

## GOVERNMENT OF INDIA TARIFF COMMISSION

# REPORT ON THE PRICE STRUCTURE OF INDUSTRIAL ALCOHOL

BOMBAY 1969



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#### GOVERNMENT OF INDIA

# MINISTRY OF PETROLEUM AND CHEMICALS AND MINES AND METALS (DEPARTMENT OF PETROLEUM AND CHEMICALS):

New Delhi, samuery 30, 1971.

#### ORDER

S.O.578.—In exercise of the powers conferred by section 18G of the Industries (Development and Regulation) Act, 1951 (65 of 1951), the Central Government hereby makes the following order to amend the Molasses Control Order, 1961 namely:—

- 1. (1) This order may be called the Molasses Control (Amendment) Order, 1971.
  - (2) It shall come into force on the date of its publication in the Official Gazette.
- 2. In the Molasses Control Order, 1961
- (i) for clause 3, the following clause shall be substituted, namely:
- shall not withstanding any contract to the contary sell 80% (eighty per cent) of the entire quantity, or such portion thereof, of molasses produced by him or held in stock by him to any person or person, as may be specified by general or special-order in each case by the Molasses Controller, and shall not dispose of such molasses in any other manner."
- (ii) for clause 7, the following clause shall be Substituted, namely:
- "7. Maximum Price at which Molasses May be Sold.—(1) 20% (twenty per cent) of the molasses of the grades specified in column 1 of the Schedule appended hereto shall not come within the purview of the price control detailed under the following sub-clauses:

- (2) For the remaining 80% of the production of molasses of the grades specified in column 1 of the Schedule appended here to—
  - (a) no molasses, other than that which may be specifically released by the Molasses Controller for purposes of export, shall be sold at a price higher than that specified in column 2 thereof;
  - (b) no molasses specifically released by the Molasses Controller to any exporter of molasses shall be sold at a price higher than Rs. 6.50 per 100 kgs. F.O.B. Indian Port.
- Note.—The price fixed in the schedule is exclusive of any excise duty or cess that may be levied under any law but includes cost of loading the molasses in tank wagons or tank lorries as may be arranged between the owner of a sugar factory and the purchaser."

(Sd/.) M. RAMAKRISHNAYYA

Joint Secretary to the Government of India.

(4/4/70/Ch. I)



#### PERSONNEL OF THE COMMISSION

SHRI B. N. BANERJI	•			•	•	•	Chairman
SHRI M. ZAHEER .		•	•	•			Member
SHRI S. SUBRAMANIAN							Member
SHRI F. H. VALLIBHOY	•				•		Member

SECRETARY

Dr. P. V. Gunishastri



#### GOVERNMENT OF INDIA

# MINISTRY OF PETROLEUM AND CHEMICALS AND MINES AND METALS (DEPARTMENT OF PETROLEUM AND CHEMICALS)

#### RESOLUTION

New Delhi, January 30, 1971.

Maximum ex-distillery prices for Ethyl Alcohol (Industrial Alcohol)

No. 4/4/70/Ch. I.— A number of representations including those from the All India Distiller's Association, were received by Government from time to time to the effect that the assumptions made by the Tariff Commission in its previous Report (1965) in respect of utilization of distillery capacity no longer hold good on account of the general shortage of molasses, and that the cost of production under certain heads taken into account by the Tariff Commission for determining the fair selling prices have gone up since the report was made in October, 1965.

- 2. In view of these representations, a reference was made to the Tariff Commission on the 24th April, 1968, under Section 12(d) of Tariff Commission Act, 1951 (50 of 1951) to review the price structure of alcohol and furnish its Report/recommendation to Government with particular reference to the following:
  - (i) whether there is any case for further increase in the price of alcohol and if so, to what extent:
  - (ii) whether it is necessary to continue the present uniform price based on the weighted average on an all-India basis or there should be different prices for different distilleries or group of distilleries;
  - (iii) whether it is feasible to lay down any formula as regards the price fixation based on utilization of capacity;
  - (iv) whether there is any case for increase in the additional charges to be loaded on to the basic price of alcohol on account of use of furnace oil and transport of

- molasses. In view of the shortage of molasses the distilleries are prepared to lift raw material from any distance provided reimbursement of the transport charges is allowed in full; and
- (v) any other matter which in the opinion of the Commission, is inecessary and useful for determining the fair price of alcohol having regard to the peculiar circumstances of this industry.

Having regard to the fact that some of the distilleries had actually stopped production even to the limited extent of availability of molasses on the ground that the controlled price of alcohol was un-economic and would hardly cover the cost of production, the price of alcohol was increased by Rs. 26 per kilo litre as an ad-hoc interim measure on the 2nd April, 1968, without prejudice to the recommendations made by the Tariff Commission in its Report (1965).

- 3. The Commission having conducted an enquiry submitted its report to Government in January, 1970. The main recommendations of the Commission are as follows:
  - (i) Since the Government of India have de-licensed the industrial alcohol industry, the capacity for which the State Governments have issued licences should be adopted as the licensed capacity. We, however, recommend that a technical survey of installed capacity of the industry should be undertaken at an early date with a view to determining the actual position of the extent of under-utilisation.
  - (ii) We feel that before additional licences are issued the economic units should be helped to increase their capacity to at least the level of 4,000 kilo litres in each case. We would suggest that as a working basis, until a technical reassessment of the issues involved in arriving at the level of the economic size is made, a size intermediate between the original figure of 4,500 kilo litres and 8,000 kilo litres which has been suggested by a number of interests, i.e. an installed capacity of 6,000 kilo litres per annum in round figures, may be adopted.
  - (iii) We would recommend that the controls on alcohol especially in respect of inter-State movement should be rationalised with a view to mitigating the hardships felt by producers and consumers. If considered necessary, a Committee consisting of the representatives of State and Central Excise authorities, consumers and producers

- may be constituted at an early date to examine the question of controls on alcohol in depth and evolve suitable remedial measures.
- (iv) Some positive steps should be taken to streamline the present system of controlled distribution of alcohol for ensuring regular supplies to consumers. We think that at least for the established units, there should be a basic quota from pre-determined sources as near to them as practicable. If the production of alcohol improves, they can be given additional quantities. Details of quotas could be worked out by the officials of the State Governments in consultation with the centre and placed before the next Annual Excise Ministers' Conference for consideration and decision. Timely issue of permits by the State Governments for lifting the alcohol produced by distilleries is also important and we hope that difficulties will be sorted out by the distilleries and their associations directly with the State Governments concerned.
  - (v) As an incentive to distilleries, 15 or 20 per cent of their production of alcohol may be left free of price control and the remaining 85 or 80 per cent made subject to allocations by Government. It may be added that distilleries which produce alcohol from a raw material other than sugar factory molasses should be able to sell that alcohol freely.
- (vi) In order to effect the technical improvement suggested by the Director, National Sugar Institute, in the matter of ensuring efficiency and improvement in the working conditions of distilleries, it would be necessary for the alcohol industry to engage trained and technically qualified persons, introduce a consultancy-cum-extension service and establish an Alcohol Technologists Association. This Association can conceivably play an important role in this direction by organising seminars/technical discussions between the distilleries so as to facilitate exchange of knowledge and experience in respect of technological improvements and generate better cost consciousness among the distilleries. This would, in the long run, be in the interest of not only of users of alcohol but also of the distillery industry itself.
- (vii) The question of linking up sugar factories to particular distilleries on a permanent basis needs to be explored with a view to rationalising the transport costs. We have already suggested a system of basis and variable

quotas for consumers of alcohol. Such a system could be extended to the distribution of molasses also in view of the fact that most of the consumers and producers of molasses are more or less within easy reach of each other. A basic quota of at least 50 per cent of the requirements of molasses from specific sugar factories should be issued straightaway to each distillery and the balance of requirements met on an equitable basis depending on the actual performance of sugar factories. We would suggest that the release of 20 per cent of the total supply of molasses for free sale may be considered sympathetically.

