding of the material used and appreciation of the scientific theories involved in

the process of production and the aesthetic aspect of the finished product. The following are some of the alternatives for manual training suggested for suitable areas which may be encouraged provided adequately qualified teachers are secured :—

(1) Agricultural farming.
(2) Gardening, vegetable, flower and fruit.
(3) Poultry farming.
(4) Dairy work.
(5) Farming of honey bees.
(6) Cooking.
(7) Dress designing and cutting.
(8) Homecraft.
(9) Fruit preserving and preservation of dried food stuffs.
(10) Weaving of various kinds.
(11) Clock, watch and gramophone repairing.
(12) Laundry, dry cleaning and bleaching.
(13) Care and repairs of automobiles.
(14) Oil pigments, varnishes and paints.
(15) Pottery.
(16) Leather and preparation of leather articles.
(17) Book-binding and care of books.
(18) Block cutting and print making.
(19) Electric wiring, care of the dynamo and radio.
(20) Care of animals.
(21) Simple paper making.

(iii) It is very necessary that in every school suitably equipped workshops or farms or both should be provided to render the instruction realistic and to afford extensive scope for practical work. In regard to instruction in agriculture the Principal, Government Agricultural College, Nagpur, lays special emphasis on this point. He says, " I cannot too strongly emphasise that it is useless to teach agriculture in any way at all, unless there is ample land to give the maximum amount of practical work." Unless this is provided, he thinks, " it is better to leave agriculture severely alone." The same truth applies to all subjects of practical instruction.

(iv) Farm Economics or the Economics of Industrial Production is included among the subjects with a view to giving the pupil a general idea of the organization and distribution of the material he learns to handle and of the principles of co-operative societies. These subjects will also provide him with knowledge of the chief producing agencies in the world in respect of the material with which he is engaged.

(v) The medium of instruction will be, as it is now the mother-tongue of the people among whom the school is situated. In backward areas *the teaching of English should be made optional and the time allowed for it in the scheme proposed may be devoted to more intensive work in language, nature study and practical subjects.*

CHAPTER VIII.—THE REORGANIZATION OF THE LOWER SECONDARY SCHOOLS

52. Reorganization.—The existing types of vernacular middle schools will need radical alterations in the light of the aims of secondary education defined in Chapter VI and the principles of curriculum construction which have been enunciated.

53. Three types of lower secondary schools for this province.—According to the aims and the principles of curriculum construction for lower secondary education, there will be three types of lower secondary schools in this Province :—

(1) Middle schools with suitably equipped workshops or farms or both attached to them.

(2) Middle schools in rural areas which will resemble schools mentioned under (1) above in all respects except that the teaching of English in them will not be compulsory.

(3) Middle schools of the type mentioned under (1) with continuation classes attached to them with a view to providing special training to pupils for occupations locally available.

54. All existing vernacular middle schools will need to be altered so as to conform to one or other of the types of the schools mentioned in paragraph 53.

55. Future of the existing types of the middle schools in the Province.—*Vernacular Middle Schools.*—We are forced to the conclusion that the ordinary type of vernacular middle school has outlived its utility. It has already been pointed out that the restriction in the number of recruits for Normal Schools has deprived these schools of their only purpose. The training imparted in them is of inferior quality and does not provide that necessary grounding which is essential before the student can grasp fully the teaching imparted. Moreover, the courses are rigidly formal and bookish with the result that the student does not acquire any adaptability for occupations

which may be available for him in rural areas. These schools will require radical alteration if they are to conform to one of the types of schools mentioned above.

56. The following changes in the vernacular middle schools will be essential :—

(1) The duration of the course in these schools will need to be extended by one year and brought into line with the 4 years' course in the anglo-vernacular middle schools.

(2) It will be necessary to introduce radical changes in the staffing and equipment of the schools so as to bring the standard of instruction and achievements up to the standard suggested for other middle schools in this Province. If this is done, the distinction which is made at present between anglo-vernacular and vernacular middle schools will vanish.

57. Vernacular middle schools teaching English and agriculture.—The vernacular middle schools teaching English and agriculture have not succeeded in serving the purpose which they were intended to serve. The courses of instruction in Agriculture and English, wherever they have been introduced, have been treated as something extra, and do not constitute a part of the regular course of studies prescribed for the schools. In the absence of a living correlation with other subjects in the curriculum, the instruction in Agriculture and English has been deprived of the value which rightly belongs to it. We are of opinion therefore that these schools should be altered with a view to conforming to one of the types of schools which we have already suggested.

58. Vernacular middle schools in which the new alternative syllabus is introduced.—The Alternative Syllabus for rural vernacular middle schools introduced in these schools is intended to create a bias towards rural occupations. An examination, however, of the courses of the studies embodied in the syllabus shows two deficiencies:—

(1) these schools do not lead to higher secondary education,

(2) they do not prepare students for admission to any of the institutions for specialized practical training.

59. We consider that these courses of instruction included in the alternative syllabus should be remodelled

on the principles suggested in this report and the schools in which it is introduced should be altered so as to conform to one of the types of schools suggested by us.

60. Anglo-Vernacular Middle School at Powarkheda.—We have been impressed by the success of the instruction imparted at Powarkheda and we feel that with minor adjustments of a detailed character, it will conform to one of the broad types of schools which we have pro posed.

61. Continuation classes.—It will be desirable to experiment by attaching continuation classes to some of the reorganized middle schools so as to prepare pupils for occupations which may be locally available. The nature and duration of these courses should be determined after a careful examination of local demands.

CHAPTER IX.—SOME ESSENTIAL CONDITIONS FOR THE SUCCESS OF THE SCHEME

62. We are emphatically of opinion that no scheme of reform will succeed unless the following conditions are satisfactorily fulfilled :—

(*a*) The teachers to whom the operation of this scheme will be entrusted should have a real calling for the profession. They should have a very fair standard of general education and adaptability to practical pursuits. They should receive a high standard of professional education and should be guaranteed security of tenure of their service and a fair standard of living. No scheme of educational reform will ever succeed in the hands of an incompetent or dissatisfied teacher. Moreover, a special class of teachers to undertake different types of practical work will have to be trained.

(*b*) The school should be well equipped particularly in respect of the following :—

(i) An adequate library, containing up to date books suitable for teachers and for students.
(ii) A suitable farm or workshop or both.
(iii) A good garden and appropriate collections necessary for instruction in nature study.
(iv) A laboratory for the teaching of science.

(*c*) In respect of the new spirit behind the proposed scheme it will be necessary for some years, at any rate, to have intensive inspections. Apart from normal inspections by the inspecting officers the nature of the practical work suggested will necessitate inspection and guidance by experts in the practical subjects.

(*d*) It will be necessary to revise the system of examination in order to make it less formal and more liberal and humane than it is at present. This requirement should be treated as the key to the whole success of the scheme. For a long time to come instruction imparted in schools will continue to be subordinated to the needs of the examinations. This is doubtless very undesirable, yet the evil will live so long as public opinion is not sufficiently educated and the outlook of the teacher is not completely altered. Whether we like it or not, the requirements of the examination will continue to loom large and will determine the nature of instruction in the school. It follows that any scheme of educational reconstruction must, in order to be effective, realize its characteristic ambitions through adequate revision of the nature and method of examinations.

(*e*) Each school should introduce a variety of healthy activities in order to develop corporate life among the pupils. The cultivation of liberal sympathies, sensitiveness to the vital needs of those who are less happily placed in life and readiness to co-operate willingly with any organized effort to lessen the suffering of humanity are necessary aspects of a truly liberal education which can be but ineffectively attended to during the class hours. School life must extend far beyond the walls of the class rooms and through manifold organized activities, charge the school atmosphere with a spirit which is essentially moral.

(*f*) It will also be necessary to create a certain amount of propaganda in order to educate the public to appreciate the spirit behind the scheme of educational reconstruction. Public sympathy may be a key to the public purse.


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PART III

THE ATTUNING OF THE COURSES OF INSTRUCTION IN RURAL MIDDLE SCHOOLS TO RURAL REQUIREMENTS

CHAPTER X.—RURAL MIDDLE SCHOOLS AND RURAL REQUIREMENTS

63. Two possible points of view.—The problem of attuning the courses of instruction in rural schools to rural requirements may be treated from two points of view, *viz* :—

(*a*) the preparation of pupils for rural occupations, and

(*b*) the imparting of a general education which will derive its content and inspiration from the rural environment.

64. Our point of view.—According to the view which has been adopted by us in the proposed scheme of the reorganization of rural middle schools, the prime purpose of lower secondary education is not to provide specific training for occupations rural or urban. We have thus recommended that a general education should be given in schools situated in a rural environment. The attuning of the course to rural requirements means, therefore, giving the environment a large part in determining the curriculum and in evolving methods of instruction.

65. While suggesting general principles for preparing courses of instruction in accord with rural needs, we have been anxious to found the courses of instruction on those fundamental experiences and interests which are common to all forms of society, rural or urban and which constitute the basic element of culture. Rural life should undoubtedly provide the source of interest as well as educational material of value to the teacher and the taught, but it would be unwise to limit the whole process of education to matters of mere local rural interest. The advancement of civilization tends to lessen the distinction between rural and urban and it follows that pupils trained from a limited rural point of view will find adjustment to life in a changing society difficult. We have, therefore, considered it necessary to

observe the following principles in attuning the courses of instruction in rural schools to rural requirements :—

(1) The course should provide such practical and vocational subjects as will help the pupils to adapt themselves more readily to the life they will have to lead, if they remain in their village, and to enable them to make the most of the possibilities offered by their environment. The rural surrounding should not provide subjects for any form of specialization or utilitarian training ; it should only provide that source of interest which will correlate the courses of instruction to the life of the community.

(2) The curriculum should include such cultural subjects as will enable pupils to understand and take an interest in life beyond their areas and put them in possession of such arts or cultural pursuits as will serve to enrich their own life and that of their community. At the same time, it will be possible for them to adapt themselves to any change.

(3) The course must be so planned as to make it possible for any pupil to continue his studies in any recognized high school whether rural or urban. This is imperative as the distinction between rural and urban societies must increasingly tend to disappear as civilization advances and existing barriers are removed. This implies that the courses of instruction in lower secondary schools must represent a unified whole attuned, on its practical side and in the method of instruction, to the particular needs of the environment in which the school is placed.

66. In Chapter VI we have discussed at length various considerations which have prevented us from recommending vocational education at the middle school stage. The same considerations apply to the problem of training in rural schools for the purpose of preparing pupils for rural occupations.

67. We have deliberately refrained from offering any detailed curriculum for the middle school stage in general and for rural middle schools in particular and have been content to lay down the broad general principles which should apply to different types of lower secondary schools. We would suggest, however, that a detailed enquiry should be conducted in characteristic rural areas of this Province so as to frame a detailed curriculum on the knowledge thus gained and on the broad principles suggested in different portions of this report.

PART IV

THE EXISTING PROVISION FOR VOCATIONAL EDUCATION AND THE ECONOMIC CONDITION OF THE PROVINCE

CHAPTER XI.—THE EXISTING PROVISION FOR VOCATIONAL EDUCATION

68. Vocational institutions.—The following table gives a list of the Schools for Handicrafts in this Province which impart instruction necessary for occupations requiring the skilled handling of tools. The date of the opening of the school is shown in brackets :—

Name of institution	Subjects taught	Remarks
(1)	(2)	(3)
School of Handicrafts, Nagpur (1913) under Government management.	Carpentry, blacksmith's work, fitting, turning and drawing.	Mochi (boot and shoe making) class attached in 1912; closed in 1924 and restarted in 1932.
Robertson Industrial School, Jubbulpore (1918) under Government management.	Carpentry, blacksmith's work, fitting, turning and drawing.	Tailoring classes added in 1930. Mochi class attached in 1918 and removed to Amraoti in 1928.
Victoria Technical Institute, Amraoti (1918) under the management of the Berar Victoria Technical and Industrial Institute, Amraoti; aided by Government.	Carpentry, blacksmith's work, fitting, turning, foundry and drawing.	
Carpentry School, Dhamtari (1918) under the management of the Christian Mission Societies; aided by Government.	Carpentry and drawing.	
Carpentry School, Saugor (1918) under the management of the Municipal Committee; aided by Government.	Do.	
Industrial School, Chandameta (1920) under the management of Messrs. Shaw Wallace & Co.; aided by Government.	Blacksmith's work, fitting, turning and drawing.	
School of Handicrafts, Akola (1922) under Government management.	Carpentry, blacksmith's work, fitting, turning and drawing.	Tailoring class added in 1930.
Carpentry School, Chanda (1928) under the management of the Christian Mission Societies; aided by Government.	Carpentry and drawing.	
Municipal Industrial School, Khamgaon (1928) under the management of the Municipal Committee; aided by Government.	Carpentry, blacksmith's work, fitting, turning and drawing.	
Carpentry School, Raipur (1930) under the management of the Christian Mission Societies; aided by Government.	Carpentry and drawing.	

69. In addition to the above schools, Government started a Leather Tanning School at Nagpur in 1925 in order to give instruction to the sons of Chamars and others in modern methods of tanning half-tans, the flaying and curing of hides and the production of finished leather. A finishing tannery was added to the school in 1929. Owing to the continued slump in the leather trade, the post of the leather expert was abolished in 1932 and the management of the school was handed over to a private individual on condition that he undertook to train ten apprentices per annum. Government grants scholarships to these apprentices at the rates of Rs. 8 and Rs. 9 per mensem and the course of training extends over two years. The total number of pupils who have completed this course is 21. The present lessee, however, terminated the lease on the 30th June 1936, and tenders have been invited for a fresh lease.

70. All students in the Schools of Handicrafts are stipend-holders. The total number of stipends awarded by Government every year is 504 of which 302 are for training in carpentry, 177 for smithy, 15 for boot and shoe making and 10 for leather tanning. Originally, no provision for stipends was made for the "mochi" classes at Nagpur and the students were remunerated by sharing the income from the work executed by the class. This, however, did not attract a sufficient number of students and Government had to award stipends to attract students to the classes. The scheme of remuneration on the basis of profit-sharing in the tailoring classes at Jubbulpore and Akola is reported to have been successful. The rate of stipend paid by Government is Rs. 7 per mensem in the first year, Rs. 8 in the second and Rs. 9 in the third year. The "mochi" class has a two-year course and the rate of stipend is Rs. 8 for the first year and Rs. 9 for the second year.

71. The total number of artisans produced by the various schools is given below :—

Carpenters—1,312, Smiths—733, Boot and shoe makers—62, Tailors—32, Leather tanning—21. Total—2,160.

72. Recently, continuation classes have been attached to Schools of Handicrafts with a view to providing occupation for those students from the schools who could not be absorbed in vocations. The continuation classes work on commercial lines and the students share the profits. These classes are reported to be successful.

73. The minimum qualification for entrance into a school for handicrafts is the primary certificate and the minimum age for admission is 15. The normal duration of the courses is three years, except for the "mochi" class which lasts for two years. The courses of instruction in these schools consist of a certain minimum amount of general education (reading, writing and arithmetic) and a knowledge of skill in the handling of tools.

74. The course of training imparted in these schools of handicrafts is only the beginning of a craftsman's career or the foundation of a prospective artisan. It aims at developing ability and skill in the handling of tools and materials, which is a specialized training, through a series of graduated practical exercises correlated with certain theoretical principles, with the express object of producing intelligent and skilled craftsmen under the broad headings of wood or iron workers, carpenters or blacksmiths, fitters or turners. The duration of the course of training, which is three years, is too short and barely provides an introduction to the vast field of industrial pursuits which require the workmen in wood or iron to follow a more definite or specialized branch. The need for specialized training thus becomes very evident. The same applies to industrial education, the products of which, to all intents and purposes, are launched out as improvers. The obvious needs in regard to the organization of specialized courses are—

(1) a longer course of vocational training, and
(2) specialized training through compulsory continuation classes or part-time apprentices.

75. Technical institutions.—Technical training involves knowledge and skill in the handling of modern tools and machines and the application of scientific knowledge to the process of production. We give below a brief account of the institutions in which technical education is imparted at present.

76. Government Engineering School.—Government maintains an Engineering School at Nagpur which is the only institution of its kind in the Province. The following courses of instruction are imparted in the school :—

(1) Civil Engineering up to the Overseer standard.
(2) Mechanical Engineering up to the standard necessary for shift engineers and workshop foremen.
(3) Automobile Engineering up to the standard required for automobile foremen.
(4) Oil Engine classes for oil engine drivers.

77. The students under (1), (2) and (3) above, undergo a three years' course for the Diploma Examination in Engineering held by the Nagpur University. The courses for the oil engine class last for four months and two batches of students are trained every year.

78. Thirty students are admitted annually to the civil engineering class, 15 to the mechanical engineering class, 10 to the automobile engineering class and eight to the oil engine class. Government awards three scholarships annually for civil engineering and two each for mechanical and automobile engineering.

79. Aided technical schools.—Besides maintaining the Engineering School, Nagpur, Government aids the mining classes run by Messrs. Shaw Wallace & Co. at Pench Valley in the Chhindwara district. The classes were started in 1923 but were abandoned in 1928 because of the economic depression. They were revived again in 1933. These classes are handsomely aided by Government. The courses of instruction include such subjects as mining, geology, surveying, physics, chemistry and mechanics. There is no definite minimum standard of education fixed for these classes, but usually the senior assistants, who take the advanced course in mining, are educated up to the matriculation standard.

80. Private technical schools.—There are very few private institutions in the Province which provide technical or industrial training. The most prominent are the Berar Victoria Memorial Technical Institute, Amraoti, and the Roman Catholic Technical Workshop and School, Nagpur. The former has a metal section, comprising turning, fitting, smithy and moulding and the course extends over two years. The latter provides training in fitting, turning, printing, tin and blacksmithy, motor mechanics, electric work, moulding, carpentry and welding.

81. Government scholarships.—The following scholarships for technical education are awarded annually by the Industries Department to *bona fide* residents of the Province :—

Where tenable	No.	Subject of study	Value	Period of training
United Kingdom ..	1*	Technical subject specially selected.	£200+£40 bonus per annum and other charges.	Two to five years.

*Not awarded since 1930 as a measure of economy.

Where tenable	No.	Subject of study	Value	Period of training
Indian Institute of Science, Bangalore.	2	General chemistry, organic chemistry or electrical technology.	Rs. 80 per mensem.	Ordinarily for two years.
Indian School of Mines, Dhanbad.	1	Coal mining, metalliferous mining or geology.	Rs. 60 per mensem.	Ordinarily for three years.
Victoria Jubilee Technical Institute, Bombay.	4	Electrical engineering or textile industry.	Rs. 35 per mensem.	Four years.

82. Government makes an annual grant-in-aid of Rs. 1,500 to the Indian Institute of Science, Bangalore, in view of the training afforded to students of this Province. A contribution of Rs. 200 per student per annum is also made to the Victoria Jubilee Technical Institute, Bombay, in order to secure admission to students from this Province.

83. The Education Department awards the following scholarships to provincial candidates for technical education in institutions outside the Province :—

Where tenable	No.	Subject of study	Value of scholarship	Period of training
Sir J. J. School of Art, Bombay.	1*	Drawing and painting, Design, Modelling or Architecture.	Rs. 30 per mensem.	Two years.
Thomason Engineering College, Roorkee.	1†	Engineering ..	Rs. 50 per mensem.	
Hindu University, Benares.	1	Engineering ..	Rs. 30 per mensem.	Four years.

A contribution of Rs. 2,500 to Rs. 3,000 is also made by Government towards the cost of training of one student per annum at the Thomason Engineering College, Roorkee.

84. Instruction in agriculture.—Agriculture has not so far been introduced in the primary stage and the policy of Government has been justified by the Royal Commission on Agriculture which contended that children of the primary school stage were of too tender an age to profit by instruction in this subject. Provision, of course, has been made in the revised syllabus for primary schools for gardening activities. Owing to various difficulties, it has hitherto not been possible to introduce gardening in the majority of primary schools. It is hoped, however, that the impetus given by the introduction of the new revised syllabus will stimulate interest in gardening activities.

*Renewable for a further period of one year at Rs. 35 per month if the scholar passes the Government Elementary Examination at the end of the course.

†Student sent according to actual requirements

85. Agricultural classes attached to vernacular middle schools have already been referred to in various parts of this report. These classes are intended to assist the pupils to accommodate themselves to rural life after completing the vernacular middle school course. Government is making fresh attempts to popularize these classes and, to this end, arrangements have been made for training a batch of teachers in agriculture in the Agricultural College, Nagpur.

86. The only anglo-vernacular middle school which teaches agriculture is the one situated at Powarkheda and a reference has been made to this school in Chapter VIII. In the high school stage, agriculture constitutes an optional subject for students preparing for the High School Certificate Examination. There are four high schools in the Province in which provision is made for instruction in agriculture. These high schools are at Wardha, Betul, Basim and Dhamtari.

87. Agriculture College.—Higher instruction in agriculture is imparted in the College of Agriculture at Nagpur. The courses extend over four years. The first two years are spent in preparing for the Intermediate Examination in Agriculture held by the Nagpur University, and the following two years for the degree of Bachelor of Agriculture. The College provides ample facilities for practical work in agriculture.

CHAPTER XII.—SOME FEATURES OF THE ECONOMIC CONDITION OF THE PROVINCE

88. General condition—Area and population.—The British Districts of the Central Provinces and Berar cover an area of 99,920 square miles and contain a population of 15,507,723 persons. The average density of population in the Province is 155 persons to a square mile. Most of the population reside in villages, of which there are 39,762. In the whole of the Province, there are only 112 towns with a population of more than 5,000 persons and two cities with more than 100,000 inhabitants.

89. Province chiefly rural.—As many as 6,901,523 persons, *i.e.*, 44.5 per cent of the population, are employed in pasture and agriculture. The number of persons employed as cultivators is 6,623,762, *i.e.*, 42.7 per cent of the population, and those employed as agricultural labourers number 3,588,266, *i.e.*, 23.1 per cent of the population.

During the period 1921—31 the percentage of the population employed in pasture and agriculture declined from 75.7 to 44.5, those employed as cultivators decreased from 72.9 per cent to 42.1 per cent and those employed in agriculture as labourers from 28.5 per cent to 23 per cent. The decline is considerable and is reported to be due partly to difference in the methods of classification in the Census Reports of 1921 and 1931. The Banking Inquiry Committee of 1930 reported that "though 91 per cent of the total population resides in rural areas, 47 per cent only belong to the class of cultivating landlords and rent payers and the whole of the cultivated area is divided up among them."

90. General decline in occupations.—Between 1921 and 1931 the population of the Province engaged in the various industries declined from 1,325,151 to 746,232, *i.e.*, from 9.5 per cent of the total population to 4.8 per cent. The population engaged in commerce decreased from 648,638 to 416,350, *i.e.*, from 4.6 per cent to 2.6 per cent. The persons engaged in professions also decreased from 175,650 to 92,317, *i.e.*, from 1.2 per cent to 0.5 per cent. The population occupied in other occupations besides those mentioned above declined from 360,807 to 182,718, *i.e.*, from 2.5 per cent to 1.2 per cent.

91. Illiteracy.—The percentage of literacy in the Province is 5.8 per cent. The total number of literates, according to the 1931 Census, is 913,428 compared with 661,533 recorded in 1921. The total population in the schools in the year 1935-36 was 434,377, *i.e.*, 2.8 per cent of the total population. The number of boys in primary schools is 314,140, in secondary schools 116,962 and in the University 3,275, *i.e.*, 2.02 per cent, 0.7 per cent and 0.02 per cent of the total population, respectively.

92. Facilities for elementary education in this Province are far from satisfactory. It has already been pointed out that about 89 per cent of the total population reside in villages. Of the 39,762 villages in the Province only 3,970 or 10 per cent of the villages possess schools. Each village school serves three or four surrounding villages, and it may be said that not more than 40 per cent of the villages, approximately are served with schools while as many as 60 per cent of the villages lie beyond the reach of the very elements of education.

93. Poverty in rural areas.—The Banking Inquiry Committee of 1930 estimated the financial position of an average cultivator in the Province as follows :—

Size of holding—21 acres.

(1)	In a normal year (2)	When the crop is 25 per cent below normal (3)
	Rs.	Rs.
Value of gross crop outturn after deducting marketing expenses.	491	369
Income from subsidiary sources ..	50	50
Total income ..	541	419
Cost of maintenance and clothing.	214	214
Cultivating expenses ..	157	158
Rent ..	21	21
Total necessary expenses ..	392	392
Balance ..	149	27

This balance does not include several items of other expenditure such as sums on marriages and funerals, repairs to the house, journeys, interest on debts, etc. The average expenditure on marriages and funerals alone works out to no less than Rs. 40 per year and possibly far more. The remaining balance is shared by the family of the cultivator and includes, on the average, two or three surviving children. The report concludes that while it is contended that these persons do not get enough to eat, "it appears that in normal years, they obtain enough for their maintenance according to their simple standard of living".

94. Large industrial enterprises.—In a memorandum prepared by Dr. O. Jeidels for the consideration of the Central Banking Inquiry Committee in 1931, he gave the following table to indicate, among other features, the

comparative industrial activity in various provinces of India :—

(1)	Banking and Insurance		Industry	
	Number of Companies	Capital (Crores)	Number of Companies	Capital (Crores)
	(2)	(3)	(4)	(5)
Bengal ..	710	8.3	1,608	84.5
Madras ..	336	3.1	263	8.0
Bombay ..	74	8.6	681	82.3
United Provinces and Delhi ..	34	0.5	199	12.2
Bihar and Orissa ..	16	0.1	64	1.4
Punjab ..	29	0.9	150	1.5
Burma ..	17	0.6	227	23.9
Central Provinces ..	10	0.1	43	1.0
Assam ..	34	0.1	37	0.1
Indian States ..	183	3.0	203	0.3
Others ..	6	0.1	29	0.4
Total ..	1,449	25.4	3,504	221.6

(1)	Tea		Miscellaneous		Total	
	Number of Companies	Capital (Crores)	Number of Companies	Capital (Crores)	Number of Companies	Capital (Crores)
	(6)	(7)	(8)	(9)	(10)	(11)
Bengal ..	420	10.1	130	4.8	2,868	107.7
Madras ..	27	1.1	32	0.4	658	12.6
Bombay ..	4	0.2	48	8.9	807	100.0
United Provinces and Delhi ..	2	0.1	36	1.0	271	13.8
Bihar and Orissa ..	3	..	1	..	84	1.5
Punjab ..	..	..	8	0.9	187	3.3
Burma ..	18	0.3	24	0.6	286	25.4
Central Provinces ..	..	..	2	..	55	1.1
Assam ..	55	0.6	7	..	133	0.8
Indian States ..	43	0.6	14	..	443	9.9
Others ..	3	..	1	..	39	0.5
Total ..	575	13.0	303	16.6	5,831	276.6

This table indicates the paucity of large industrial enterprises in this Province.

95. Organised and cottage industries.—In order to make a survey of the industrial situation of the Province, it is convenient to differentiate between organized

industries, which employ ten persons or more and use mechanical power and the remainder, which may be described as cottage industries.

96. Organized industries.—The total number of factories registered under the Act, is 1,017, which employ 59,836 labourers. The following table compares the organized industries in this Province in 1936 with those in 1921 :—

NOTE.—In the 1921 report by organized industries were meant establishments which employ more than 20 men and use mechanical power. In 1931 report they included establishments employing ten or more persons. Figures given under 1936 are those of the 1931 Census Report brought up to date.

	Details	Year 1921	Year 1936	Increase or decrease
	(1)	(2)	(3)	(4)
1.	Factories registered under the Act ..	545	1,017	+472
2.	Number of persons employed ..	58,586	59,896	+1,310
3.	Number of persons employed in all industrial establishments with 20 or more employees.	73,798	59,896	—13,902
4.	Cotton mills ..	14	11	—3
5.	Number of persons employed ..	19,000	19,612	+612
6.	Manganese mines ..	40	13	—27
7.	Number of persons employed ..	14,000	5,005	—8,995
8.	Coal mines ..	16	27	+11
9.	Number of persons employed ..	9,000	12,408	+3,408
10.	Gun Carriage Factory, Jubbulpore ..	1	1	..
11.	Number of persons employed ..	2,000	1,690	—310
12.	Railway workshops ..	16	6	—10
13.	Number of persons employed ..	3,000	243	—2,057
14.	Cotton and ginning mills ..	500	762	+262
15.	Number of persons employed ..	..	26,854	..
16.	Cement works ..	3	3	..
17.	Number of persons employed ..	2,000	2,360	+360
18.	Number of saw mills ..	4	7	+3
19.	Number of persons employed ..	200	195	—5
20.	Dyeing and bleaching works ..	2	4	+2
21.	Number of persons employed ..	400	558	+158
22.	Match factories ..	1	2	+1
23.	Number of persons employed ..	126	203	+77
24.	Paint works ..	2	1	—1
25.	Number of persons employed ..	50	66	+16
26.	Important and unregulated works ..	..	1,120	..
27.	Number of persons employed ..	..	52,300	..
28.	Lime and stone quarries ..	..	20	..
29.	Number of persons employed ..	..	4,005	..
30.	Asbestos factories ..	..	1	..
31.	Number of persons employed ..	..	340	..
32.	Rice and flour mills ..	..	89	..
33.	Number of persons employed ..	..	2,143	..
34.	Engineering works ..	..	9	..
35.	Number of persons employed ..	..	418	..
36.	Printing Presses ..	..	15	..
37.	Number of persons employed ..	..	795	..
38.	Potteries and hume pipes ..	..	4	..
39.	Number of persons employed ..	..	1,640	..
40.	Glass factories ..	..	3	..
41.	Number of persons employed ..	..	260	..
42.	Number of Electrical Power Stations ..	2	16	+14
43.	Number of persons employed ..	54	850	+796
44.	Number of oil mills ..	7	39	+32
45.	Number of persons employed ..	200	1,389	+1,189

97. Cottage Industries.—There has been no responsible survey of the cottage industries in this Province in recent years. The last survey was made in 1908-09 by Sir C. E. Low, then Director of Agriculture. According to him the following were the more important cottage industries which appeared to have some vitality left and were, therefore, deserving of special attention :—

Weaving, pottery, brick and tile making, tanning and leather working, oil pressing, woollen industries, dyeing and calico printing, brass and bell metal industry, mat and basket making, cotton rope and tape-making and toy-making.

98. The selection of the above industries was made by Sir C. E. Low on the following principles :—

(1) The industry should be an important one, practised by a considerable number of persons; one of which the disappearance would be a loss to the Province generally and to an important section of its industrial population in particular.

(2) It should be one for which special reasons exist for carrying on as a domestic industry.

(3) There should be items in the process of the industry that seem at first sight to admit of improvement, while maintaining its character as a domestic industry.

99. The number of persons employed in the industries mentioned above is given in the following table :—

	Name of the industry	Number employed
	(1)	(2)
1.	Pottery ..	35,050
2.	Brick and tile making ..	9,546
3.	Tanning and leather working.	19,691
4.	Manufacture and refining of vegetable oil.	14,561
5.	Woollen industry ..	4,888
6.	Dyeing, bleaching, printing and sponging.	4,180

	Name of the industry	Number employed
	(1)	(2)
7.	Brass and bell industry ..	4,382
8.	Mat and basket making	48,620
9.	Rope, twine, string and other fibres.	3,182
10.	Weaving ..	163,515

100. Industries suited to the rural areas.—In 1930, the Banking Inquiry Committee drew attention to the following industries which are especially adapted to rural areas :—

Cattle-breeding, poultry farming, manufacture of bone manure and manufacture of fertilizers.