- (viii) In the interest of proper utilisation, preservation and avoidance of wastage of this essential national product, ways and means have to be devised so that the molasses produced is stored in proper condition before it is lifted by the distilleries. A way out should be found whereby the sugar industry could construct concrete or steel storage tanks in the place of the present kutcha storage to prevent both leakage and wastage of molasses.
  - (ix) We feel that a fresh effort should be made to persuade the State Governments to reconsider the question of replacing miscellaneous State levies by a suitable excise duty uniformally applicable in all the States.
  - (x) We are of the view that the present opiling of Rs. 150 per kilo litre of alcohol by way of incidence of transport and other charges payable on purchased molasses should be brought down and we recommend refixation at Rs. 100 per kilo litre of alcohol (100%). To make sure that only the actual expenses incurred by way of sales tax, transport and other handling charges are claimed and also to avoid any dispute, we further recommend that within the period of three months from the last day of the accounting year, each distillery, should file with the Excise Commissioner of the State, where the particular distillery is located a certificate obtained from a qualified auditor, giving details of the quantities of molasses purchased from each source, the sales tax paid, the transport charges incurred thereon and any other charges specifically incurred for the transport of molasses, and their average incidence per tonne of molasses consumed during the year. The extra price based on actuals within the ceiling of Rs. 100 per kilo litre of alcohol (100%

- will remain in force for the subsequent twelve month, that is, till the end of third month after the close of the succeeding financial year of the Company.
- (xi) As the ex-works costs estimated by us do not include the payments to be made to excise staff posted at the distilleries, we recommend that reimbursement be made to the distilleries on the basis of actual payment in the previous year. For reasons given in paragraph 34.3.3. we recommend that the extra charge on account of use of furnace oil need not be continued any further.
- (xii) It seems to us appropriate to provide for a token incentive to the distilleries to strengthen their storage arrangements. We have, therefore, added a figure of Rs. 6 per kilo litre of alcohol while estimating the future cost. This amount should be funded separately and utilised under the supervision of an appropriate authority, such as, the Molasses Controller, solely for the construction of storage tanks.
- (xiii) We recommend that the fair ex-works price of rectified spirit (100%) should be fixed at Rs. 215 per kilo litre and made applicable for the next two fiscal years, that is, upto 31st March 1972, but units with a capacity of 6.000 kilo litres and below per annum should be allowed an extra price of Rs. 25 per kilo litre, that is, Rs. 240 per kilo litre for a period of two years ending on 31st March, 1972, after which date this concession should be The existing extra price of Rs. 5 per kilo litre for denatured spirit, over and above that fixed for rectified spirit, in addition to the actual cost of denaturants used will stand and we recommend that it be continued for the next price period also. We further recommend that the extra price of Rs. 5 per kilo litre should be reduced to Rs. 2 per kilo litre, when denaturants are supplied by the purchasers themselves.
- (xiv) We recommend that the differential of the price for absolute alcohol assessed at the last inquiry at about 10 per cent higher than the price of rectified spirit be maintained. On that basis, the price of absolute alcohol (100%) would work out to Rs. 237 per kilo litre and this will be the price chargeable by any unit, if and when it produces and market absolute alcohol within the next two years, with the provision that when such absolute alcohol is manufactured by units which are entitled to an extra price of Rs. 25 per kilo litre, the same differential

should be made applicable to them over and above Rs. 237 recommended by us for the industry.

- (xv) We think it necessary to provide an escalation clause for any variation in the controlled prices of molasses should Government decide about it any time during the price period recommended by us. By and large, most of the units consume Grade I molasses in a substantial proportion. For the purpose of this escalation, we would adopt the price of Grade I molasses and recommend that for every one rupee variation in the price per tonne of such molasses, the price of rectified spirit (100%) be varied by Rs. 4-43 per Kilo Litre.
- 4. The other recommendations made are of a general nature and are calculated to improve the efficiency of the alcohol industry.
- 5. The main recommendations were discussed at the meeting of the Central Molasses Board held on the 8th May, 1970.
- 6. After carefully examining the recommendations, Government have come to the conclusions that recommendations (x) to (xiii) relating to the price structure of alcohol be accepted except that:
  - (a) a single uniform price for rectified spirit may be fixed based on a weighted average price with other additions like transportation charges etc.;
  - (b) the prevailing molasses transport charges with a maximum ceiling of Rs. 150 per kilo litre remain in force upto 31-1-1971, and thereafter from 1-2-1971 the ceiling on this account be reduced to Rs. 100 per kilo litre, as recommended by the Commission.

With regard to recommendation (xiv), the Government accept the recommendation that the differential of the price of absolute alcohol at about 10% higher than the rectified spirit be maintained. Accordingly, the prices are being notified separately.

- 7. Government accept the recommendation (vii) in respect to release of 20% of the molasses production for free sale. The consequent amendment to the Molasses Control Order is being notified separately
- 8. Government accept recommendation (xv) of the Commission.

- 9. Government also generally accept the recommendations (i) to (iv), (vii), (viii) and (ix) and commend recommendations (iii) & (iv) and (viii) and (ix) to the State Governments for examining the feasibility of implementing the same.
- 10. As the Central Molasses Board is not in favour of permitting the sale of a percentage of alcohol, Government do not accept recommendations (v) referred to in para 3 above.

#### ORDER

ORDERED that copy of this Resolution be communicated to all concerned and that it be published in the Gazette of India Extraordinary.

(Sd.) M. RAMAKRISHNAYYA

Joint Secretary to the Gowt. of India.



### ETHYL ALCOHOL (PRICE CONTROL) ORDER 1971 GOVERNMENT OF INDIA

## MINISTRY OF PETROLEUM AND CHEMICALS AND MINES AND METALS (DEPARTMENT OF PETRO-LEUM AND CHEMICALS)

New Delhi, January 30, 1971.

- S.O. 577.—In exercise of the powers conferred by section 18G of the Industries (Development and Regulation) Act, 1951 (65 of 1951), and in supersession of the Ethyl Alochol (Price Control) Order, 1966, the Central Government hereby makes the following order namely:
- 1. Shart title and commencement.—(1) This Order may be called the Ethyl Alcohol (Price Control) Order, 1971.
  - (2) It shall come into force at once.
- 2. Maximum ex-distillery prices of Ethyl Alcohol. After the commencement of this Order, no person shall sell ex-distillery any of the grades of ethyl alcohol (industrial alcohol) specified in column (1) of the Table below at a price exceeding the price specified in the corresponding entry in column (2) thereof.

#### THE TABLE

(1)

(2)

- Absolute alcohol conforming to

   S. I. Standard No. 321-1952,
   naked, for equivalent volume at
   100 per cent V/V strength.
- Rectified spirit conforming to I. S. I. Standard No. 323-1959, naked, for equivalent volume at 100 per cent V/V strength.

Rupees two hundred and fifty and Paise fifty only (Rs. 250.50) per kilo litre.

Rupees two hundred and twenty seven and Paise seventy-five (Rs. 227.75) per kilo litre.

Note.—These prices include six rupees (Rs. 6.00) per kilo litre for putting up adequate storage facilities. This amount shall be separately funded and shall be utilised in accordance with the orders that may be issued for the regulation of such funds.

- 3. Additional charges in certain cases.—Notwithstanding anyhing contained in clause 2,—
  - (a) (i) A sum not exceeding one hundred and fifty rupees (Rs. 150 00) per kilo litre, based on the actual average cost incurred for the transport of molasses to the distillarly, and any octroi duty said or payable on the molasses, in relation to the previous year, may be charged up to the 31st January, 1971, in addition to the price specified in the said clause.
    - (ii) With effect from the 1st February, 1971, a sum not exceeding one hundred rupees (Rs. 100 00) per kilolitre, based on the actual average cost incurred for the transport of molasses to the distillery, and any octroi duty paid or payable on the molasses, in relation to the previous year, may be charged in addition to the price specified in the said clause;
  - (b) Where alcohol is supplied after denaturation with general or special denaturants in accordance with the specifications prescribed in the excise permit, the actual cost of such denaturants plus,—
    - (i) two (2) rupees per kilo litre, if denaturants are supplied by purchasers; and
    - (ii) five (5) rupees per kilo litre in all other cases; may be charged in addition to the price specified in that clause.
- 4. Authority to determine the additional charges.—(1) In case any doubt or dispute arises as regards the additional charges leviable under clause 3, it shall be decided by the Excise Commissioner of the State where the particular distillery is located.
- (2) Before taking the decision referred to in sub-clause (1), the Excise Commissioner shall give adequate opportunity to the parties concerned to present their case.
- (3) The Excise Commissioner shall, for the purpose of determining the additional energies, have power to call upon the seller and the buyer to furnish such documentary evidence as may be considered necessary by him for the purpose.
- 5. The additional charges to be rounded off.—In calculating the additional charges under this Order, any fraction of a Paisa in the total calculated price shall be rounded off to the nearest higher price.

(Sd/.) M. RAMAKRISHNAYYA.

Joint Secretary to the Government of India

## REPORT ON THE PRICE STRUCTURE OF INDUSTRIAL ALCOHOL

#### CHAPTER I

#### INTRODUCTORY

- 1.1. As a result of the steep fall in sugar production from 35 41 lakh tonnes in 1965-66 to 21 51 lakh tonnes in 1966-67 and 22 48 lakh tonnes on 1967-68, there was a general shortage of molasses, leading to the import of certain quantities of alcohol as also of molasses
- during these years. This had to be resorted to for sustaining the supplies of the principal raw material for the two main alcohol-based industries, namely, Synthetic Rubber and Polythelene. Meanwhile, the All India Distillers' Association (A. I. D. A.) and some individual distillers came up with a request for an upward revision of the selling price of alcohol on the ground that:
  - (i) the assumptions made by the Commission earlier in respect of the utilisation of distillery capacity no longer held good on account of the general shortage of molasses; and
  - (ii) the cost of production under certain heads taken into account by the Tariff Commission for determining the fair selling prices had gone up since its Report was presented in October 1965.
- 1.2. While it was recognised that there were likely to be seasonal and even regional variations in respect of capacity utilisation depending on the production of sugar, Government however felt that the costs had gone up to justify some increase in the selling prices of alcohol. Accordingly, Government decided to allow an increase of Rs. 26 per kilo litre on an ad hoc basis, with effect from 2nd April, 1968, and asked for a fresh examination of the case by the Tariff Gommission under Section 12(d) of the Tariff Commission Act of 1951. Appendix 1 contains the full text of the Ministry of Commerce letter No. 20(3)/Tar-68, dated 24th April 1968 on the subject.
  - 2.1. The scope of the inquiry as per the terms of reference
  - 2. Scope of the inquiry is as under:
  - "(i) Whether there is any case for further increase in the price of alcohol and if so, to what extent;

further ad hoc increase in the selling prices of alcohol in advance of a fuller investigation into the entire price structure of the indust ry

3.1. We called for the preliminary data on the number of units, installed capacity, production of alcohol, etc. in respect

of large scale sector of the industry from the Directorate General of Technical Development, Organic and Petro-Chemical Division (D. G. T. D.) Similar information

was also sought from the Development Commissioner, Small Scale Industries (D. C. S. S. I.) about distilleries in the small scale sector. A separate questionnaire was issued to the consumers. A Cost Proforma eliciting detailed data on the cost of production was sent to all the distilleries. This was followed up by the Commission's questionnaire relating to the various aspects of the fermentation alcohol industry to all the large scale distilleries. A simplified questionnaire was also sent to known small scale Since molasses is the main raw material for alcohol, a separate questionnaire was issued to sugar mills. The Indian Sug ar Mills Association (I.S.M.A.) was also requested to send a memorandum covering inter alia the availability and prices of molasses, and the A.I.D.A. was invited to outline the various problems faced by the industry and give its views thereon. The State Governments were requested to send their comments on the present position of the industry and provide information on levies, controls, etc. on alcohol and molasses in their respective States.

3.2. We also collected necessary background information on specific issues from certain other agencies such as the Indian Standards Institution (I.S.I.) about the standards formulated and those under formulation for alcohol and molasses; the Central Board of Customs and Excise regarding the current excise duties. views on excise controls, etc., the Collectors of Customs concerning c.i.f./f.o.b. prices of alcohol and molasses, the Chief Controller of Imports and Exports and the Director General of Commercial Intelligence and Statistics, Calcutta concerning imports and exports of molasses and alcohol and the Railway Board in respect of freight rates and availability of tank wagons for the alcohol industry. The Planning Commission was addressed for data relating to the alcohol production targets and achievements under the Plan. The Ministry of Petroleum and Chemicals, the Directorate Sugar and Vanaspati and the National Sugar Institute were requested to send information on various aspects of the industry with which they were concerned. We also addressed some of our Embassies/High Commissions in the U.K., U.S.A., Australia.

- (ii) Whether it is necessary to continue the present uniform price based on the weighted average on an all-India basis or there should be different prices for different distilleries or groups of distilleries;
- (iii) Whether it is feasible to lay down any formula as regards the price fixation based on utilisation of capacity;
- (iv) Whether there is any case for increase in the additional charges to be loaded on to the basic price of alcohol on account of the use of furnace oil and transport of molasses. In view of the shortage of molasses, the distilleries are prepared to lift this raw material from any distance provided reimbursement of the transport charges is allowed in full; and
  - (v) Any other matter which, in the opinon of the Commission, is necessary and useful for determining the fair price of alcohol having regard to the pecualiar circumstances of this industry."
- 2.2. Under the Ethyl Alcohol (Price Control) Order, 1966 (as amended upto 1-8-1969) which is now in force, prices have been specified in respect of the following two items;
  - (i) Absolute alcohol conforming to the I.S.I. Standard No. 321—1952, naked, for equivalent volume at 100 per cent V/V strength; and
  - (ii) Rectified spirit conforming to the I.S.I. Standard No. 323—1959, naked, for equivalent volume at 100 per cent V/V strength.

After the ad hoc increase announced by the Government on 2-4-1968 the prices of the above now stand at Rs. 257 and Rs. 237 per kilo litre respectively. Although potable spirit is outside the scope of our inquiry, we have collected some information in this regard also for purposes of comparison.

2.3. We were also requested by the Ministry of Petroleum and Chemicals (now the Ministry of Petroleum and Chemicals and Mines and Metals) in a letter dated 16th May 1968, to consider on an *interim* and ad hoc basis, the claim for a further increase in the selling prices of alcohol on the ground of unavoidable underutilisation of the distillery capacity. The representatives of the industry also met the Commission on 22nd May 1968 and pleaded for such an increase. However, after examining the matter in all its aspects, we did not think it necessary to recommend a

France, Italy and Mauritius for information relating to the structure of the alcohol industry there. A list of parties to whom the Commission's questionnaires and letters were issued and from whom replies/memoranda have been received is given in Appendix 2.

- 3.3. A Press Note was issued on the 21st of September 1968 announcing the Commission's inquiry into the prices of alcohol and inviting those interested to obtain copies of the relevant questionnaires from the Commission's office and offer their views.
- 3.4. For the purpose of cost investigation, after consulting the A.I.D.A., we selected 12 distilleries whose major product was industrial alcohol and 4 more producing mostly potable alcohol out of a total of 67 distilleries. Of these, six units had to be dropped subsequently and for the final tabulation, the effective number of the sample units for industrial alcohol taken into account was 10 covering five States. Details in this regard are given in the Chapter on Price Fixation and in Appendix 3.
- 3.5. The list of units visited by the Commission and its. Officers is given in Appendix 4.
- 3.6. We held a public inquiry into this industry on the 25th of March 1969 in Bombay. A list of the persons who attended the public inquiry is at Appendix 5.
- 3.7. We met the representatives of A.I.D.A. at their request to hear their views at various stages of our inquiry. We also held discussions with the State Governments of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh and Tamil Nadu.

#### CHAPTER II

#### **GROWTH AND PRESENT POSITION OF THE INDUSTRY**

As we pointed out in paragraph 4 of our 1965 Report on the subject upto 1962 the mainstay of the

4. Brief history of growth

the subject, upto 1962 the mainstay of the alcohol industry was its use as motor fuel in admixture with petrol. Since then, with the easing of the petrol supply position and the setting up of units for the manu-

facture of synthetic rubber and plastics and other alcohol-based industries, the focus shifted from motor fuel to these newly developed industries. The Indian Power Alcohol Act, 1948 and the Rules framed under it provided for licensing and the manufacture of power alcohol, regulation of its production, distribution and price fixation. The number of distilleries which was 19 in both 1931 and 1947 rose to 53 in 1961.