101. A survey of employments in the Province.—According to the 1931 Census figures, the distribution of the population in the various employments available in the Province is as follows :—

A.—Production of raw materials—	
(i) Exploitation of animals and vegetation.	6,963,273
(ii) Exploitation of minerals ..	24,193
B.—Preparation and supply of material substances—	
(iii) Industry ..	746,232
(iv) Transport ..	111,145
(v) Trade ..	416,350
C.—Public Administration and liberal arts.	185,109
D.—Miscellaneous ..	360,284
Total ..	8,806,586

"Pasture and Agriculture" and "Fishing and Hunting" constitute (i) above, the former contributing over 6,901,000.

102. "Pasture and Agriculture" support 44.5 per cent of the total population ; industry, including exploitation of minerals, 4.9 per cent ; trade 2.6 per cent ; public administration and liberal arts 1.1 per cent ; and miscellaneous 2.3 per cent, approximately.

103. The following table shows the occupational distribution for the natural divisions and the cities of the

Province. The proportion of workers in each occupation is given per 1,000 of actual workers :—

Sub-class	Central Provinces and Berar	Nerbudda valley division	Maratha plain division	Plateau division
(1)	(2)	(3)	(4)	(5)
Exploitation of animals and vegetation	815	724	786	852
Exploitation of minerals ..	2	1	4	4
Industry ..	77	108	92	53
Transport ..	11	20	10	12
Trade ..	38	65	39	42
Public force ..	5	8	4	8
Public administration ..	5	7	6	4
Professions and liberal arts ..	9	12	11	7
Persons living on their own income ..	1	1	1	1
Domestic service ..	11	21	10	8
Insufficiently described occupations ..	19	23	29	4
Miscellaneous ..	7	10	8	5

Sub-class	Chhattisgarh plain division	Chota Nagpur	Nagpur City	Jubbulpore City
(1)	(6)	(7)	(8)	(9)
Exploitation of animals and vegetation	878	874	46	65
Exploitation of minerals ..	..	..	1	..
Industry ..	52	69	400	309
Transport ..	8	2	85	78
Trade ..	24	22	109	150
Public force ..	3	2	9	60
Public administration ..	2	4	46	31
Professions and liberal arts ..	5	4	36	42
Persons living on their own income ..	..	..	9	10
Domestic service ..	11	7	65	90
Insufficiently described occupations ..	10	11	182	151
Miscellaneous ..	7	5	12	14

104. The population is most predominantly agricultural in the Plateau, Chhattisgarh plain and Chhota Nagpur* divisions. The proportion of agriculturists is slightly less in the Nerbudda valley and the Maratha plain, where the urban population is the greatest and the number of people engaged in industry is larger than elsewhere. The proportion of industrialists in the Nerbudda valley is considerably higher than in the Maratha plain, which is due to the fact that although there are more industrial centres in the Maratha plain, the total population there is much greater and generally more dense than elsewhere in the Province and that cotton cultivation there employs a much larger proportion of the agricultural population that wheat cultivation can do in the northern districts.

105. "Exploitation of minerals" is a source of livelihood to 24,193 persons. Among the metallic minerals, manganese mines which provide whole-time employment to 5,532 males and 4,411 females are the most important group. As many as 304 males and 669 females find subsidiary occupations at these mines. The resident population supported by manganese mines is confined to the Balaghat, Bhandara and Nagpur districts. According to the 1931 Census Report, 35 mines were working in this province and these were responsible for nearly 87 per cent of the manganese produced in India.

106. Coal and building materials, which include stone and materials for the manufacture of cement and clays, support a fair number of persons. According to the Census Report of 1931, there are approximately 24 mines working in the Province producing about 700,000 tons each year or 3¼ per cent of the total annual output of Indian coal. The actual distribution of those employed in the mines at the time of the Census was earners, 4,728 males and 2,050 females and working dependents, 32 males and 50 females. Those who followed subsidiary occupation numbered 565 males and 58 females. Most important among the mines are those in the Chhindwara and Chanda districts.

107. The number of persons employed in the building industry or in cement works has grown by more than 50 per cent since 1921 reflecting an increase in building and prosperity in the cement business. The future of the

*This division represents five states in the Chhattisgarh division. These states are no longer attached to this Province, but a proper understanding of the economic condition of the Province requires a consideration of the Chhota Nagpur division also. This has been adopted in recent Census Reports.

cement industry in this Province is uncertain, as it will be largely determined by big combines and rival concerns which are being constituted outside the Province.

108. The following table shows the number of persons employed in different industries according to the Census Report of 1931 :—

ccupation	Working population in 1931	
	Principal earners and working dependents	Total following subsidiary occupation
Textile ..	180,923	17,407
Hides, skins and hard material from the animal kingdom.	18,213	1,705
Wood ..	78,294	14,540
Metals ..	42,953	5,492
Ceramics ..	41,109	4,811
Chemical products properly so called and analogous.	14,797	3,587
Food industries ..	66,647	10,170
Industries of dress and the toilet ..	134,102	22,423
Furniture industries ..	2,900	1,578
Building industries ..	28,780	3,403

From this table, it is apparent that the most important industry in the Province is the textile industry which spreads over the four Berar districts, the Central Provinces districts of Nimar, Wardha, Nagpur and portions of the Chanda, Hoshangabad and Chhindwara districts. All the ginning and pressing factories are situated in these areas and also fourteen out of the fifteen cotton mills. The fifteenth mill is at Jubbulpore. The cement and pottery works are in the Jubbulpore district and the seasonal rice mills mostly in Bhandara, Raipur, Balaghat and Bilaspur districts. The most important unorganized industries [paragraph 96, item (26)] are bidi and shellac factories, of which a number are found in the Gondia tahsil, and myrobalam factories. The others are scattered over the Province.

CHAPTER XIII.--GENERAL CONCLUSIONS FROM THE ECONOMIC CONDITION OF THE PROVINCE

109. The following conclusions may be drawn from the economic condition of the province described in the previous chapter :—

(1) The province is essentially an agricultural one in which the vast majority of the inhabitants, *i.e.*, 89 per cent of the total population, reside in villages.

(2) The cultivators are poor. Their standard of living is low and they are unable to make any saving from their meagre income. A large majority of them are in debt. Various economic and other factors have combined to render agriculture inadequately remunerative.

(3) The population is illiterate, and a large proportion of the population is beyond the reach even of the elements of education. The progress of literacy is deplorably slow.

(4) Large scale industries and the capital invested in them are very small as compared with most of the other provinces in India.

(5) There has been no appreciable development of organized industries since the position was last considered by the Vocational Education Committee of 1922. The Census Report of 1931, states that " the total number of persons following industrial pursuits in this province has not risen since 1921". Indeed, there are reasons to fear that during this period there has been a definite retardation in the progress of organized industries. The number of cotton mills, manganese mines, and railway workshops has decreased and has restricted to a certain extent the scope for employment. There has, however, been a certain increase in the number of coal mines and a comparatively rapid growth in the number of oil mills and electric power stations. Yet this growth has not greatly increased the opportunities for employment of skilled labour. It may be concluded that the development of organized industries in this province does not justify any radical change in the attitude which was adopted in respect of vocational and technical education by the 1922 Committee.

(6) The cottage industries have fared no better, in respect of progress, than the organized industries. The

Census Report of 1931 states : " It may be assumed that the figures are on the whole tolerably well classified and from them the one obvious lesson is that with the introduction of more machinery into India and consequent appearance of more factory-made articles in most parts of the province the number of those employed in cottage industries has continued to decrease". This statement is supported by the Banking Inquiry Committee Report, which observes, for example, that the innovation which the Director of Industries introduced in the direction of improved sleys and other apparatus for weaving has not produced very desirable results. The report states—

> " The result was that the over-production caused by the sleys operated to reduce the local prices of the fabrics woven and produced a reaction against improved machinery. For example, at Chanda as many as 600 fly-shuttle sleys were introduced and worked successfully. The resulting over-production, however, brought about a depression in the trade ; and instead of exploring suitable marketing facilities for this increased output or of making some other profitable use of the increased leisure which these fly-shuttles might have brought to them the weavers decided that the fly-shuttle sleys were the root cause of their trouble and in accordance with a caste resolution made a bonfire of all the fly-shuttle sleys."

(7) The cottage industries of the province are mostly of a crude nature and those which can withstand competition with large scale machine production are insignificant and rare. This is not surprising when we learn from the evidence given by Professor Godbole of Benares and others, before the Sapru Committee, that the first prerequisite of a really efficient system of cottage industries—as the term is understood in Switzerland, Japan and other modern civilized countries—are mass literacy, an average knowledge of science such as physics and chemistry and cheap motive power, *viz.*, electricity and gas. In the absence of all these three essential conditions, the cottage industries of this province are bound to remain crudely inefficient and inadequately remunerative. Yet, this need not be taken as a ground for abandoning hope. Training in carefully selected cottage industries will help the pupil to learn his trade better and, perchance, to make better profits.

110. Our attention has been drawn to the following additional trades in which instruction may be imparted in suitable areas with profit :—

(i) Brassware industry.

(ii) Handicrafts connected with lac manufacture.

(iii) Boot and shoe making industry.

(iv) Manufacture of glass bangles and other ware.

(v) Weaving and, in particular, weaving artistic patterns of bed spreads, curtains, purdhas and table-cloths.

(vi) Manufacture of cement tiles and other articles of cement including toys, the raw materials for which are abundantly produced in the province.

(vii) Umbrella-making, where bamboos are available locally.

(viii) Pottery works, for which suitable clay is available in the northern districts of the province.

PART V

RECOMMENDATIONS REGARDING THE ORGANIZATION OF VOCATIONAL EDUCATION AND THE INSTITUTIONS IN WHICH IT SHOULD BE IMPARTED

CHAPTER XIV.—GENERAL PRINCIPLES

111. After a careful examination of the facilities provided in the existing vocational schools and the present agricultural, industrial and general economic condition of the province we make the following observations :—

(1) We reiterate the view of the Vocational Education Committee of 1922, that the expansion of mass education is the essential foundation of industrial and economic progress. It is not proposed that vocational education of any type should constitute an essential part of the education imparted at the primary school stage. On the contrary, we entirely approve of the nature of general education which has been suggested for the primary school stage in the recent revised syllabus of studies. We feel that general increase in literacy is the necessary pre-condition of the economic growth of the province.

(2) We are also in agreement with the views expressed by the Central Provinces Vocational Education Committee of 1922, the Universities' Conference of 1934, the Central Advisory Board of Education, and the Government of India that Vocational Training should ordinarily be provided in separate institutions and not in ordinary institutions for general education.

CHAPTER XV.—AGRICULTURE

112. We are in agreement with the view expressed by the Royal Commission on Agriculture that instruction in agriculture should not be imparted in the primary school stage. We are also in accord with the following suggestion made by the Principal, Agriculture College, Nagpur :—

> " Agriculture should not be taught in the primary school stage. Boys are too small to do any serious practical work. Agriculture is an applied science and cannot, therefore, be successfully taught without the maximum of practical work. Nature Study should be taught in primary schools as an introduction to Agriculture."

113. We have already expressed the view that while instruction in agriculture is necessary in a large number of middle schools, particularly in those situated in rural areas, we do not maintain that instruction at this stage should be imparted from a utilitarian or a vocational point of view. We are of opinion that the instruction in this subject should be imparted from the point of view of a liberal education and should aim at creating in the mind of the students a living interest in the rural environment. The experience gained from the successful working of the agricultural anglo-vernacular middle school at Powarkheda encourages us to maintain this view.

114. We note with approval that instruction in agriculture has been introduced in some high school classes of this province as an optional subject for the High School Certificate Examination. We note also that there is a vast difference in the principles on which the teaching of agriculture is based in these high schools and in the middle schools of the Powarkheda type. In the former, agriculture classes are added to the high schools for those who offer agriculture as an optional subject for the High School Certificate Examination. The latter is predominatingly an agricultural school in which agriculture provides the main content and inspiration of instruction and the entire atmosphere is essentially agricultural. We are aware of the fears which have been raised by the Principal of the Agricultural College in respect of the teaching of agriculture as an optional subject in high schools when he states that " these schools are far too closely associated with towns to produce the desirable results envisaged ", and agree with him that the result of this experiment should be watched with care. We also agree with his suggestion that an experiment should be made in the direction of raising the status of the Powarkheda School to that of an Agricultural High School. We hope that a proper readjustment of the curriculum and the correlation of the instruction in agriculture with other subjects of instruction imparted in the schools will lead to the foundation of genuinely rural secondary schools in this province.

115. The instruction in agriculture provided in the Agriculture College, Nagpur, includes a systematic study of the theoretical aspect of the subject as well as practical work on farms. We are convinced that the college is meeting a very useful need in this province and that it should continue to fulfil this need in the future.

CHAPTER XVI.—POPULAR INDUSTRIES OF THE PROVINCE

116. Separate vocational schools for specialized practical training are expensive institutions and much care should be devoted to correlating such schools with the general scheme of education on the one hand and with the economic and industrial life of the Province on the other. We are convinced of the correctness of the principles suggested in connexion with the opening of vocational schools by the Central Provinces Vocational Education Committee of 1922, which will bear repetition :—

> " We recognize, on the one hand, that it would be useless and even harmful to train men in excess of the opportunities for employment. On the other hand, we feel that a well-organized system of industrial and technical education is an essential auxiliary to industrial development and encourages it and that for this reason technical education should not only keep abreast of existing requirements but should anticipate the demands which it seems probable that industrial developments in the immediate future will create. We are impressed with the necessity of adjusting the educational system to industrial and economic requirements but consider that no scheme of vocational training is likely to be successful which is out of relation with existing industrial development."

117. We are much impressed by the fact that even in a highly industrialized country like England the institution of separate full-time vocational institutions is viewed with a certain amount of fear. The Report of the Vocational Education Committee appointed in 1936 in England by the British Association for Commercial and Industrial Education states :—

> " As regards full-time education, the committee do not anticipate that, apart from the training of girls for secretariat work, there is likely to be any great increase in the volume of instruction demanded for pupils of about 16. There are several reasons for this. In the first place, as one of the replies states, 'the two years of full-time vocational instruction is considered risky unless the future career is clearly indicated', and a prudent parent would be usually unwilling to let slip any opportunity of placing his son in a promising post as soon as his general education was finished. In the second place, many firms,

even when greatly interested in the question of recruitment and training, find it very difficult to specify exactly at any particular time what their need for recruits of about 18 will be two years later. These factors certainly tend to diminish the demand from both parents and employers for full-time vocational courses of instruction for boys of about 16".

118. In view of the above considerations and of the existing industrial condition of the Province, we do not feel justified in recommending the institution of vocational schools for imparting instruction in subjects connected with the organized industries in this Province. No demand has been manifested in this direction by any of the living industries and industrial employers normally prefer to make their own arrangements for training such specialized men as they require and in a manner which suits them best. It is also only right that the industrialists, who profit by the employment of skilled craftsmen, should also pay for educating them in the necessary crafts.

119. We understand that the Nagpur University has prepared a scheme for specialized courses of training in Oil Technology. The practical operation of that scheme and its consequences will be watched with interest.

120. The schools of handicrafts, Government and aided, impart instruction in certain cottage industries such as blacksmith's work, carpentry, leather-tanning, boot-making and tailoring. The replies to the committee's questionnaire suggest that there is a great demand for vocational education and the records of the schools of handicrafts in this Province show that a large number of candidates are refused admission owing to lack of vacancies.

121. We are of opinion that the courses of training imparted in the existing schools of handicrafts are not sufficiently comprehensive to produce workers suitable for specialized vocations and that the duration of training is too short for anything more than an introduction to the vast field of industrial pursuits. The practical courses given at present do not seem to be sufficiently varied to meet the public demand and the training imparted in these schools does not aim at producing specialized workmen in the strict sense of the term except under the broad headings of wood or iron workers, fitters or turners. For these reasons, we recommend a change in the policy of the schools of handicrafts and the institution of conti-

nuation classes or part-time apprenticeships with a view to providing specialized training in the strict sense of the term. In this connection, we recall the suggestions made by the 1922 committee in paragraph 31 of its Report relating to a new type of Industrial Middle School "with a four-year course in carpentry and blacksmith's work (and possibly also in boot-making) and facilities for more advanced general education".