- 5.1. Comparative position of the industry at the time of last inquiry and this inquiry
- inquiry and this inquiry

  5.1.1. The present installed capacity of the industry is 315.309
- 5. Present position of the industry

kilo litres as compared to 275,898 kilo litres at the time of our last inquiry in 1965, showing an overall rise of about 14 per cent. Significant increases in capacity have taken place in the States of Uttar Pradesh, Andhra Pradesh, Gujarat and Tamil Nadu while the position in other

States has remained more or less stationary. The following table summarises the position.

TABLE 1

### Installed capacity at the time of last inquiry and present inquiry (In kilo litres)

Name of the	State					Installed as o		
							1-6-1965	1-1-1969
1. Uttar Pradesh .		- <u>-</u>		•	•		129,277	146,470
2. Maharashtra .		•					49,596	50,187
3. Andhra Pradesh		•	•	•		•	25,158	33,869

TABLE 1-Contd.

(In kilo litres) Installed capacity as on Name of the State 1-6-1965 1-1-1969 4. Mysore 17,184 17,184 5. Bihar 13.818 14,529 6. Puniab 13,720 13,674 7. Tamil Nadu 4.528 13,527 8. Madhya Pradesh 6.819 6,819 9. West Bengal 6,819 6,819 10. Gujarat 3,137 6,377 11. Kerala 3,627 3.639 12. Rajasthan . 2,215 2,215 TOTAL. 275,898 315,309

Note.—Besides, there are six units (according to D. C. S. S. I.) in the small scale sector exclusively engaged in the manufacture of potable alcohol.

Their aggregate installed capacity is reported to be about 2,800 kilo litres per annum.

- 5.1.2. In 1965, there were 60 units on the register of the D.G.T.D. manufacturing potable alcohol and rectified spirit. The D.G.T.D. has now informed us that there are 67 distilleries engaged in the production of alcohol. Among them, Mohan Meakin Breweries (Distillery), Kasauli (Himachal Pradesh) manufactures only whisky, while R.C.A. Khoday Distilleries, Bangalore (Mysore State) make in addition to rum, small quantities of gin, whisky and brandy as well. The remaining 65 distilleries produce potable spirit and/or industrial alcohol. There is Practically no production of absolute alcohol.
- 5.2. Capacity and Production.—The State-wise distribution of 65 distilleries making industrial alcohol along with their installed capacity as on 1-1-1969 and annual production during the period 1965 to 1968 reported by the D.G.T.D. is shown in Appendix 6, and a summary is given in the table below.

TABLE 2
State-wise capacity and production of Alcohol

(In kilo litres)

	_		Insta-		Produ	ction	
State	P	Number of units	capacity as on 1-1-1969	1965	1966	1967	1968
1. Uttar Pradesh		21	146,470	96,029	102,520	58,047	54,965
2. Maharashtra		8	50,187	35,268	40,094	34,483	42,846
3. Andhra Pradesh		9	33,869	18,899	16,776	5,922	14,499
4. Mysore .		3	17,184	9,343	9,775	3,374	4,878
5. Bihar	•	5	14,529	11,354	12,069	10,276	2,56
6. Tamii Nadu		2	13,527	3,686	5,C <b>94</b>	12,218	15,561
7. Punjab .		2	7,237	3,660	4,539	3,490	8,238
8. Madhya Pradesh		3	6,819	2,989	3,852	4,944	1,925
9. West Bengal		3	6,819	5,120	5,541	4,692	2,273
0. Haryana .		2	6,437		••	1,301	3,087
11. Gujarat .		2	6,377	1,706	1,895	3,002	3,098
12. Kerala		3	3,649	2,346	1,451	1,583	1,145
13. Rajasthan .	•	2	2,215	1,041	2,041	1,843	1,568
GRAND TOTAL	•	65	315,309	191,441	206,047	145,175	157,043

The distilleries continue to be concentrated in Uttar Pradesh, Maharashtra and Andhra Pradesh. These three States together account for more than one-half of the total number of distilleries in the country and for about 73 per cent of the total installed capacity.

6.1. Units producing only industrial alcohol and those producing industrial alcohol and potable spirit

6.1.1. According to the D.G.T.D., 39 distilleries are engaged in the production of only industrial alcohol (mostly rectified spirit),

6. Structure of the industry

while the remaining 26 manufacture both industrial alcohol and potable spirit. Two units manufacture only potable spirit. The number of distilleries in the former category increased from 33 in 1965 to 39 in 1969,

while the latter declined in number from 27 in 1965 to 26 in 1969. The distilleries located in Andhra Pradesh, Gujarat, Maharashtra, Madhya Pradesh and Tamil Nadu numbering 24 in all manufacture only industrial alcohol, while those in Punjab, Rajasthan and West Bengal produce both industrial alcohol and potable spirit. The following figures give the purposive picture of the capacity and production of these units:

TABLE 3

Capacity and production of units producing industrial alcohol

(In kilo litres)

				Capacity	Production						
	Nature of un number of	of units (wit r of units)		as on 1-1-1969	44	1966	1967	1968			
(a)	Those producing alcohol only (3			203,764	121,002	126,442	95,541	103,750			
(b)	Those producin alcohol and po (26).	table	spiri t	111,545	5 70,439	79,605	49,634	53,293			
(c)	Total (65)			315,309	191,441	206,047	145,175	157,043			
(d)	(a) as percentage	e of (c	·) .	64.6	63 · 2	61.4	65.	8 66-1			

<sup>6.1.2.</sup> Potable spirit.—Potable spirit is manufactured by processing rectified spirit. In 1965, there were 27 units which manufactured potable spirit. According to the D.G.T.D., there are now 28 distilleries engaged in the manufacture of different varieties of potable spirit. The production of potable spirit of various kinds in 1964 and 1968 was as under:

TABLE 4

Comparative production of potable spirits in 1964 and 1968

(In kilo litres) Production Type of Potable spirit 1964 1968 22,345 23,574 Country spirit 1,582 4,483 Rum 632 570 Gip 2,219 1,168 Whisky . Brandy . 1,039 1,698 Others 2,122 142

The State-wise distribution of these distilleries and the production of each variety of potable spirit according to D.G.T.D. are given below:

TABLE 5

State-wise distribution of distilleries and production of potable spirit in 1968 according to D.G.T.D.

(In kilo litres)

		1000	8533 (50%)	22		17.10	11103,
State	No. of distil- leries	Country Spirit	Rum	Gin	Whisky	Brandy	Others
1. Uttar Pradesh	14	9,488	442	227	1,242	247	118
2. Mysore .	2	2,112	2,862	34	126	706	••
3. Bihar .	1	2,474	101	23	44	41	••
4. Punjab .	2	4,613	38	10	7	6	
5. West Bengal	3	2,083	227	205	655	437	18
6. Haryana •	. 1	1,613		••		••	• •
7. Kerala .	2	1,036	6	61	15	247	6
8. Rajasthan	. 2	155	807	10	14	14	••
9. Himachal Pradesh	1	•	••	••	116	* * * *	
TOTAL	28	23,574	4,483	570	2,219	1,698	142

On the basis of information we have received from D.C.S.S.I., there are six more distilleries (i.e. four in Madhya Pradesh, one each in Uttar Pradesh and Jammu and Kashmir States) with an installed capacity of 2,800 kilo litres. However, other details are not fully available.

#### 6.2. Sector-wise position of the industry

6.2.1. There are five distilleries in the public sector *i.e.* two in Andhra Pradesh, and one each in Maharashtra, Madhya Pradesh and Rajasthan. There are also four co-operative distilleries one each in Andhra Pradesh, Uttar Pradesh, Gujarat and Maharashtra. The remaining 56 units are in the private sector. The relative position of these three sectors from the standpoint of capacity and production is summarised below:

TABLE 6
Sector-wise capacity and production

(In kilo litres)

	Capacity	Radh	Produc	tion	
Nature of sector (with number of units)	as on 1-1-1969	1965	1966	1967	1968
Public sector (5) .	30,446	21,668	21,515	15,462	16,346
Co-operative sector (4)	10,441	3,758	3,926	4,364	7,480
Private sector (56) .	274,422	166,015	180,606	125,349	133,217
TOTAL (65)	315,309	191,441	206,047	145,175	157,043

<sup>6.2.2.</sup> It can be seen from the above figures that the public sector accounts for about a tenth of the total installed capacity and production. The co-operative sector has a little more than three per cent of the capacity but its share of the production has increased from 1.9 per cent to 4.8 per cent during the period under comparison. An overwhelming majority of the units remain in the private sector which contributes nearly about 85 to 88 per cent of the overall production/capacity of the industry.

<sup>6.3.</sup> Attached and Independent units.—The industry is composed jargely of attached units numbering 40 (compared to 37 in 1965)

which account for more than two-thirds of the overall capacity and production. According to the D.G.T.D. there are 25 units (more than one-third of the total number) which are not attached to any sugar factories and provide nearly 32 per cent of the total installed capacity and about 34 per cent of total production in 1968 as may be seen below:

TABLE 7 Capacity and production of independent units (In kilo litres)

77.0 6 . 1/ / In-	Capacity	3	Production	during	
Nature of units (with number of units)	as on— 1-1-1969	1965	1966	1967	1968
(a) Independent units (25).	101,519	47,823	52,641	50,127	54,054
(b) All-India (65) .	315,309	191,441	206,047	145,175	157,043
(c) (a) as percentage of (b)	32.2	24.9	25.5	34.5	34.4

All the units in Haryana, Punjab and West Bengal are independent units. The number of independent units in Uttar Pradesh is seven which is the highest number for any State.

#### 7. Assessment of capacity

7.1. At the last inquiry, the Commission noticed a number of cases where the capacity as claimed by the unit was different from that reported by the D.G.T.D. Emphasizing the importance of a realistic assessment of the actual capacity, the Commission recommended (vide paragraph 6.8 of our last Report) a comprehensive survey in this connection

and the issue of additional licences where necessary. Subsequently, the industry was de-licensed in May 1966, and no re-assessment of capacity has since been made. Even in the present inquiry, we have come across a number of instances of differences capacity reported. The annual installed capacity reported to us by the D.G.T.D. at present is 315,309 kilo litres, while the

- A.I.D.A. cla ims a figure of 430,000 kilo litres. On the other hand, the figures of installed capacity totalling 350,306 kilo litres which were taken note of at the time of the Annual Conference of the State Excise Ministers held recently differ from those supplied to us both by the D.G.T.D. and A.I.D.A.
- 7.2. At the public inquiry it was stated that the distilleries generally tended to report increased capacities with a view to getting higher allocations of molasses and, as a safeguard, it was suggested that before any distillery's claim of a higher installed capacity was allowed, proof of achievement should be asked for. The representative of the D.G.T.D., however, expressed the view that the re-assessment of capacity was a complicated task. We are surprised at this nebulous approach to the problem particularly when the conditions of licensing and distillation are under the excise laws very stringent. The total fermentation capacity of wasn together with the capacity of distillation columns should be taken into consideration to arrive at the balanced capacity of the production of rectified spirit and this capacity should be regarded as the installed capacity irrespective of the licensed capacity. Since the Government of India have delicensed the industry the capacity for which the State Governments have issued licences should be adopted as the licensed capacity. Keeping the above in view we recommend that a survey of installed capacity should be undertaken at an early date with a view to determining the actual position of the extent of under-utilisation. In this Context it may be added that the experts of the National Sugar Institute, Kanpur are of the view that a proper assessment of the installed capacity should take -into account the capacity which could be normally achieved by working with actual alcohol content in the "must" and with increased vapour velocity obtainable through efficient steam generation.
  - 8.1. In connection with the present inquiry, we are required

down any formula as regards the price fixation based on utilisation of capacity. In this connection, we have studied the cost structure of 14 distilleries. While the fea-

sibility of laying down a formula regarding

to recommend whether it is feasible to lay

the price fixation based on utilisation of capacity could appropriately be examined in the Chapter on Price Fixation later on, we bring together below the data bearing on the overall position in this regard, the picture in the different States and the reasons given by the concerned interests for the relative low utilisation on the whole.

TABLE 8

State-wise utilisation of capacity
(Figures in brackets relate to capacity utilisation)

(In kilo Litres)

State	Installed Capacity		Production	n during	
State	as on 1-1-1969	1965	1966	1967	1968
1. Uttar Pradesh .	146,470	96,029	102,520	58,047	54,965
	(100)	(65·6)	(70·0)	(39·6)	(37·5)
2. Maharashtra .	50,187	35,268	40,094	34,483	42,846
	(100)	(70·3)	(79·9)	(68·7)	(85·3)
3. Andhra Pradesh	33,869	18,8 <b>99</b>	16,776	5,922	14,499
	(100)	(55·8)	(49·5)	(17·5)	(42·8)
4. Mysore .	17,184	9,343	9,775	3,374	4,878
	(100)	(54·4)	(56·9)	(19·6)	(28·4)
5. Bihar	14,529	11,354	12,069	10,276	2,960
	(100)	(78·0)	(83·1)	(70·7)	(20·4)
6. Tamil Nadu .	13,527*	3,686	5,094	12,218	15,561
	(100)	(27,2)	(37·7)	(90·3)	(115·0)
7. Punjab	7,237 <b>*</b>	3,660	4,939	3,490	8,238
	(10 <b>0</b> )	(50·6)	(68·2)	(48·2)	(113·8)
8. West Bengal .	6,8 <b>19</b>	5,120	5,541	4,692	2,273
	(100)	(75·1)	(81·3)	(68·8)	(33·3)
9. Madhya Pradesh	6,819	2,989	3,852	4,944	1,925
	(100)	(43·8)	(56·5)	(72·5)	(28·2)
10. Haryana	6,437 (100)	••	••	1,301 (20·2)	3,087 (47·9)
11. Gujarat	6,377	1,706	1,895	3,002	3,098
	(100)	(29·7)	(29·7)	(47·1)	(48·6)
12. Kerala	3,639	2,346	1,451	1,583	1,145
	(100)	(64.5)	(39.9)	(43.5)	(31.5)
13. Rajasthan .	2,215	1,041	2,041	1,843	1,568
	(100)	(47·0)	(92·0)	(83·2)	(70·8)
TOTAL .	315,309	191,441	206,047	145,175	157,043
	(100·0)	(60-7)	(65·3)	(46·0)	(49·8)

<sup>\*</sup>Figures of capacity appear to be too low. It may be added that A.I. D.A. has reported 17,729 and 15,229 kilo litres as installed capacity in Tamil. Nadu and Panjab States respectively.

<sup>3-2</sup> T. C. Bom/71

Thus, while the utilisation in 1968 is at a satisfactory level in the Punjab, Maharashtra, Rajasthan and Tamil Nadu, one-half to three-quarter of the capacity seems to have remained unutilised in other States.

- 8.2. Molasses is allotted directly to the distilleries by the Molasses Controllers of the State Governments. In the absence of the necessary details no firm conclusion can be drawn about the performance of units based on their size. Judging from the figures of the capacity utilisation Public Sector units appear to have had a better flow of molasses. It also seems that, by and large, bigger units in Maharashtra have fared better than their counterparts in other States.
- 8.3. The figures below give an idea of the utilisation of capacity by the distilleries according to certain capacity ranges in 1964 and 1968.

Table 9

Range of capacity utilisation by distilleries

		)arcan	tage	anges		7		Number	of units
		CICCI	lage I	auges	70			1964	1968
Below 30	•	•	A.	ħ/A		Ä,	•	10	18
3140	•		U.S.		20	g g		4	7
4150	•		-5	त्यमे	जय	d .		9	6
51—75		•	٠.					22	11
7690	•	•			•	•		10	3
Above 91 .	•	•		•		•	•	5	10
,					T	OTAL		60	 55*

<sup>\*</sup>Out of 65 units, 10 were not in production in 1968.

The number of units in production declined from 60 in 1964 to 55 in 1968. In 37 units, capacity utilisation was more than 50 per cent in 1964. This number declined to 24 in 1968. The number of units with capacity utilisation less than 40 per cent increased from 14 in 1964 to 25 in 1968.