122. Considering all the material before us and the suggestion of the Central Advisory Board that the completion of the lower secondary school stage of education should mark the main point of diversion into institutions for specialized training and also the views of experts, who consider that the age of entry to schools for specialized training should not be less than 13½ or 14, we make the following recommendations :—

(1) Entrance to the schools of handicrafts should be restricted to pupils who have completed the lower secondary stage of education.

(2) In view of our proposals that training in workshops should be a compulsory part of the middle school course, particularly in urban areas, the students who will complete this course of education will have already acquired a sufficient amount of skill in the handling of tools and practical proficiency of a broad and general nature which is aimed at at present by the existing schools of handicrafts. The training imparted in the schools of handicrafts should in future constitute a one year's advanced training leading to specialized courses of one or two years' duration according to the needs of the various subjects of specialization. We feel that this reorganization of the schools of handicrafts will not require much additional expenditure and will achieve better results than the existing types because, in the latter, the duration of the courses is limited and the entrants to the school do not possess the necessary elementary skill in the handling of tools nor an adequate amount of general education.

(3) We recommend that instruction in the schools of handicrafts should be limited to such subjects as require considerable practical skill, the theoretical and scientific knowledge related to it and the improvement of methods of production in vogue in this Province.

(4) We also recommend the introduction of a larger variety of subjects for specialized training depending upon local needs and requirements. We suggest, therefore,

that training should be extended to subjects related to the brassware industries of this Province, handicrafts connected with lac manufacture, boot-making, the manufacture of glass bangles and other glassware, the manufacture of tiles and other articles of cement and a superior type of pottery work. The list may be altered or enlarged according to the needs of different localities.

(5) In view of the fact that instruction in the altered type of schools for handicrafts will be highly specialized and strictly vocational and that the nature of general education imparted in them will be determined by the requirements of the vocations taught, we are of opinion that the administration and control of the vocational schools of the type suggested by us should be vested with the Director of Industries assisted by the Inspector of Industrial Schools and such other staff as may be considered necessary.

(6) It has already been suggested that instruction in some form of manual work should be compulsory in all lower secondary schools and that it should be imparted strictly from the point of view of liberal education. This will necessitate an adequately qualified staff of teachers and supervisors for instruction and organization of various practical subjects selected for introduction in the lower secondary schools of this Province, to assist and advise the Director of Public Instruction under whose control the lower secondary schools fall.

CHAPTER XVII.—TECHNICAL EDUCATION

123. We are aware of the growing volume of public demand for the enlargement of the scope of technical education provided in the Government Engineering School at Nagpur, by the institution of courses of studies leading to a University degree in various branches of engineering, such as civil, mechanical and electrical engineering and mining and metallurgy. This demand is made because of the increasing difficulty experienced every year by the students of this Province in securing admission to Engineering Colleges outside the Province. There is also a feeling that the absence of a full-fledged Engineering College in this Province has resulted in the absorption of a large number of candidates from outside the Province in the higher engineering posts under Government. Moreover, it has become customary in certain quarters to attribute the absence of industrial enterprise in this Province to the lack of a suitable number of adequately qualified engineers and it

is contended that the number of such engineers should be increased even at the risk of their finding no employment, for it is hoped that under the stress of unemployment they will be forced to exercise their initiative to the utmost and to create new fields requiring special skill and ability.

124. The economic condition of the Province is depressing and offers little ground for raising the status of the existing Engineering School to that of a College. There are certain instances of students in this Province, who after training in the Thomason Engineering College, Roorkee, at considerable expense to Government, have not been able to secure suitable employment for a number of years, in one case for as many as six years. Even the products of the Nagpur Engineering School are not certain of securing stable employment and the Principal of the School states that most of them are engaged temporarily. The opening of an Engineering College in this Province will not only be an expensive business but it will be fraught with the danger of preparing qualified engineers in excess of the existing demand and exposing them to a severe type of unemployment. The demand for a superior type of engineer is so meagre as to be adequately met by extending, if necessary, the facilities provided at present by Government for the training of engineers in colleges outside the Province.

125. One feature of note in this Province is the considerable rise in the number of electric power stations. It is likely that their number will increase still more in future. It may be worth while, therefore, to introduce courses of instruction in the Engineering School, for electricians of the standard necessary for electrical foremen and mechanics.

CHAPTER XVIII.—COMMERCIAL EDUCATION

126. The demand for commercial education in this Province has been largely met by the provision of two different types of commercial courses in the syllabus for the High School Certificate Examination. This provision is in accordance with the spirit of the recommendation made by the Vocational Education Committee appointed in England in 1936 by the British Association for Commercial and Industrial Education. This Committee observed—

> "They believe that a secondary school should remain, at all costs, a place of liberal education. At the same time they are of opinion that this ideal can be

fully maintained if, after the age of 16, means are employed for making more easy the transition from school to work. Thus, boys who propose to enter the manufacturing side of industry would benefit by the study of Mathematics, Physics, Chemistry and solid Geometry, all of which, except the last named, form part of the ordinary study of the secondary school. On the other hand, boys and girls proposing to enter the commercial side of business may well devote their attention to recent history, geography, the method of recording statistics and the elements of accounts. The Committee are aware of the instances where instruction of this kind is being given with advantage to Sixth Form pupils in secondary and public schools who intend to enter business on its commercial side."

127. We are, therefore, of the view that the courses in commerce prescribed by the High School Education Board for the High School Certificate Examination may be re-examined and, if necessary, revised in the light of business or secretarial requirements, and its introduction in more high schools may be encouraged to the extent which will be justified by the existing demand for such candidates. We also consider it necessary that instruction in commerce should be placed in charge of teachers who possess the B. Com. and B. T. degrees of recognized Universities.

128. The Department of Education in this Province arranges for the conduct of the following examinations of the London Chamber of Commerce twice a year :—

(1) Certificate Examination in single subjects.

(2) School Certificate Examination of Commercial Education.

(3) Group Diploma in groups of three subjects.

(4) Higher Certificate Examination in separate single subjects.

(5) Higher Group Diploma in groups of three subjects.

These examinations are popular with candidates who wish to obtain commercial or secretarial posts.

129. We are aware of a demand which is voiced in certain quarters for the opening of a College of Commerce in this Province. It is contended that graduates in commerce will be preferred for employment in various departments such as the Income-tax Department and certain

branches of the Administrative, Agriculture, Railways, Co-operative, and Audit Departments of Government. It is also hoped that the growing number of insurance companies and co-operative and other banks and other business enterprises in the Province may open up new fields for careers for such graduates. The Banking Enquiry Committee of 1930 also stressed the need for including "instruction in Commerce and Banking and Co-operation in the School and University Curricula". The demand for commercial education in the University stage appears emphatic.

130. The Committee has no precise information regarding the extent to which graduates in commerce can be suitably absorbed under the existing economic conditions of the Province. It will be relevant, therefore, to consider the position in this respect in a province like the United Provinces which provides a comparatively large scope for employment for commerce graduates. While giving evidence before the Sapru Committee the Director of Public Instruction, United Provinces, did not express himself as being very hopeful that any concrete results would come from establishing more institutions designed to teach commerce. Several witnesses before the Sapru Committee humourously described the B. Com as only *be kam* (workless), and the Director of Public Instruction, United Provinces, explained—"That is so. That is unfortunately the position. It seems that B. Coms. who think that they may get jobs in commercial concerns, cannot get any; not that there are not jobs but there is nobody to back them and there is a strong prejudice among Indian merchants and Indian businessmen against these young men, partly, because the former feel that they have not got the necessary practical knowledge, and partly because they think that they can get their work done much more cheaply by engaging semi-educated men."

131. Leading business men in the United Provinces explained that B. Coms. were not employed as they did not possess the practical knowledge necessary in business. The Dean of the Faculty of Commerce of the Agra University pointed out the difficulty involved in making provision for practical training in business. He observed: "Practical knowledge can only be given in business firms. For instance, take the case of banks. I do not think any bank would allow our students to touch their ledgers and find out about the accounts of different persons. They do not think that the students can be entrusted with that kind of confidential information. So far as the theory of banking

is concerned, we teach them all right. Six months' training would enable our students to work in any bank very well." It may well be concluded that there is certain prejudice amongst leading businessmen against commerce graduates. Businessmen will not employ them because of their lack of practical training and at the same time they are reluctant to provide facilities for practical training which they alone can provide. They are content to have low paid munims and clerks rather than employ commerce graduates. The Sapru Report pointed out that the B. Coms. of the Allahabad and the Lucknow Universities were particularly fortunate but "this good luck did not attend the careers of those who had taken degrees in Commerce from the other Provincial Universities".

132. This observation bids us to be cautious in recommending any scheme for the provision of a degree course in commerce in the Nagpur University. It will certainly be necessary to investigate fully into the possible extent of employment of commerce graduates before the introduction of a degree course in commerce is contemplated.

CHAPTER XIX.—MEDICAL EDUCATION

133. Our attention has been drawn to the need of extending the scope of medical education imparted in the Government Medical School, Nagpur, and of raising its status to that of a Medical College. The demand has, of late, become acute in view of the fact that certain medical colleges outside the Province refuse to allow normal facilities for admission to candidates from this Province on the ground of their being "outsiders". People of this Province naturally desire that our young men should receive medical education up to the graduate and post-graduate stage in order to qualify themselves for the Provincial Medical Services, which have so far provided employment to a large number of "outsiders", and should also share with others whatever available field for private medical practice there is. This desire cannot be realized unless adequate facilities exist for the training of young men from this Province in medicine.

134. While we recommend that adequate measures should be taken to facilitate medical education up to the degree standard and beyond for candidates from this Province, we also suggest the examination of the following considerations before launching on any scheme for the establishment of a separate medical college.

135. The scope of employment in Government service for medical men possessing medical degrees is limited and is not likely to increase in any considerable manner for some time to come in view of persistent financial stringency. The records of the year 1935-36 show that only ten graduates were recruited to the Provincial Medical Services during the year.

136. There is a definite tendency among those who possess medical degrees to settle down in urban areas for private practice and to avoid rural areas. The reason for this is two-fold. The medical practitioner cannot hope to make two ends meet and maintain an efficient establishment in rural areas, and he will never be able to compete with local quacks. The urban areas in this Province, moreover, are very few. There are only 112 towns in the whole Province, and not more than 11 per cent of the total population resides in urban areas. This is another consideration which restricts the prospects of highly qualified men of finding their profession suitably remunerative. It may well be asked whether we have not already more doctors with medical degrees than urban society can afford to maintain.

137. It has been pointed out, in a different connection, that this Province is, on the whole, poor. The average man finds it difficult to meet the cost of treatment by qualified medical men. In addition, medical relief and attendance is not properly organized in this Province through Insurance and other institutions which aim at bringing the highest type of medical attendance within the reach of each citizen. It is likely, therefore, that a large number of medical graduates released from a local medical college may not be readily absorbed in the existing social and economic circumstances. It is necessary to avert the situation which is reported to obtain, for example, in the United Provinces. The Sapru Committee reported—

> "There is a considerable amount of unemployment prevailing in the medical profession in these Provinces due to the tendency of the medical practitioners to congregate in big towns and cities where the remuneration is higher than in rural areas."

138. The remedy suggested by the Sapru Committee in this respect is that medical men should be persuaded to settle down in rural areas in larger numbers and for this purpose it will be necessary to subsidize them on a more generous scale than has hitherto been done. It is worth

while considering whether it is desirable to establish an expensive medical college and to turn out a large number of medical graduates in anticipation of a well-planned scheme of medical relief and attendance in rural areas.

139. It is necessary to examine the condition of employment amongst those who have received training in the Government Medical School, Nagpur. It is found that very few of them obtain employment in Government or other services, and most of them find themselves unable to establish private practice because of competition from graduate medical practitioners in urban areas and quacks in rural areas. In view of the unemployment prevailing among the doctors who have qualified at the Medical School, Nagpur, the Civil Surgeon, Nagpur, suggests that "the fees should be increased and the number restricted to the number which can be absorbed in Government service and remunerative private practice and the standard of teaching raised with special stress on the use of indigenous drugs and manipulative surgery as both of these subjects are very suitable for practice in Indian villages".

140. The following table shows the number of qualified men and women who have passed out of the Robertson Medical School, Nagpur, since 1932, and the numbers absorbed in Government service :—

Year	Number who passed out			Number employed in Government service		
	Men	Women	Total	Men	Women	Total
1932 ..	42	..	42	10	1	11
1933 ..	32	2	34	26	2	28
1934 ..	40	3	43	9	..	9
1935 ..	36	3	39	6	2	8
1936 ..	31	3	34	16	1	17
1937 (up to April).	15	1	16	10 (up to June).	..	10

141. In certain quarters there is a marked preference shown for the employment of *kavirajas* and *hakims* on the ground that their system of treatment is suited to the purse of the average citizen. Some of the local bodies in this Province have already employed trained *kavirajas* and *hakims*. If this feeling grows, medical graduates will have to face serious competition, and it is not unlikely that this feeling will grow with the growth of national sentiment. It will also be desirable to estimate the extent of the popularity enjoyed by the homeopathic system of treatment among certain middle class men in urban areas who show a marked preference towards it because of its cheapness.

PART VI

PSYCHOLOGICAL GUIDANCE TO CHILDREN

CHAPTER XX.—THE TRAINING OF TEACHERS TO ENABLE THEM TO ASSIST PUPILS AND PARENTS IN THE SELECTION OF THE COURSES OF STUDIES SUITED TO THE SPECIAL APTITUDES OF THE PUPILS

142. The experiments which are being conducted on a large scale in Europe, England and America on the subject of various methods of psychological testing in order to give vocational and other guidance to pupils so as to assist them in the choice and preparation of careers suited to their special aptitudes are full of interest, as well as of promise. There is, however, a wide divergence of opinion held in regard to the value of the various tests and none of them is allowed an indisputed claim to predictive certainty. The investigations in this direction are still in their early stages and scientific precision has yet to be obtained. Progress in this direction is hampered by a certain amount of charlatanism which has been allowed to creep in. Much care and caution is necessary, therefore, until guidance approximates to absolute certainty and the fear of possible misguidance through these tests is completely eliminated.

143. It should also be kept in view that vocational guidance is characteristic of highly industrialized countries in which skilled work of a varied nature is provided by their manifold industries. The employer has a wide range of choice and for each special work desires to choose the most efficient worker. He is, therefore, anxious to obtain psychological assistance in the selection of an efficient workman for a particular job. In Germany, for example, the problems of selection as they affect the employers of the district have been co-ordinated with those of guidance and the typical psycho-technical bureau carries out quite an elaborate series of special psycho-technical examinations for the purposes of selecting apprentices of suitable qualifications and abilities. In this Province, however, industrialization has not reached a stage where it can provide a vast range of diversified occupations for a large variety

of skilled workmen. Psychological guidance has not much scope in a country where occupations requiring skilled efficiency are extremely limited in number and variety and where the only labour in abundant demand is of the crudest type.

144. Attempts to provide vocational guidance to school children, as well as any other kinds of guidance, have hardly commenced in India. A move in this direction, however, is very desirable. But before we can proceed it will be necessary to conduct detailed investigations with a view to carrying out a variety of tests written in Indian languages and suited to Indian conditions of life in order to determine the distinctive individual aptitudes and the psychological patterns which will be most suited for each occupation for which a demand is or may be manifested in the economic life of the country. These investigations should commence, we consider, in a well equipped Central Psychological Research Institute in the Province under the guidance of expert psychologists, which should conduct its experiments within a reasonable area. Such investigations may, in course of time, lead to valuable and safe conclusions and render vocational testing and guidance possible in the conditions peculiar to Indian life. The task is thus of considerable magnitude and cannot be achieved merely through providing a course in psychological testing for students in training colleges.