8.4. The D.G.T.D., the A.I.D.A. and most of the distilleries have attributed the under-utilisation of capacity to the acute shortage of molasses. From the data received from State Governments, it is seen that in almost all the States the availability had fallen short of the actual requirement of molasses. In this connection the following is illustrative.

TABLE 10

Molasses made available to distilleries in 1967-68

(In thousand tonnes)

State			Total quantity of molasses required for enabling the distilleries to work full capacity	molasses made available to the
1. Uttar Pradesh		6	761	307
2. Maharashtra			251	192
3. Andhra Pradesh	ı .		145	79
4. Mysore* .		- 8	73	44
5. Bihar .		16	133	61
6. Tamil Nadu			96	79
7. Punjab .			30	30
8. West Bengal			58	22
9. Madhya Prades	h* .		45	8
10. Haryana .			36	19
11. Gujarat* .			41	32
12. Kerala .			13	6
13. Rajasthan .		•	27	8
	TOTAL		1,709	887

<sup>\*</sup>Figures relate to calendar year 1967.

- 8.5. Among other reasons advanced in this context are inadequacy of storage space both for molasses and alcohol and low offiake of alcohol due to restrictions in the issue of permits. On the arrangements for satisfactory storage of molasses we have received a number of suggestions from the producers including the proposal made in the public inquiry that sugar factories should be given adequate incentives in the form of better price for molasses for necessary tank installations. We deal with this aspect of this matter at greater length in the chapter on raw materials. Timely issue of permits by the State Governments for lifting the alcohol produced by distilleries is also important and we hape that difficulties will be sorted out by the distilleries and their Associations directly with the State Governments concerned.
- 8.6. The A.I.D.A. has made a number of suggestions in respect of purchase, distribution, transport and fuller utilisation of molasses vide Appendix 7. Some of these are stoppage of free sale of molasses, periodical verification of stocks and investigation of the reasons for supply of sub-standard molasses by sugar factories, pro-rata allocation of molasses according to capacity, allotment from nearest sugar factories so as to minimise transport expenditure and facility for litting molasses all the 24 hours and on all days of the season. The association has also mentioned certain areas in particular where complete co-operation of sugar factories is necessary to the distilleries regarding the placing of indent for tank wagons, keeping the molasses pumping equipment in order, safeguarding the quality of molasses, etc. We suggest that the Molasses Controllers in the State Governments should consider some of these points and take necessary steps with a view to increasing the availability of molasses for distillation.
- 9.1. The Alcohol Committee appointed by Government of India had in its Report (1956) given the opinion that the minimum capacity of a distillery of economic size would be one million gallons or 4500 Kilo litres (in round figures) per year. The Committee,

9. Economic size

however, did not lose sight of the fact that under special circumstances e.g. availability of joint resources of power and steam from adjoining sugar units, the production economies even with smaller capacities

might not be too disadvantageous.

9.2. On the basis of the information received by us from the D.G.T.D., there are 31 distilleries which can be categorised as economic units having a capacity of more than 4500 kilo-litres as compared to 30 at the time of our last inquiry in 1965.

Fifteen of these are located in Uttar Pradesh followed by seven in Maharashtra and three each in Mysore and Andhra Pradesh and one each in Madhya Pradesh, Tamil Nadu and Haryana States. The combined capacity and production of economic units during the last four years are shown below in comparison with the All-India totals.

TABLE 11
Capacity and production of economic units

(In kilo litres)

Nature of Units (with	Capacity as on 1-1-1969	Production during			
number of units)		1965	1966	1967	1968
(a) Economic Units (31)	239,961	140,382	155,218	100,692	115,489
(b) All India (65) .	315,309	191,441	206,047	145,175	157,043
(c) (a) as percentage of	76.1	73 · 3	75.3	69·4	73.5

While it is heartening to note that the economic units between themselves provide three-fourth of the total capacity and production of the industry, at the same time the existence of so many uneconomic units is a matter of some concern. We, therefore, feel that before additional licences are issued, the uneconomic units should be helped to increase their capacity to at least the level of 4,500 kilo litres.

9.3. In connection with the present inquiry, a large number of distilleries as well as the A.I.D.A. have expressed the view that owing to continuous increase in wages and other costs, the concept of economic unit requires substantial revision and that the economic size today is about 1.8 million gallons (8000 kilo litres in round figures) per year. Most of the distilleries have supported this view. But at the public inquiry, some of the consumers' representatives questioned the need for raising the level above one million gallors per annum. The general consensus appears to be that 4,500 kilolitres should no longer be considered as the level of the economic size and in this connection a technical reassessment of the issues involved seems to be called for. However, we would suggest that until such a reassessment is made, we may adopt as a working basis a size intermediate between the original figure of 4,500 kilo litres and 8,000 kilo litres which has been suggested by a number of interests i.e. an installed capacity of 6,000 kilo litres per annum in round figures.

- 10.1. In pursuance of the general policy of relaxation of control on the licensing of industries which do not require any foreign exchange for the import of capital equipment, technical
- know-how and raw materials, the alcohol industry was delicensed in May, 1966.
  According to the Notification announcing that decision new entrepreneurs are required to satisfy themselves that the requisite quantites of molasses will be available to sustain the distillery capacity before it is actually established.
- 10.2. Delicensing of the industry has raised some problems too. As stated earlier, in order to get higher allocations of molasses distilleries are probably claiming higher capacities than what they actually have installed, thus rendering the task of correctly assessing the installed capacity of the industry extremely difficult.
- appointed a Study Group to deal with the future of alcohol industry especially in the light of the growth of the petrochemical complex and the availability of naphtha and decide which industries can safely shift over to naphtha. In view of these developments, it may become necessary for Government to consider the necessary steps for forestalling possible imbalances and unhealthy competition in the future growth of the fermentation alcohol industry.
- 11.1 In the previous paragraphs we have given the structure of the industry which was previously registered under the Industries (Development and Regulation) Act. Complete data in respect of small scale units are not available.

  Though we had issued a brief questionnaire to some small scale units, none of them have
- replied. The Development Commissioner for Small Scale Industries (D. C. S. S. I.) has reported the existence of a few small distilleries in the States of Uttar Pradesh, Madhya Pradesh and Jammu and Kashmir. Their names are given in Appendix 9. It may, however, be added that only one of these units seems to be making industrial alcohol and the rest have been installed principally for the production of potable spirit.
- 11.2. Since the distinction between large and small scale units has now been removed it would be desirable to list them along with the rest of the units. In any case these units have also to take out a licence under the Excise Act, and Rules and work under regular supervision of the excise authorities. It should, therefore, not be difficult to collect authoritative data in respect of their installation and working.

#### CHAPTER III

#### **DEMAND**

- 12.1. Most of the units in U. S. A. and European countries like U.K., West Germany and France have switched over to ethylene produced from refinery gases, as this process has 12. Shift in demand been found to be much less expensive than the fermentation process. In paragraph 8 of our 1965 Report. we had dealt with the problem of possible utilisation of the petrochemical resources for the production of ethylene. We then felt that in view of certain limitations on the use of ethylene obtained by naphtha-cracking, the majority of the consuming industries using alcohol would continue to utilise alcohol produced fermentation processes. Further, we had observed that if any competition in the products which were manufactured with alcohol as raw material took place, the units using alcohol produced by fermentation processes would be at a disadvantage and might in the end have to close down. We, therefore, pointed out the need to ensure that no such unhealthy competition resulted in future
- 12.2. The problem of substitution of alcohol by synthetic ethylene has now assumed much greater significance than at the time of our previous inquiry. The sharp decline in sugar production during 1966-67 and 1967-68 seasons brought down the production of molasses steeply thus resulting in its acute shortage. This affected the production of alcohol considerably. In order to sustain the levels of production, major consumers of alcohol had been allowed to import alcohol which is very costly and said to be at almost three times the price of indigenous alcohol. Importing alcohol at such a high cost involves unjustifiable expenditure of foreign exchange.

when new units using ethylene from refinery gases were licenced.