145. The investigations planned by the proposed institute can only be carried out through the agency of teachers who will need to be better equipped in the knowledge of psychology than they are at present. In order to enable the teachers to acquire a fair grasp of psychology, to conduct tests directed by the Psychological Research Institute and to collect and collate the data obtained, it will be necessary to devote more time to the teaching of psychology in the training colleges. To this end the following course is suggested :—

(*A*) Compulsory for all teachers :—

(i) (*a*) An outline of general psychology.

(*b*) The psychology of the adolescent, for those who will be connected with secondary schools,

or

Child psychology, for those connected with primary education.

(ii) (*a*) Outlines of educational psychology.

(*b*) Study of the various modern methods of psychological testing.

(*B*) The teachers who offer psychology as a special subject should be required to take an additional paper on—

(iii) (*a*) The outlines of abnormal psychology.

(*b*) The psychology of mentally deficient boys and girls.

Both these subjects should be learnt in their relation to educational problems.

146. It is neither necessary nor practicable to equip each teacher with such specialized knowledge of psychology as will enable him, when required to do so, to render active assistance in guiding the pupil in the selection of the courses of studies suited to his individual abilities and aptitudes. In the initial stages it will be necessary to prepare a band of specialized workers in the field and to equip the rest of the teachers with such a general knowledge of psychology as will enable them intelligently to assist the specialist psychological guiders. The Birmingham Education Committee, for example, has entrusted the work of giving psychological tests to selected trained teachers only, whose work is supervised by expert psychologists. We may profitably adopt this method.


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PART VII

SUMMARY OF RECOMMENDATIONS

CHAPTER XXI.—SUMMARY OF RECOMMENDATIONS

1. Educational reconstruction.—The following considerations should necessitate a new attitude towards educational reconstruction :—

(*a*) the need of readjusting the system of education in view of the altered conditions of life ;

(*b*) the desirability of developing a scheme of education in which the courses of instruction in rural areas will be attuned to rural requirements ;

(*c*) the advisability of introducing training of a more practical type than at present in schools in which excessive emphasis is laid on a purely literary form of education in the system in vogue ;

(*d*) the need of furthering the policy, which is being followed in this Province, of providing in the scheme of education instruction in specialized practical courses.

2. None of the following considerations should influence the attitude towards educational reconstruction :—

(*a*) the growing volume of unemployment among the educated classes ;

(*b*) the inadvisability of too frequent examinations ;

(*c*) the large number of over-age pupils in senior classes of high schools.

3. Educational reconstruction should be conducted within the frame work of the existing system of education in this Province.

4. Aim of lower secondary education.—The aim of lower secondary education should be clearly defined and strictly adhered to. The considerations urged below are essential to the definition of the aim of lower secondary education in this Province—

(*a*) it should be consistent with that defined for primary education in this Province ;

(*b*) it should take full cognizance of the requirements of the period of adolescence ;

(*c*) it should impart liberal education at this stage of education ;

(*d*) it should arrange for the development of each pupil according to his individual interests and aptitudes ; at the same time the claims of society should not be ignored ;

(*e*) it should develop sound character, healthy bodies, good tastes and practical ability ;

(*f*) it should provide a large amount of practical work related to the living interest provided by the pupil's environment.

5. Principles of curriculum construction.—The following principles of curriculum construction for the lower secondary stage follow naturally from the definition of the aim of the lower secondary education :—

(*a*) The nature and extent of the courses should be determined by the physical and mental capacities of the pupils of the ages of 10 or 11 to 13 or 14, particularly in view of the period of adolescence.

(*b*) Instruction in a large variety of literary as well as practical subjects should be provided in order to enable the pupil to discover his distinctive bent of mind.

(*c*) The subjects of literary and practical interest should be strictly correlated in the light of the requirements of general education.

(*d*) The subjects of practical interest should be determined by the local conditions of the school centres.

(*e*) Wherever necessary, continuation classes should be added to the middle school.

(*f*) The medium of instruction should remain as it is. Instruction in English should be optional in schools situated in backward areas.

6. Middle school reorganization.—The reorganization of the middle school in the light of the aim of the lower secondary education defined above leads to the institution of the following types of middle schools :—

(*a*) Middle schools with suitable farms or workshops or both.

(*b*) Middle schools of the above type in which instruction in English will be optional.

(*c*) Middle schools of the type mentioned in (*a*) above with continuation classes attached to them to provide special training for occupations locally available.

7. Conditions for success.—The following conditions are essential to the success of educational reorganization proposed above :-

(*a*) The appointment of teachers with a real calling for the profession, with a high standard of professional education, adaptability to practical work, fair wages, and security of tenure of services.

(*b*) The equipment of schools with an adequate library, workshop, laboratory and garden and farm for agricultural work.

(*c*) Intensive inspections and supply of supervisors for practical work.

(*d*) The realization of the characteristic features of these reforms through a suitably altered system of examination.

(*e*) The introduction of extra curricular activities in the school.

(*f*) Propaganda in favour of educational reform.

8. Curriculum for rural middle schools.—There should be a detailed enquiry conducted in characteristic rural areas of the province with a view to obtaining suitable material for framing a suitable curriculum for rural middle schools in the light of the aims defined in this report.

9. Vocational education.—(*a*) The economic condition of the Province does not justify any radical alteration in the attitude adopted so far in respect of vocational and technical education.

(*b*) The expansion of mass education is the essential pre-condition of industrial and economic progress.

(*c*) The instruction in vocational and technical education should not be imparted in schools for general education.

10. Agriculture.—(*a*) Agriculture as a subject should not be taught in primary schools.

(*b*) Instruction in agriculture should be imparted in the lower secondary schools from the point of view of general education.

(*c*) While we approve of instruction in agriculture as an optional subject in high schools, we recommend that an experiment should be made by raising the status of the Agricultural Anglo-Vernacular Middle School, Powarkheda, to a high school with a view to founding a genuinely rural higher secondary school in this province.

11. Popular industries.—(*a*) Vocational instruction in industries should not be in advance of the industrial development of the province.

(*b*) The industrial condition of this province does not justify the institution of courses of instruction in subjects connected with the highly organized industries.

12. Schools of handicrafts.—(*a*) Admission to schools of handicrafts should be restricted to those who have at least completed the lower secondary stage of education.

(*b*) The courses of instruction in the schools of handicrafts should be thoroughly revised with a view to imparting a one year's course for advanced training leading to specialized courses of one or two years' duration according to the needs of the various subjects chosen for specialization.

(*c*) Instruction in the schools of handicrafts should be limited to such subjects as require considerable practical skill, theoretical and scientific knowledge related to it and improvement in the methods of production in vogue in this province.

(*d*) A larger variety of subjects for specialized practical training depending upon local conditions should be introduced in the schools of handicrafts.

(*e*) The administration and control of the schools of handicrafts of the type recommended should be vested in the Director of Industries assisted by the Inspector of Industrial Schools.

13. Education Department.—The Director of Public Instruction should have a separate staff for supervision and organization of the practical instruction suggested for introduction in the middle schools.

14. Engineering.—The economic condition of this province does not justify the raising of the status of the Engineering School, Nagpur, to an Engineering College. The possibility of introducing courses of instruction for electricians of the standard necessary for electrical foremen or mechanics should be considered.

15. Commerce.—(*a*) The courses in Commerce prescribed by the High School Education Board should be re-examined and revised, if necessary, in the light of business or secretarial requirements.

(*b*) Instruction in commerce should be introduced in more high schools to the extent necessary to meet the demand for candidates with these qualifications.

(*c*) Instruction in commerce in high schools should be imparted by graduates in commerce who have also received professional training as teachers.

(*d*) A full investigation into the probable extent of the employment of graduates in commerce is necessary before introducing a degree course for commerce in the Nagpur University.

16. Medical.—A thorough investigation into the scope of employment of medical graduates in the province should be made before establishing a Medical College in the Central Provinces.

17. Vocational Testing.—(*a*) Psychological research in various methods of testing should be encouraged by the institution of a central psychological institute in the province. The institute proposed should conduct experiments within a reasonable area through the agency of teachers specially qualified for the purpose.

(*b*) A special course of psychology should be taken by the teachers under training in the Training Colleges.

18. In conclusion we wish to stress the following observations :—

(i) Before putting the plan of educational reconstruction suggested in this report into practice, it will be necessary to make detailed enquiries into the local conditions.

(ii) The details of the courses of instruction should be so planned as to allow elasticity to each school so as to enable it to accord with its environment without endangering the vital objectives which it should serve, in common with other schools, in its own characteristic fashion.

(iii) The want of adequate information has precluded us from giving our views in regard to instruction in a large number of vocations, using the term in its widest connotation, such as

journalism, architecture, accountancy, veterinary science and surgery, librarianship, dentistry, pharmacy, etc., etc.

(iv) We have been unable to gather adequate data on the condition of primary education in the Province to enable precise conclusions in respect of the points raised in paragraph 5 of Government of India letter, dated the 30th April 1936. We have embodied such information as we have been able to collect in Appendices IV and V.

(v) We have not attempted in our report to survey the entire field of education and to suggest an overhauling of the whole field of education. We have been limited by the terms of reference before us. Further, the nature of the terms of reference have also precluded us from doing anything more than to suggest broad and general principles of reform in certain aspects of the educational system.

(vi) We have been greatly handicapped by the absence of an economic survey of the province, and this circumstance has prevented our suggesting a plan of vocational education from being as complete as we should have desired it to be. Replies to the questionnaire did not give information on the adequacy and authority of which we could always lay complete reliance. Much of our information was collected from the Census Report of 1931, and Provincial Banking Inquiry Committee Report of 1930. Yet we feel that we had sufficient material before us to enable us to suggest, at any rate, the general lines of educational reconstruction in this province, which will conform with the ideals propounded by the Central Advisory Board of Education.

(vii) The replies to the questionnaire will be forwarded to a committee appointed by the Provincial Board of High School Education to make recommendations on the reorganization of the Middle School course.

19. We are grateful to the Revd. J. Thiessen, Mauhadih, the Revd. E. W. Menzil, Bishrampur and the Revd. Th.L.

Seybold, Raipur, for valuable help and assistance in the discussions of the Educational Reconstruction Sub-Committee [paragraph 9 (ii)] to which they were co-opted and to Mr. Lala Hariram, for similar help and assistance on the Vocational Education Sub-Committee [paragraph 9 (iii)]. Our thanks are also due to the persons whose names are given in Appendix II for the valuable information given in their replies to the questionnaire. We are under a special debt of obligation to our Secretary, Dr. V. S. Jha, upon whose shoulders fell the brunt of the work of collecting information and data for the consideration of the committee. He undertook these duties in addition to his own duties as Inspector of Schools of a large circle. We desire to place on record our high appreciation of his valuable services to the committee and of his assistance in the writing of this report.

M. OWEN,
Director of Public Instruction.
C. C. DESAI,
Director of Industries.
SORABJI B. MEHTA.
G. R. KOTHARE.
LEONARD G. D'SILVA.
V. S. JHA.
S. H. CLARIDGE.


सत्यमेव जयते

PART VIII

APPENDICES

APPENDIX I

VOCATIONAL TRAINING

QUESTIONNAIRE

1. Name of the person (or institution) replying—

2. Designation—

3. Full address—

4. Area about which the statements are made—

5. Topic or topics on which a special note is submitted for consideration by the Committee—

N. B.—All replies and special notes on topics should reach the Secretary *on or before October 1st*, 1936.

V. S. JHA,

Secretary to the Committee,
Inspector of Schools, Raipur,
Central Provinces.

UNEMPLOYMENT AND EDUCATIONAL RECONSTRUCTION

1. The Local Government has appointed a Committee to do the exploratory work and collect data, including the bringing of available information up to date, on the subject of vocational education in this province. This information will be laid before foreign experts, appointed by the Government of India, who will visit the province during the ensuing cold weather. These experts will then be in a position to advise the Local Government on the nature of vocational training to be imparted and the location of separate vocational institutions.

2. The diversion of suitable pupils from the literary courses at present followed by the great majority of school pupils is a matter of vital importance to the future welfare of the province. In order to collect the necessary information for discussion with the experts, the Committee has decided to issue the questionnaire printed below. The Committee will be grateful to Government officers and members of the general public, including leading industrialists, agriculturists, businessmen and other employers of labour who are in a position to give or collect valuable information on the subject, if they will reply to the questionnaire, wholly or in part, and so help the cause of the educated unemployed in this province. A detailed note on any of the relevant topics will also give valuable assistance to the Committee.

3. The following definitions will be helpful to those answering the questionnaire :—

(I) *Manual training* aims at developing the constructive activities of the child with the object of cultivating mental powers of observation, attention and accuracy of the moral faculties of order, neatness, perseverance and reliance, awakening and training the artistic faculties of the pupils and directing them to the appreciation and creation of the beautiful and training them to take joy in the acquisition of skill and in the production of finished objects.

(II) *Pre-vocational training* is a part of general education and aims at giving a definite bias in one or more directions to a pupil's education and thus prepare him indirectly for a particular occupation. Discovery of the pupil's bent towards a particular occupation may result from training of this type.

(III) *Vocational training*, or industrial education, aims at developing ability and skill in the handling of tools, material and machines. This is a specialized training which is designed to produce qualified artisans for some specific industry, craft or occupation.

(IV) *Technical education* is instruction in the principles of science and art as applied to industries. Attention is chiefly given to the acquisition of knowledge of various principles of technical education and their practical application.

4. The time at the Committee's disposal is short and it is kindly requested that the replies to the questionnaire may be sent to the Secretary at the address given below on or before October 1st, 1936.

V. S. JHA,

Secretary to the Committee,
Inspector of Schools, Raipur,
Central Provinces.

QUESTIONNAIRE

PART A.—PRE-VOCATIONAL

I. Has manual training in any form been conducted in any of the schools in your locality? If so, please cite any outstanding feature or benefit has been derived from this course of instruction.

II. If manual training has not been introduced in any school in your locality, do you consider that such a course of training would confer educational benefits specified in the definition, having regard to heredity, environment and other characteristics common in your locality?

III. Should pre-vocational training be given in the schools in this province? If so, please state briefly—

(*a*) At what stage of general education should pre-vocational education begin and vocational courses introduced?

(*b*) Should pre-vocational education be preceded by manual training?

(*c*) What subjects are most suitable to create a practical bias or to lead to the discovery of a bent for any particular industry?

(*d*) Should a pre-vocational course precede vocational training, having as its object efficient craftsmanship and good business methods?

IV. In view of the Central Provinces and Berar being predominantly an agricultural province, do you consider that an elementary course of agriculture as a compulsory pre-vocational subject in rural schools should be adopted? If so, please cite any instance—

(*a*) where, as the result of agriculture being a pre-vocational subject, a bias was sufficiently created as to produce skilled agriculturists at a later stage with material benefits;

(*b*) which has resulted in any other form of rural pursuits with special advantage to the locality.

V. Are there a sufficient number of pre-vocational and vocational schools in your area? If not, what type of vocational schools do you require and where?

PART B.—VOCATIONAL

I. Do you consider, in view of the present industrial and commercial conditions of the province, that vocational training through specialized courses should be given?

II. In connection with what industries (including agriculture) or crafts, or other occupations do you consider that vocational training is—

(*a*) needed;

(*b*) practicable in your locality.

III. Please state the centres in which you consider vocational training should be given, and specify the industry or craft in relation to which vocational training should be imparted in those centres. Please state reasons for your answer.

IV. (*a*) Do you consider that more schools of handicrafts of the existing type are needed ? Please give specific reasons for your answer.

(*b*) If your answer is in the affirmative, name the centres at which you consider such schools should be established and the industries which should be taken up at each centre.

V. What are the chief vocations (other than agriculture, Government service and the learned professions) followed by the people in your locality ?

VI. State approximately the population with castes which follow various vocations in your locality.

VII. What are the important cottage industries and crafts in your locality ?

VIII. Specify briefly the industries and crafts in your locality which require any of the following :—

(*a*) The use of improved methods and appliances without a necessity for theoretical education ;

(*b*) An elementary or other standard of general education with a strongly utilitarian bias ;

(*c*) Manual skill without a necessity for improved appliances in which increased output is solely dependent on assured markets.

IX. Was your locality famous at any time for any special craft of manufacture ? Please specify them.

X. Will it be possible to revive decaying or dead industries by means of special vocational training ? Please give reasons for your views.

XI. What demand is there in your locality for skilled and unskilled labour ? Please specify the demand which exists by naming the professions, crafts or industries.

XII. Apart from any general education or vocational training which might be given, do you think that peripatetic teachers, experts in their own subjects, should be sent out to villages to show villagers, *e.g.*, those engaged in cottage industries, how to improve their work ?

XIII. Do you consider a minimum educational qualification necessary for a vocational course ? If so, please state the minimum.

XIV. At what stage or stages of general education do you consider that vocational training should be begun, *i.e.*, after the primary or after the middle school standard ?

XV. Is it desirable to establish schools for general education in close connexion with and in the neighbourhood of mills, factories and farms (*e.g.*, Government farms) in order that boys may continue general education with actual employment or apprenticeship in industries ?

XVI. Should separate schools be established unconnected with mills or factories ?

XVII. What in your opinion should be the duration of a course of vocational training ?

PART C.—TECHNICAL AND TECHNOLOGICAL TRAINING

XVIII. Do you consider, in view of the present industrial condition of the Central Provinces and Berar, that provision should be made for technical and technological education in this province ? Please give reasons for your answer. If your answer is in the affirmative, state definitely the nature of the provision you would recommend, the industries or occupations in connection with which it should be given and the minimum educational and other qualifications which you would consider necessary in persons likely to benefit from it.

PART D.—COMMERCIAL EDUCATION

XIX. Do you consider, in view of the present industrial and commercial condition of the Central Provinces and Berar that provision should be made for commercial education in this province ?

XX. If your answer to XIX is in the affirmative, what is the nature of the education you would recommend and the stage or stages of general education at which it should be given ?

APPENDIX II

The list of persons who replied to the Questionnaire.

1. Commercial Director, Asbestos Cement, Ltd., Kymore, Central Provinces.
2. Sardar Sahib Ishar Singh, Inspector of Schools, Jubbulpore.
3. Mr. H. S. Staley, Inspector of Schools, Nagpur.
4. President, Municipal Committee, Saoner.
5. Revd. E. W. Menzel, Bisrampur, Central Provinces *via* Bhatapara.
6. The Principal, City College, Nagpur.
7. Mr. F. S. Dhagat, Pleader, Damoh.
8. The Head Master, Anglo-Vernacular Middle School, Seoni.
9. Mr. T. R. Gangrade, Senior Deputy Inspector of Schools, Hoshangabad.
10. The President, Municipal Committee, Akot.
11. Sir Hari Singh Gour, Kt., Nagpur.
12. Mr. G. S. Sharma, Teacher, Hindi Bhashi Sangh, High School, Nagpur.
13. Mr. G. G. Shere, Head Master, Government High School, Yeotmal.
14. Mr. D. P. Gupta, Lecturer in Manual Training and Drawing, Spence Training College, Jubbulpore.
15. Mr. B. H. Munje, Professor, City College, Nagpur.
16. Mr. T. Y. Deo, Boy Scout Association, Nagpur.
17. Rai Sahib B. B. Verma, Head Master, Government High School, Chhindwara.
18. The Head Mistress, Government Girls' High School, Amraoti.
19. The Chairman, District Council, Mandla.
20. The Head Master, Government High School, Saugor.
21. The Chairman, District Council, Drug.
22. The President, Municipal Committee, Balaghat.
23. The Head Master, Government High School, Damoh.
24. The Head Master, Government High School, Balaghat.
25. The Head Master, Government High School, Raipur.
26. The Electrical Adviser to Government, Central Provinces and Berar, Nagpur.
27. The Vice-Chairman, District Council, Betul.
28. The Secretary, Municipal Committee, Khandwa.
29. The Head Master, Government High School, Betul.
30. The Head Master, Victoria High School, Khairagarh.
31. Col. K. V. Kukday, C.I.E., I.M.S. (Retd.), Nagpur.
32. Mr. N. L. Inamdar, M.A., T.D., Teacher, New High School, Amraoti.
33. Rao Bahadur W. R. Bhat, Private Practitioner, Amraoti.
34. Mr. Abdul Azim, Retired Superintendent, Deputy Commissioner's Office, Bhandara.
35. Mr. B. J. Babar, Teacher, Anglo-Vernacular Middle School, Dhamtari.
36. Mr. S. A. Rauf Shah, M.L.A., Pandharkawada.
37. Khan Sahib Khwaja Latif Ahmad, Assistant Inspector of Schools, Berar Circle, Amraoti.
38. Mr. R. D. Saranjame, President, Amraoti District Educational Officers' Union, Amraoti.
39. Revd. Th. L. Seybold, Principal, St. Paul's High School, Raipur.
40. Mr. S. J. Bhagwat, Head Master, Aided High School, Dhamangaon.
41. The Head Master, Monro High School, Bhandara.
42. The Head Master, Government High School, Basim.
43. The Head Master, Government High School, Bilaspur.
44. Rai Bahadur Dadu Dwarkanath Singh, Talukedar, Seoni.
45. The Head Master, Government High School, Khandwa.
46. The President, Town Municipal Committee, Amraoti Town.
47. Mr. A. G. F. Farquhar, I.C.S., Deputy Commissioner, Saugor.
48. Mr. S. P. Pathak, Deputy Inspector of Schools, Saugor.
49. Mr. V. R. Dani, Head Master, Government High School, Akola.
50. Mr. D. R. Rutnam, I.C.S., Deputy Commissioner, Raipur.
51. Mr. D. P. Verma, Deputy Inspector of Schools, Seoni.
52. The Head Master, Government High School, Buldana.
53. The Head Master, Government Marathi High School, Amraoti.
54. Revd. T. W. Gardiner, Principal, Hislop College, Nagpur.
55. The Head Master, Craddock High School, Wardha.
56. The Head Master, Municipal High School, Umrer.

APPENDIX II—*contd.*

The list of persons who replied to the Questionnaire—*contd.*

57. The Superintendent, Neill City High School, Nagpur.
58. Mr. E. Brewster, Superintendent, Reformatory and Robertson Industrial School, Jubbulpore.
59. Mr. Ghulam Ahmad Hasan, Chairman, Local Board, Chandur.
60. The Manager, R. S. Reckchand Gopaldas Mohota Spinning and Weaving Mills, Akola.
61. The Head Master, Government High School, Narsinghpur.
62. The Head Master, H. C. High School, Burhanpur.
63. The Principal, Central College for Women, Nagpur.
64. The Head Master, S. B. High School, Telhara.
65. The President, Notified Area Committee, Deulgaon Raja.
66. Mr. Indrajit Singh, Post-Graduate Student, Akaltara, Bilaspur.
67. Mr. V. R. V. Subhedar, L. M. E., Szugor.
68. Mr. K. N. Rohan, B.Sc., LL.B., Saugor.
69. Mr. R. L. Baronia, Retired Deputy Inspector of Schools, Saugor.
70. Mr. S. P. Shrivastava, Science Teacher, K. Hitkarini High School, Jubbulpore.
71. The President, Municipal Committee, Pulgaon.
72. The Chairman, District Council, Akola.
73. Rai Sahib A. L. Mukerji, Head Master, Model High School, Jubbulpore.
74. The Head Master, Municipal High School, Ellichpur Cantonment.
75. Mr. P. V. Deshmukh, Banker and Factory Owner, Member, Board of Agriculture, Central Provinces and Berar, Nagpur.
76. The Head Master, City High School, Ellichpur City.
77. Mr. Tahir Ali, Vice-President, Municipal Committee, Burhanpur.
78. Mr. V. K. Soman, Mehkar, district Buldana.
79. The Head Master, Government High School, Chanda.
80. Mr. S. G. Bokare, Member, High School Committee, Chanda.
81. Mr. P. J. H. Stent, I.C.S., Commissioner, Nagpur.
82. Mr. B. Chandra, Head Master, K. Hitkarini High School, Jubbulpore.
83. Rao Bahadur G. R. Kothare, Chairman, Central Provinces and Berar Factory Owners' Association, and Member of the Advisory Board of Industries, Khamgaon.
84. Mr. Sarfaraz Khan, Head Master, Anjuman High School, Khamgaon.
85. The Principal, Hitkarini City College, Jubbulpore.
86. The Deputy Commissioner, Bilaspur.
87. The Secretary, Municipal Committee, Seoni-Malwa.
88. The Manager, Anglo-Vernacular High School, Timarni.
89. The Vice-President, Municipal Committee, Darwha.
90. Mr. R. M. Wathodkar, Retired Sub-Judge, Bhandara.
91. The Superintendent, Government Printing, Central Provinces, Nagpur.
92. Mr. H. Dewey, I.C.S., Deputy Commissioner, Bhandara.
93. The Honorary Secretary, District Council, Balaghat.
94. The President, Municipal Committee, Basim.
95. The Inspectress of Schools, Jubbulpore Circle, Jubbulpore.
96. The Head Master, New English High School, Akot.
97. The Deputy Commissioner, Yeotmal.
98. The Head Master, Government High School, Betul.
99. The Vice-Chairman, District Council, Betul.
100. Rao Sahib D. Y. Rajurkar, Chairman, District Council, Akola.
101. The Sub-Divisional Officer, Nagpur.
102. The Sub-Divisional Officer, Umrer.
103. The Sub-Divisional Officer, Katol-Saoner.
104. Mr. M. I. Rahim, I.C.S., Deputy Commissioner, Yeotmal.
105. The Deputy Commissioner, Nimar, Khandwa.
106. The Sub-Divisional Officer, Rehli, district Saugor.
107. The Deputy Commissioner, Amraoti.
108. Mr. R. J. J. Hill, I.C.S., Deputy Commissioner, Jubbulpore.
109. The Senior Deputy Inspector of Schools, Wardha.
110. The Senior Deputy Inspector of Schools, Balaghat.

APPENDIX III—*concld.*

The list of persons who replied to the Questionnaire—*concld.*

111. The Sub-Divisional Officer, Balaghat.
112. The Tahsildar, Balaghat.
113. The Tahsildar, Waraseoni.
114. The Tahsildar, Baihar.
115. The Deputy Commissioner, Drug.
116. The President, Municipal Committee, Karanja.
117. Mr. G. B. Oka, Pensioner, and Member, District Council, Jubbulpore.
118. Mr. A. L. Khan, Pleader, and Vice-Chairman, Local Board, Murwara.
119. The Vice-Chairman, District Council, Jubbulpore.
120. Mr. A. P. Tripathi, Malguzar, Mandla.
121. Mr. A. Prasad, Member, District Council, Jubbulpore.
122. Mr. Alay Hasan, Extra-Assistant Commissioner, and Officer-in-Charge, Court of Wards, Nagpur.
123. Khan Sahib Nazir Abbas, Retired Divisional Forest Officer, Nagpur.
124. The Sub-Divisional Officer, Damoh.
125. The Tahsildar, Burhanpur.
126. Mr. H. E. McClenaghan, I.C.S., Deputy Commissioner, Nagpur.
127. The President, Municipal Committee, Balaghat.
128. The Tahsildar, Ramtek.
129. Mr. A. J. Rodrick, Sub-Divisional Officer, Chhindwara.
130. Mr. L. H. Dube, Extra-Assistant Director of Agriculture, Chhindwara.
131. Mr. R. K. Haridas, Deputy Inspector of Schools, Chhindwara.
132. Mr. V. S. Asolkar, Deputy Inspector of Schools (Pench Valley School), Parasia.
133. Revd. E. Raman, Swedish Mission, Amarwara.
134. Mr. R. P. Verma, Honorary Secretary, Central Bank, Seoni.
135. Mr. J. S. K. Patel, Professor, Hislop College, Nagpur.
136. The Secretary, District Council, Yeotmal.
137. Mr. P. L. Bhargava, President, Municipal Committee, Seoni.

List of persons who have sent special notes on certain topics with refereace to item 5 of the Vocational Training Questionnairs.

1. Mr. B. E. Dadachanji, Professor, Morris College, Nagpur.
2. Mr. C. B. Parakh, B.A., LL.B., Advocate, Nagpur.
3. Mr. P. L. Bhargava, Bar.-at-Law, President, Municipal Committee, Seoni.
4. Mr. G. S. Sharma, Teacher, Hindi Bhashi Sangh, High School, Nagpur.
5. Mr. S. S. Thakur, Manager, Repair Workshop, Ballarpur Colliery.
6. Mrs. M. Dravid, Head Mistress, Government Girls' High School, Amraoti.
7. The Chairman, District Council, Drug.
8. Dr. W. R. Bhat, Private Practitioner, Amraoti.
9. Mr. S. P. Shrivastava, Science Teacher, K. Hitkarini High School, Jubbulpore.
10. Rai Sahib A. L. Mukerji, Head Master, Model High School, Jubbulpore.
11. Mr. Tahir Ali, Member, Municipal Committee, Burhanpur.
12. Revd. W. C. Seybold, Principal, St. Paul's High School, Raipur.
13. Mr. B. J. Babar, Teacher, Anglo-Vernacular School, Dhamtari.
14. Mr. W. H. Shoobert, I.C.S., Deputy Commissioner, Nagpur.
15. Mr. M. H. Nanavati, Assistant Professor, Morris College, Nagpur.
16. Mr. F. J. Cuerden, Principal, Government Engineering School, Nagpur.
17. Mr. M. L. Dalal, Secretary, The Savatram Ramprasad Mills Co., Ltd., Akola.
18. The Chief Conservator of Forests, Central Provinces.
19. Mr. B. H. Munje, Professor, City College, Nagpur.
20. The Extra-Assistant Commissioner, Nagpur.
21. Sir Sorabji B. Mehta, Kt., Nagpur.
22. Mr. N. L. Inamdar, M.A., T. D., New High School, Amraoti.
23. The Manager, The Perfect Pottery Co., Ltd., Jubbulpore.
24. Mr. P. N. Raina, Assistant Inspector of Schools, Jubbulpore Circle, Jubbulpore.
25. Mr. J. R. Jahagirdar, Retired Senior Deputy Inspector of Schools, Chanda.
26. The Principal, College of Agriculture, Nagpur.

APPENDIX III

Statistical summary of the progress of education in the Central Provinces and Berar

TABLE I

Increase in the number of education institutions and pupils.

Years	Collegiate Education		High School Education	
	Schools	Pupils	Schools	Pupils
(1)	(2)	(3)	(4)	(5)
1912	6	714	37	3,039
1917	7	1,348	50	4,982
1922	7	971	51	3,116
1927	9	1,833	56	5,085
1932	11	2,405	78	8,113
1937	16	3,314	92	9,995
Percentage of increase since 1912 ..	167	364	149	229

Years	Middle School Education		Primary School Education		Special Schools	
	Schools	Pupils	Schools	Pupils	Schools	Pupils
(1)	(6)	(7)	(8)	(9)	(10)	(11)
1912 ..	385	50,022	3,280	234,386	15	774
1917 ..	407	54,007	4,014	287,466	25	1,258
1922 ..	520	63,694	4,313	260,412	36	2,488
1927 ..	545	90,664	4,523	291,099	54	2,902
1932 ..	608	103,590	4,566	332,623	72	3,763
1937 ..	664	115,022	4,746	351,376	61	4,111
Percentage of increase since 1912.	72	130	45	50	307	431

APPENDIX III—*contd.*

Statistical summary of the progress of education in the Central Provinces and Berar

TABLE II

Increase in expenditure on education.