- 12.3. On the issue of availability of naphtha the Sen Commission which inquired into the price structure of Sugar Industry in 1965, had stated that with the setting up of a large number of refineries for petroleum products there would be larger supplies of naphtha in a few years' time and naphtha would be used more and more as raw material in the manufacture of industrial alcohol.
- 12.4. In connection with the present inquiry we have also tried to ascertain the position in respect of the possible shift in demand from the consumers and producers of alcohol, D. G. T. D.

and Ministry of Petroleum and Chemicals. Most of the producers who have sent replies to our questionnaire have expressed the view that in the present condition it may not be more economical for the industrial consumers to switch over to petroleum based ethylene. Reasons cited by them are, (a) cost of transport is quite high, (b) such transport is hazardous, and, (c) the present available quantity is insufficient to meet the demand for it. The A.I.D.A. has informed us that naptha from which ethylene is obtained, will be in short supply and as such it may not be possible for industries using alcohol to switch over easily to ethylene. Many small consumers have informed us that it is not possible for them to substitute alcohol by synthetic ethylene. The Union Carbide, Calcutta has, however, stated that it has switched over to polyethylene completely since December 1967 and it has also installed naphtha cracking and gas purification facilities. It is presently making ethylene from naptha and the alcohol equivalent of this is being used by it for the manufacture of other products which cannot be switched on to naphtha. We are informed by the Government of Maharashtra that Polychem, Goregoan is changing over to synthetic ethylene for the manufacture of polystrene on a trial basis. The Government of Uttar Pradesh has indicated the possibility of Synthetics and Chemica's, Bareilly substituting butadiene for meeting a part of its requirements of alcohol. The biggest consumer of alcohol, namely, synthetics and Chemicals Ltd., has stated that supply of ethylene to its factory at Bareilly is not easily available and it has not been possible for it to make any substitution of aicohol by ethylene. It has, however, stated that it is in a position to use Petro-BD in its plant without making any basic change in the same. In this connection, we gather that the Company has made a contractual arrangement with National Organic Chemical Industries Limited, Bombay (N.O.C.I.L.) regarding supply of BD which is produced in their Thana plant and on present indications, it expects to get about 7,000 tonnes of BD by about 1970-71, starting with relatively small quantities during the next two years. (For the purpose of calculation one tonne BD has been taken as equivalent to approximately 3.6 kilo litres of alcohol). For that purpose of the present inquiry, the unit had suggested the its requirement of alcohol would be 83,610 kilo litres or about 30,000 tonnes of synthetic rubber and expansion of rubber capacity would be based on N.O.C.I.L. butadiene and such other quantities of butadiene as it migh be able to import.

12.5. The D.G.T.D. has said that there are many industries which could be established using ethylene as base. Development of the industries based on ethylene would

reduce the demand of alcohol for industrial purpose and particularly for making styrene which is required in the manufacture of rubber and polyethylene and in the plastic industries. The D.G.T.D. has also stated that with the development of industries producing ethylene and with the present production of alcohol, the supply of alcohol would be sufficient to meet the internal demand. It has gone further to say that it may also be possible to export alcohol to other countries, as the prices of alcohol in the international market are much higher than the price prevailing with in the country.

- 12.6. We also discussed at the public inquiry the question of development of petro-chemical feedstock vis-a-vis development of alcohol. The representatives of the A.I.D.A. then stated that the prices of naphtha have gone up by 70 to 80 per cent and its transport cost had also gone up, and, therefore, they do not visualise any major shift in demand for alcohol. The representative of the D.G.T.D. also expressed the view that it was not advisable to attempt a switchover unless there were compelling reasons for doing so. He added that unless the Haldia Refinery came up soon, the prospects of obtaining ethylene would not be bright.
- 12.7. The Ministry of Petroleum and Chemicals (Department of Chemicals) has furnished the following details of the capacity and production of two units which make ethylene from petrochemicals.

TABLE 12

Production of Ethylene in 1968

Name of the unit	Installed capacity for ethylene	Production (In tonnes)
Union Carbide India Ltd.	. 19,000 (by cracking 60,000 tonnes of naphtha)	3,020
N.O.C.I.L., Thana	. 60,000 (by cracking 2·25 lakh tonnes of naphta per annum)	12,247

Further, we are informed that Polychem Limited, which was producing about 3,500 tonnes of ethylene has recently stopped production and is now buying its ethylne requirements from

N.O.C.I.L. The Alkali and Chemical Corporation of India, Rishra has a production capacity of 12,000 tonnes of ethylene based on alcohol. It appears that its actual production is dependent on the demand for Polyethylene for which ethylene is the main raw material as well as on the availability of alcohol. We understand that by 1973-74, 590,000 tonnes of naphtna are likely to be consumed for the manufacture of ethylene by Bombay and Gujarat crackers, which may give an ethylene production of about 170,000 The Ministry of Petroleum and Chemicals feels that in the process of evolution of the new technology, processes based on expensive raw materials like alcohol are likely to be replaced by newer processes which produced the end-products at more competitive prices and a change over to a more advanced economic process is inevitable. The representative of the Ministry of Petroleum and Chemicals indicated the possibility of importing 12,000 tonnes of butadiene for a period of two or three years for Synthetics and Chemicals on the understanding that ultimately when the Gujarat scheme comes up there will be no further import of butadiene. The representative of the Synthetics and Chemicals told us that it would not be possible to transport ethylene from Koyali to Bombay and as such, he did not consider it to be a technically sound proposition. Some of the other consumers also stated at the public inqury that continued shortage of alcohol might also force the consuming industries to switch over to synthetic ethylene.

12.8. Regarding the demand and production of naphtha the following information would be interesting.

TABLE 13

Production and demand for naphtha by 1973

(In thousand tonnes)

		(III VIII UI	and connect	
	1968	1970	1973	
	(Actuals)	(Estimates)	(Estimates)	
(i) Total naphtha production .	. 937	1856	2496	
(ii) Naphtha requirement for fertilise and Petrochemicals	rs . 460	1184	2850	
(iii) Naphtha deficit or surplus.	(+)477	(+)672	()309	

It will be seen from the above figures that naphtha is now in surplus to the extent of 477 thousand tonnes but by 1973 a deficit of about 309 thousand tonnes is likely to arise owing to the commissioning of new fertilizer plants based on naphtha. In view of rise in demand for naphtha, from existing fertiliser plants which have already stepped up their production and from new ones in the process of establishment it looks as if some imports of naphtha may become necessary after 1971. Moreover the assumption that a unit which is using alcohol today can easily take to ethylene in future, does not seem to be sound particularly because of the high cost of technical and technological change especially in respect of plant and machinery and process know-how. It appears that the cost of transport of ethylene is quite high. explosive nature of the material makes such movement also hazardous. In view of what has been stated in the foregoing paragraphs, the apprehension, that the present demand for the fermentation alcohol may be replaced by naphtha based alcohol in the immediate future appear to us to be unwarranted.

12.9. It may also be noted in this context that the impact of the development of petro-chemical othylene is being examined in detail by the Alcohol Study Group. During our discussions with this Study Group some time in May, 1969 on this technical issue, it expressed the view that the switch over is inevitable and in fact, investments have already been made in this direction. We are sure that the Group which has to consider this question of possible substitution of fermentation alcohol by petroleum feed stocks like ethylene/butadlene with make some concrete suggestions in its report which is likely to be available soon. We hope its recommendations will enable the Government to formulate definite programmes for the development of alcohol based industries, the improvement of ethylene capacity and the steady and sound progress of related chemical industries.

13.1. In our earlier Report we had assessed the demand for alcohol during 1965 at 170,000 kilo litres.

After taking into account the estimated requirement of alcohol of the three largest consumers viz. Synthetics and Chemicals, Alkali & Chemical Corporation of India and Union Carbide at the levels estimated by them and envisaging

and Union Carbide at the levels estimated by them and envisaging a possible 10 per cent rise in the demand of other consumers we placed the demand at 218,000 kilo litres for 1966, 249,000 kilo litres for 1967 and 260,000 kilo litres for 1968. However, the production of alcohol received a serious setback resulting in decline

in the availability of acohol during 1967 and 1968 owing to the fall in sugar production and the consequent shortage of molasses in the two years for distillation purposes.