Year	University and Colleges	High Schools	Middle Schools	Primary Schools	Special Schools	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1912 ..	1,58,775	2,16,296	5,61,570	10,30,075	1,08,413	20,75,129
1917 ..	2,90,489	3,45,734	8,28,946	14,31,206	2,14,055	31,10,430
1922 ..	5,40,949	4,97,746	15,66,243	25,11,515	4,75,102	55,91,555
1927 ..	8,04,247	6,49,681	18,55,491	29,09,144	4,92,151	67,10,714
1932 ..	9,02,594	8,90,716	21,42,916	30,96,389	4,46,460	74,79,075
1936 ..	10,00,522	10,41,248	22,45,185	31,51,222	4,63,152	79,01,329
Percentage of increase since 1912.	536	396	300	206	327	281

Statistical summary of the progress of education in the Central Provinces and Berar

TABLE III

The sources of funds for education.

Year	Government Funds	Board Funds	Municipal Funds	Fees	Other Sources	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1912 ..	4,80,118	9,29,265	2,23,750	2,03,180	2,38,816	20,75,129
1917 ..	7,75,396	13,05,028	3,89,764	4,17,821	2,22,421	31,10,430
1922 ..	36,11,435	7,68,583	4,39,772	4,37,902	3,33,863	55,91,555
1927 ..	39,00,540	9,53,237	5,59,180	9,13,730	3,84,027	67,10,714
1932 ..	32,49,449	17,00,425	7,67,604	13,47,838	4,13,759	74,79,075
1936 ..	32,94,310	16,45,625	8,86,858	16,29,637	4,44,899	79,01,329
Percentage of increase since 1912.	586	77	297	702	86	281

APPENDIX III—*concld.*

Statistical summary of the progress of education in the Central Provinces and Berar

TABLE IV

Cost per pupil per year in different kinds of Educational Institutions.

The stage of education	Cost per head 1912			1917			1922		
(1)	(2)			(3)			(4)		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
1. Collegiate	222	6	0	215	10	4	556	14	4
2. High School	69	12	8	70	3	5	164	12	2
3. Middle School	11	4	1	16	3	11	39	14	1
4. Primary School	4	8	2	5	10	2	10	6	0
5. Special School	151	14	7	199	10	10	258	3	4

The stage of education	Cost per head 1927			1932			1936			Increase since 1912
(1	(5)			(6)			(7)			(8)
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Per cent
1. Collegiate ..	438	12	2	376	8	9	305	7	9	37
2. High School ..	132	8	6	114	14	10	109	14	8	57
3. Middle School ..	21	13	7	22	1	3	20	14	2	85
4. Primary School ..	10	12	4	10	4	4	10	0	6	127
5. Special School ..	209	5	4	148	9	2	142	2	6	—6

Statistical summary of the progress of education in the Central Provinces and Berar

TABLE V

Government contribution and percentage to total Government Revenues as compared with other provinces in India.

Name of province	Expenditure on education in lakhs of rupees		Percentage to revenue	
	1927	1935	1927	1935
(1)	(2)	(3)	(4)	(5)
Madras	202	251	13.3	15.3
Bengal	148	132	14.0	11.3
Bombay	199	180	13.6	15.3
United Provinces	196	207	17.2	17.2
Punjab	151	159	13.9	15.2
Central Provinces	61	48	10·40	9.40

Figures for the Central Provinces are taken from the Central Provinces General Administration Department Reports.

APPENDIX IV

Trained and untrained teachers in primary schools

TABLE I

The number of trained and untrained teachers in district council primary schools.

Name of Circle and District	Number of teachers			Percentage of trained teachers
	Trained	Untrained	Total	
(1)	(2)	(3)	(4)	(5)
Nagpur Circle—				
Nagpur	282	32	314	89.8
Wardha	192	21	213	90.1
Chanda	134	175	309	43.0
Betul	107	48	155	69.0
Chhndwara	348	44	392	88.7
Total ..	1,063	320	1,383	76.8
Jubbulpore Circle—				
Jubbulpore	314	69	383	81.9
Saugor	444	58	502	88.4
Mandla	146	40	186	78.4
Nimar	190	21	211	90.4
Hoshangabad	475	139	614	77.4
Total ..	1,569	327	1,896	82.7
Chhattisgarh Circle—				
Raipur	409	367	776	52
Bilaspur	430	161	591	73
Drug	237	78	315	75
Bhandara	118	307	425	38
Balaghat	203	120	323	63
Total ..	1,397	1,033	2,430	57.5
Berar Circle—				
Amraoti	425	263	688	62
Akola	253	418	671	38
Buldana	283	323	606	47
Yeotmal	151	278	429	35
Total ..	1,112	1,282	2,394	46.4
Grand Total ..	5,141	2,962	8,103	63.4

APPENDIX IV—*concld.*

Trained and untrained teachers in primary schools

TABLE II

The number of trained and untrained teachers in municipal primary schools.

Name of Circle and District	Number of teachers			Percentage of trained teachers
	Trained	Untrained	Total	
(1)	(2)	(3)	(4)	(5)
Nagpur Circle—				
Nagpur	344	54	398	87.0
Wardha	103	57	160	64.3
Chanda	54	9	63	85.7
Betul	27	8	35	77.1
Chhindwara	50	20	70	71.4
Total ..	578	148	726	79.6
Jubbulpore Circle—				
Jubbulpore	152	21	173	87.8
Saugor	127	17	144	88.1
Hoshangabad	110	42	152	72.3
Mandla	12	7	19	63.1
Nimar	112	54	166	67.4
Total ..	513	141	654	78.4
Chhattisgarh Circle—				
Raipur	86	25	111	77.5
Bilaspur	54	12	66	82
Drug	24	4	28	86
Bhandara	84	14	86	85
Balaghat	16	4	20	75
Total ..	264	59	323	81.7
Berar Circle—				
Amraoti	124	126	250	50
Akola	80	87	167	48
Buldana	80	71	151	53
Yeotmal	82	80	162	51
Total ..	366	364	730	50.1
Grand Total ..	1,721	712	2,433	70.7

TABLE III

The number of trained and untrained teachers in aided primary schools.

Name of Circle and District	Number of teachers			Percentage of trained teachers
	Trained	Untrained	Total	
(1))	(2)	(3)	(4)	(5)
Nagpur Circle	53	104	157	33.8
Jubbulpore Circle	48	33	81	59.3
Chhattisgarh Circle	80	87	167	47.9
Berar Circle	*Nil*	71	71	*Nil*
Total ..	181	295	476	38.0

APPENDIX V

Single teacher primary schools

(1)		Number of schools (2)	Number enrolled (3)	Number of teachers (4)
Primary Schools in the province	..	4,746	351,376	12,286
Single Teacher Primary Schools	..	945	30,630	945

No. of teachers teaching more than one section or class— 6,715

Average number of pupils in charge of each teacher in asingle teacher school· --82·4

APPENDIX VI

Scholars by classes and ages for the year 1931-32

Ages		Primary				Middle			
		I	II	III	IV	V	VI	VII	VIII
Below 5	..	2,054	17	..	..	..	..	..	..
5 to 6	..	18,705	1,087	46	..	..	..	..	..
6 to 7	..	36,781	6,498	799	18	..	..	..	..
7 to 8	..	40,321	15,269	4,671	435	12	..	..	..
8 to 9	..	30,128	20,613	10,791	2,615	112	19	2	1
9 to 10	..	17,501	18,924	15,079	7,174	662	94	11	2
10 to 11	..	8,973	12,931	15,091	11,311	1,890	519	58	5
11 to 12	..	3,883	7,293	12,398	13,011	2,997	1,326	367	72
12 to 13	..	1,488	3,890	7,696	11,573	3,368	1,985	1,014	224
13 to 14	..	547	1,509	4,100	8,503	3,004	2,492	1,695	602
14 to 15	..	216	562	1,996	5,207	2,223	2,392	2,176	1,027
15 to 16	..	61	244	905	2,822	1,350	1,968	2,217	1,134
16 to 17	..	22	48	330	1,331	706	1,166	1,882	1,164
17 to 18	..	7	19	59	530	324	706	1,246	813
18 to 19	..	11	6	12	158	125	242	728	468
19 to 20	..	2	3	3	50	45	106	310	243
Over 20	..	2	8	3	26	17	40	160	126
Total	..	160,702	88,921	74,189	64,764	16,835	13,055	11,866	5,881

European schoolars are included in the above figures

		High			Total for Primary, Middle and High	Intermediate		Degree		Post-graduate		Total	Grand total
		IX	X	XI		1st year	2st year	1st year	2nd year	1st year	2nd year		
Below 5	..	..	..	..	2,071	..	..	..	..	..	..	..	2,071
5 to 6	..	..	..	..	19,838	..	..	..	..	..	..	..	19,838
6 to 7	..	..	..	..	44,096	..	..	..	..	..	..	..	44,096
7 to 8	..	..	..	..	60,708	..	..	..	..	..	..	..	60,708
8 to 9	..	..	..	..	64,191	..	..	..	..	..	..	..	64,191
9 to 10	..	3	..	..	59,750	..	..	..	..	..	..	..	59,750
10 to 11	..	5	..	..	51,083	..	..	..	..	..	..	..	51,083
11 to 12	..	9	1	3	41,060	..	..	..	..	..	..	..	41,060
12 to 13	..	29	20	4	31,291	..	..	..	..	..	..	..	31,291
13 to 14	..	143	34	11	22,640	..	..	..	..	..	..	..	22,640
14 to 15	..	369	138	36	16,342	..	..	..	..	..	..	..	16,342
15 to 16	..	602	353	114	11,770	7	1	..	..	..	..	8	11,778
16 to 17	..	687	493	306	8,135	36	3	1	..	..	..	40	8,175
17 to 18	..	615	594	395	5,308	89	23	3	1	1	..	117	5,425
18 to 19	..	399	438	377	2,964	128	75	13	1	..	..	217	3,181
19 to 20	..	200	344	375	1,681	117	99	49	23	2	..	290	1,971
Over 20	..	131	309	576	1,398	185	343	258	274	53	30	1,143	2,541
Total	..	3,192	2,724	2,197	4,44,326	562	544	324	299	56	30	1,815	446,141

European scholars are included in the above figures.

APPENDIX VII

Appointments in Government services in 1935-36

TABLE I

Provincial services.

Name of the Department	Total number of posts	Total appointments made during 1935-36					
		Graduates	Inter passed	Matric passed	Vernacular final passed	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Education Department—							
(*a*) Men's Branch ..	101	10	..	..	..	..	10
(*b*) Women's Branch ..	7	1	..	..	..	..	1
(*c*) General Service, Engineering School, Nagpur.	5	1	..	..	..	..	1
2. Medical Department ..	71	1	1	..	..	..	2
3. Civil Veterinary Department.	5	1	..	..	..	..	1
4. Appointments Department, Central Provinces and Civil Secretariat.	96	7	3	..	..	1	11
5. Excise Department ..	21	..	..	..	..	..	..
6. Co-operative Societies ..	5	1	..	..	..	..	1
7. Government Printing ..	2	1	..	..	..	..	1
8. Agriculture Department ..	24	..	..	..	..	..	..
9. Public Health Department	3	..	..	..	..	..	..
10. Posts and Telegraphs Department, Central.	15	..	..	..	..	..	..
11. Judicial Department ..	119	9	..	..	..	..	9
12. Industries Department ..	13	..	..	1	..	..	1
13. Public Works Department	37	..	..	..	..	..	..
14. Jail Department ..	4	..	..	..	..	..	..
15. Survey and Settlement and Land Records Department.	4	..	..	..	..	..	..
16. Forest Department ..	29	..	..	..	..	..	..
17. Income-Tax Department ..	16	..	..	..	..	..	..
18. Police Department ..	19	1	..	..	..	..	1
Total ..	596	33	4	1	..	1	39

APPENDIX VII—*contd.*

Appointments in Government services in 1935-36

TABLE II

Subordinate services

Name of the Department	Total number of posts	Total appointments made during 1935-36					
		Graduates	Inter passed	Matric passed	Vernacular final passed	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Education Department—							
(*a*) Men's Subordinate Educational Service.	806	67	14	18	..	..	99
(*b*) Women's Subordinate Educational Service.	40	..	1	7	..	..	8
2. Medical Department ..	355	..	..	13	..	1	14
3. Civil Veterinary Department.	152	..	..	6	..	..	6
4. Excise Department ..	286	1	3	9	..	..	13
5. Co-operative Societies ..	55	6	..	..	..	..	6
6. Government Printing ..	253	..	2	7	94	..	103
7. Public Works Department—							
(*a*) Permanent ..	360	..	..	5	..	..	5
(*b*) Temporary ..	43	..	..	4	..	1	5
8. Agriculture Department ..	162	10	..	..	..	..	10
9. Public Health Department	55	..	..	..	..	..	..
10. Posts and Telegraphs Department.	363	..	1	2	..	..	3
11. Industries Department ..	91	..	..	2	3	..	5
12. Revenue Department—							
(*a*) Commissioner, Nagpur Division.	70	6	..	..	..	..	6
(*b*) Commissioner, Chhattisgarh Division.	59	4	..	..	..	..	4
(*c*) Commissioner, Jubbulpore Division.	71	2	..	..	..	..	2
(*d*) Commissioner, Berar Division.	61	1	..	..	..	..	1
13. Survey and Settlement and Land Records Department.	46	..	..	..	..	..	..
14. Forest Department ..	3,280	..	4	38	73	..	115
15. Income-Tax Department ..	20	..	..	..	..	..	..
16. Police Department ..	11,525	10	21	78	504	..	613
Total ..	17,153	107	46	189	674	2	1,018

APPENDIX VII—*contd.*

Appointments in Government services in 1935-36

TABLE III

Ministerial services

Name of the Department	Total number of posts	Total appointments made during 1935-36					
		Graduates	Inter passed	Matric passed	Vernacular final passed	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Education Department—							
(*a*) Director of Public Instruction's Office.	34	..	1	4	..	..	5
(*b*) Subordinate Offices ..	122	1	..	15	1	..	17
2. Office of Legal Remembrancer to Government.	11	..	..	2	..	..	2
3. Office of Secretary to Government, Central Provinces Legislative Council.	10	..	..	..	..	..	..
4. Medical Department ..	96	1	..	..	..	..	1
5. Civil Veterinary Department.	11	..	..	..	..	..	..
6. Appointments Department, Civil Secretariat.	148	4	1	..	..	1 (Lady Typist)	6
7. Excise Department ..	16	1	1	..	..	..	2
8. Agriculture Department ..	67	..	..	2	..	..	2
9. Public Health Department	21	..	..	..	..	..	..
10. Posts and Telegraphs Department.	2,051	..	3	32	..	..	35
11. Industries Department ..	38	..	..	..	..	..	..
12. Public Works Department—							
(*a*) Permanent ..	463	1	..	22	..	5	28
(*b*) Temporary ..	11	..	..	..	..	1	1
13. Registrar's Office, Co-operative Societies.	24	..	1	1	..	..	2
14. Office of Village Panchayat Officer.	1	..	..	..	..	..	..
15. Office of Secretary, Village Uplift Board.	1	1	..	..	..	..	1
Total ..	3,125	9	7	78	1	7	102

APPENDIX VII—*concld.*

Appointments in Government services in 1935-36

TABLE III—*concld.*

Ministerial services—concld.

Name of the Department	Total number of posts	Total appointments made during 1935-36					
		Graduates	Inter passed	Matric passed	Vernacular final passed	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
16. Office of Registrar of Firms	1	1	..	..	..	..	1
17. Office of Registrar of Joint Stock Companies.	2	..	..	..	..	..	..
18. Government Printing ..	35	1	..	..	..	..	1
19. Jail Department ..	46	..	..	1	..	..	1
20. Revenue Department—							
Nagpur Division ..	331	1	1	23	1	1	27
Berar Division ..	383	2	1	27	..	..	30
Commissioner's Office—							
Jubbulpore ..	14	..	..	1	..	..	1
Chhattisgarh Division ..	294	..	..	16	5	..	21
Mandla ..	46	..	..	..	..	..	..
Nimar ..	54	..	..	2	..	..	2
Saugor ..	87	..	..	3	..	1	4
Jubbulpore ..	63	..	2	5	..	..	7
Hoshangabad ..	91	..	..	7	..	..	7
21. Judicial Department—							
(*a*) High Court—							
Permanent ..	88	7	1	11	..	1	20
Temporary ..	12	..	..	1	..	..	1
(*b*) District and Session Judges Office.	832	..	3	45	5	..	53
22. Survey and Settlement and Land Records Department.	24	..	..	..	..	..	..
23. Police Department ..	245	..	..	13	..	..	13
24. Forest Department ..	361	..	..	9	..	..	9
25. Income-Tax Department ..	75	..	..	1	..	..	1
Total ..	6,209	21	15	243	12	10	301

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Harda
Hoshangabad
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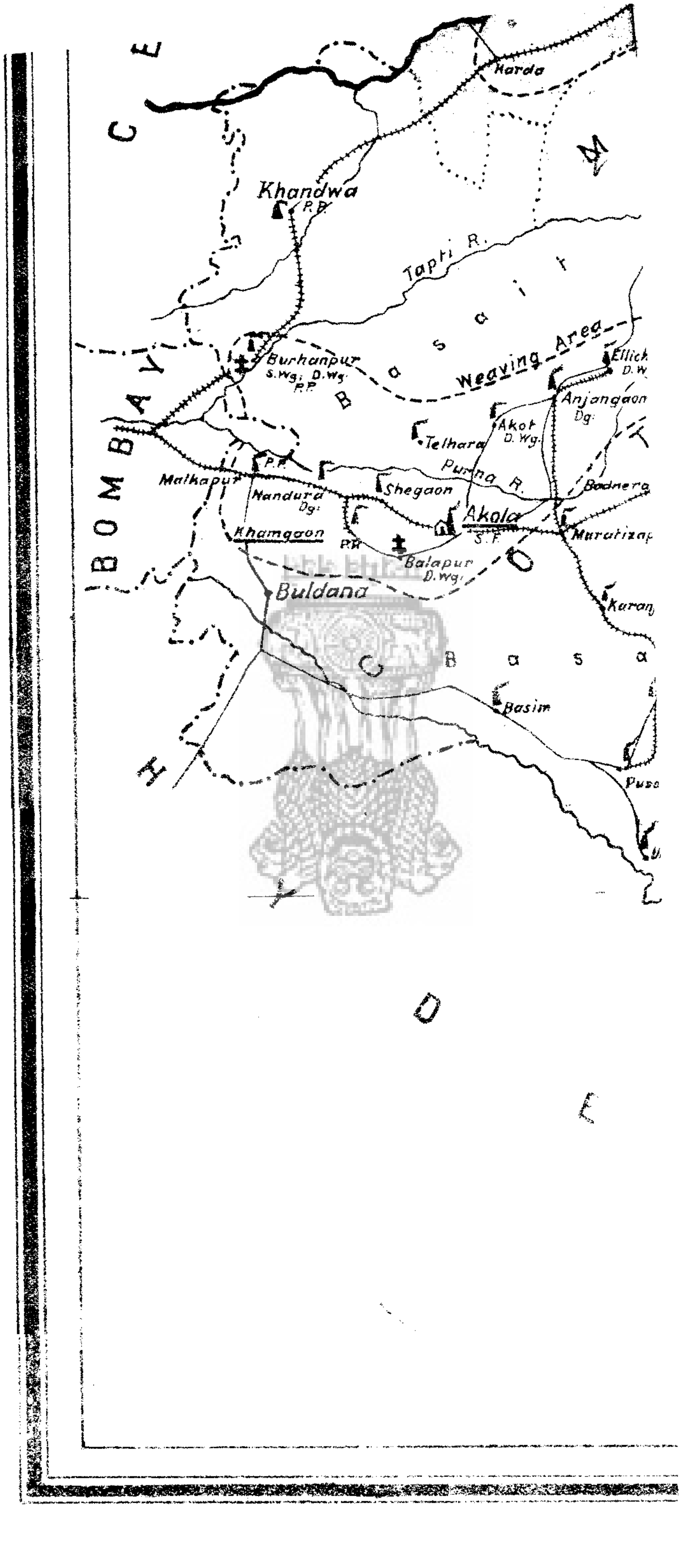
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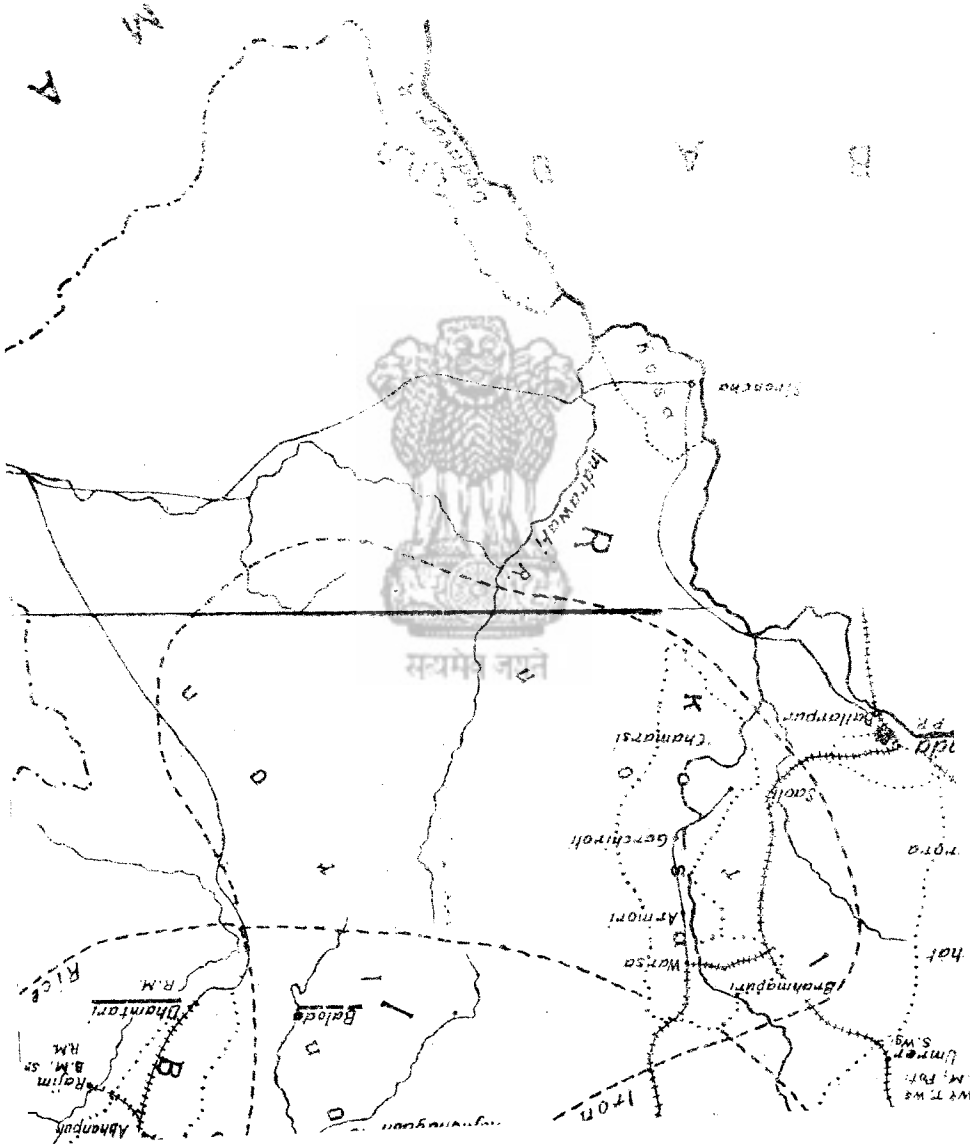
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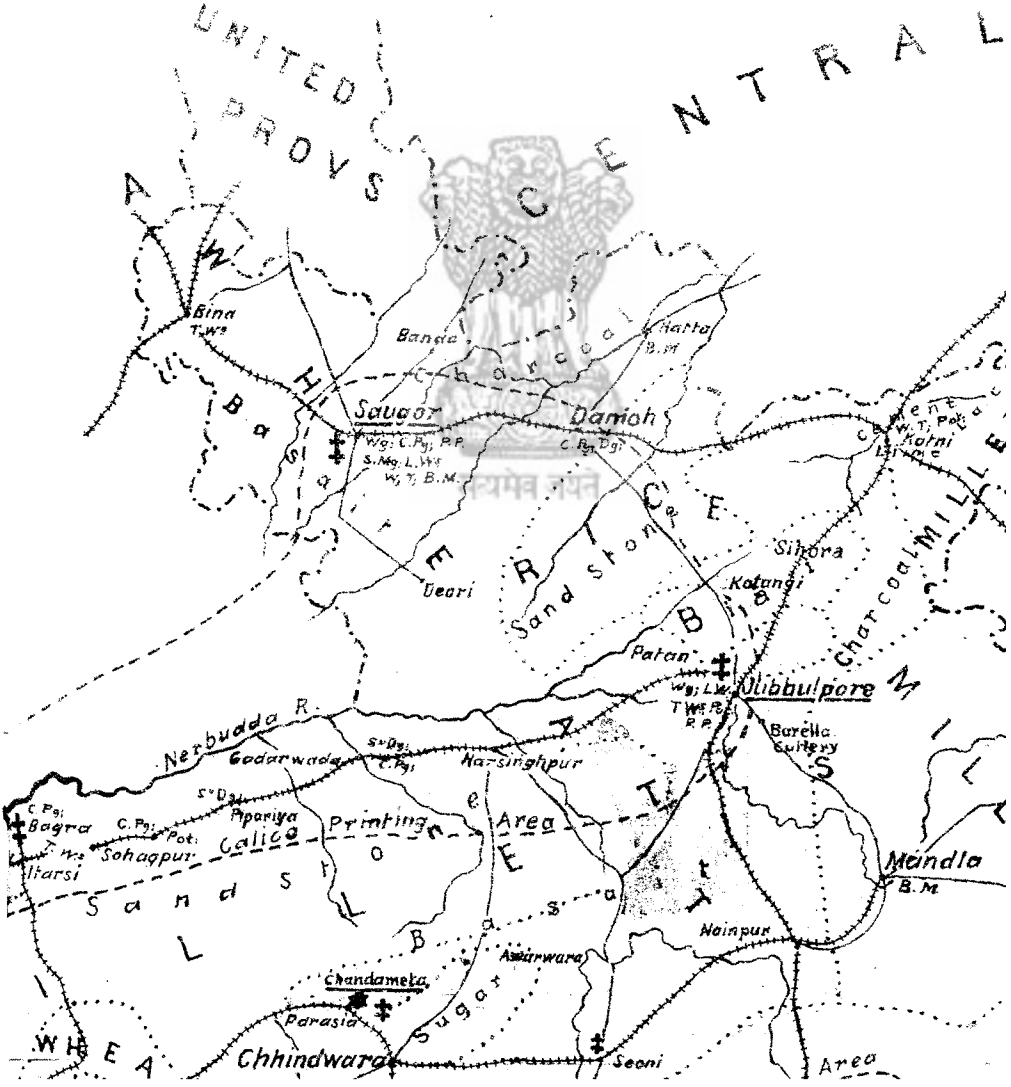

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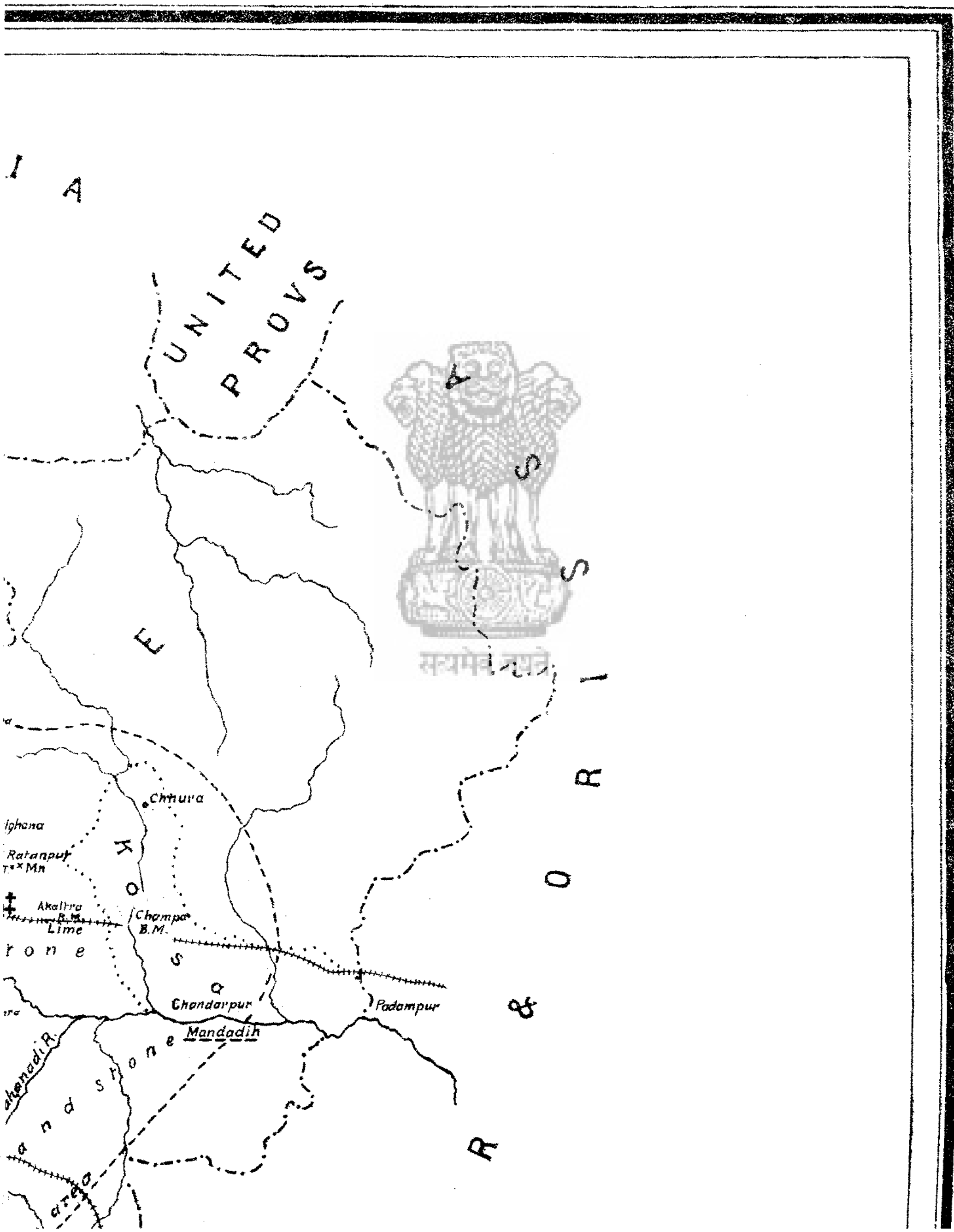
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REFERENCES

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Bidi	..	
Sugar	.	
Kosa	..	
Coal Mines	..	
Textile Mills	..	
Cotton Ginning and Pressing Factories		
Manganese		Mn.
Weaving	..	Wg.
Durree Weaving	..	D.Wg.
Saree Weaving	..	S.Wg.
Calico Printing	..	C.Pg.
Printing Press	..	P.P.
Bell Metal	..	B.M.
Leather Works	..	L.Ws
Tile Works	..	T.Ws
Soap Factory	..	S.F.
Wooden Toys	..	W.T.
Pottery	..	Pot
Workshops	..	

Industrial schools underlined

Pre-vocational schools underlined with dots

Main areas of Iron, Manganese, coal Weaving and Rice Mills enclosed by dotted line