13.2. In connection with the present inquiry, we had requested the important consumers to put forward their own estimates of demand. The A.I.D.A. did not have any independent estimates but referred to the findings of the Petro Chemical Committee set up by the Government of India in 1960, which gave a figure for ethyl alcohol of 282,000 tonnes or 372,000 kilo litres for the year 1970-71 built up as follows:

TABLE 14

Petro Chemical Committee's estimate of demand for 1970-71

m/1901

(In i	cilo litres)
Usage	1970-71 (Qty. of Ethyl Alcohol)
1. Butadiene and styrene for synthetic rubber (S. B. R. Type)	92,284
2. Polyethylene	22,412
3. Styrene for Polystrone	19,775
4. N. Butanol and N-Butyraldehyde for Octanol	55,370
5. Acetic acid for cellulose acetate other acetates, acetic anhydride for other uses, Vinyl acetate, Chloracetic acid, Drugs, dyes textiles and other uses	75,14 <b>5</b>
<ol> <li>Chlorinated derivatives including chloral D.D.T., Chloroform, Ethyl-chloride, ethylene dichloride and P.V.C. Mainly D.D.T. 6,000 tons Mainly E.D.C. 2,400 tons Mainly P.V.C. 6,000 tons</li> </ol>	21,093
7. Potable spirits, drugs, liquors, ordinary denatured spirits	59,3 <b>25</b>
8. Other uses in chemicals and processing industries including acctone and others	26,367
Total .	371,771
	or
say	372,00

13.3. Regarding the pattern of industrial consumption of alcohol, the D.G.T.D. has stated that in 1968 about 270 million litres of alcohol were required to meet the internal demand of which 182 million litres for various organic chemical and other consuming industries like synthetic rubber, plastics, polyethylene, acetic acid (67.4 per cent of the total) about 68 million litres of alcohol by potable spirit makers (25.2 per cent) and the balance 20 million litres (7.4 per cent) by other miscellaneous purposes. The D.G.T.D. expects the demand for alcohol to go up to 300 million titres by the end of 1971 with the partial scraping of prohibition in some of the States in the Indian Union, apart from the rising demand from alcohol based industries. The corresponding molasses requirement would be of the order of 14 lakh tonnes on the basis that one tonne of molasses could produce 227 litres of alconol. Thus the estimated demand for alcohol according to the D.G.T.D. is as follows:

Year							Demand for Alcohol
rear							(In million litres)
1968	•	•	1214887	• •	•		270
1969	•	•					280
1970				•	•		290
1971		 	सत्यमेव जयते		•	•	300

However, it was clarified by the representative of the D.G.T.D. at the public inquiry that although his demand estimates are based on reports by State Governments, there are some consuming units which are not borne on his list. They include some pharmaceutical companies and number of other units in Tamil Nadu. In West Bengal also there are some units from which he does not get data. During our discussion with the Study Group on Alcohol industry, it came out that there are a number of small consumers like cottage industries and small scale manufacturers who account for a significant proportion of the total consumption of alcohol. It appears that the Central Government continues to receive a large number of letters from such consumers complaining of short supply of alcohol. In view of these factors, some corresponding adjustment needs to be made in the estimates furnished by D.G. T.D. for the corresponding years.

- 13.4. We have also collected some information about Statewise demand for industrial alcohol from the various State Governments. One State Government has not sent us any estimates but for the remaining States the aggregate demand for 1968, worked out to 387,000 kilo litres rising to 403,000 kilo litres in 1969 to 418,000 kilo litres in 1970 and 434,000 kilo litres in 1971. These estimates are much higher than the estimates made by the D.G.T.D. for the corresponding years. While some of the deficit States might have over-estimated their demand to get higher allocation of alcohol and molasses it is also possible that surplus States might have over-estimated their own requirements presumably with a view to reducing the ostensible surplus. We may also add that according to the figures presented to the recent Excise Ministers' Conference held in New Delhi in May this year the overall demand for alcohol during the sugar season 1968-69 would work out to about 318,000 kilo litres as per details given in column 7 of the Appendix 9. It would, however, appear that four States namely Andhra Pradesh, Assam, Mysore and Kerala sought to revise the earlier estimates given therein. The finally adjusted figures are not vet available.
- 13.5. We discussed the question of demand for alcohol at the public inquiry not only with the producers concerned and Government Departments but also with representatives of consumers. Some of the major consumers present had given us the following estimates of their future annual requirements.

	1				(In kilo litres)
Synthetics and Chemicals		•	•	•	85,000
Alkali and Chemical Corporation .					32,000
Union Carbide					21,000

We were, however, informed by the Union Carbide that although its demand was for 21,000 kilo litres it was compelled to cut down its production owing to reduced availability of alcohol.

13.6. No targets for alcohol have been fixed by the Planning Commission so far for the Fourth Plan and definite targets may perhaps not be set because of the uncertainty about sugar production which in turn is dependent on the availability of sugarcane. For these reasons, the Planning Commission has informed us that it has not estimated the future production of alcohol. However, in accordance with the consensus reached at the public inquiry and our subsequent discussions with the Study Group on Alcohol, we have adopted the following figures.

TABLE 15

Estimate of demand for alcohol for industrial uses and for potable purposes

(In thousand kilo Litres)

	Year					Alcohol for industrial uses	For potable alcohol	Total*
1969					•	191	69	260
1970	•	•		Fire	53	200	70	270
1971	•	•	4			208	72	280

<sup>\*(</sup>Excluding for "other uses" given by the D.G.T.D.)

Making a notional adjustment to the extent of 30,000 kilo litres in respect of consumers not borne in the list of D.G.T.D. together with the needs of other small consumers, we estimate the overall demand for industrial alcohol for 1969 at 310,000 kilo litres, for 1970 at 320,000 kilo litres and for 1971 at 330,000 kilo litres. These estimates are somewhat nearer to the figures of 372,000 kilo litres for 1970-71 put forward by the Petro-Chemical Committee in 1960, but they are very much below the aggregate of State-wise demand estimates received by us from various State Governments viz. 434,000 kilo litres.

13.7. The present annual installed capacity of the industry as recorded by D.G.T.D. is 315,309 kilo litres but the total production of alcohol achieved in 1968 was hardly 154,717 kilo litres according to D.G.T.D. Moreover even the net availability of alcohol (production+imports-exports) was about 188,000 kilo litres only in 1968. In fact, we exported alcohol in 1965-66, whereas we were compelled to import the same in 1967 and 1968 involving substantial foreign exchange expenditure. On the basis of the production figures received by us for the first eight months of 1969 (viz. 152,000 kilo litres) it may be expected that the production during 1969 will greatly improve compared to earlier years.

13.8. The A. I. D. A. has estimated the likely production of alcohol as follows:

Year									,		(In kilo litres)
1968-69	•			•		•	•	•	•		172,000
1969-70		•		•	•		٠		•	•	192,000
1970-71			•	•						٠	223,000

The A.I.D.A. has also suggested the following steps to improve the availability of molasses and alcohol which are inter-connected.

- (i) All khandsari molasses should be controlled in the same way as molasses of sugar factories is controlled;
- (ii) Release of the molasses produced by sugar factories for free sale should either be completely stopped or should be allowed only in exceptional circumstances. Attempts snould be made to link specific distilleries with specific sugar factories in the matter of allocations of molasses so that the programme of lifting of molasses is so arranged that the deterioration and destruction of molasses stored with sugar factories is reduced to the minimum and also transport costs on molasses are rationalised; and
- (iii) Sugar factories should be induced to construct steel tanks for storage of molasses.

In the Association's view if effective steps are taken to improve the molasses supply position, it would be possible to increase the production of alcohol in order to narrow down the gap between the demand and supply. The National Sugar Institute, Kanpur has also suggested that proper notice should be taken for deliberate spoiling of molasses.

13.9. It is now more than clear that there are periodic fluctuations in the production of sugar cane and consequently its incidence on by-products. During the last five years the situation was as follows:—

TABLE 16
Trend in the production of sugar cane molasses and alcohol

Year	produced	for sugar	produced (Thousand	Molasses used for alcohol* (Thousand tonnes)	produced* (Thousand	
1964-65	119598	33370	1162	796	181	27.90
1965-66	119642	36642	1530	805	183	30.63
1 <b>9</b> 66-67	92826	21595	839	711	161	23 · 26
1967-68	96884	22403	867	656	149	23 · 12
1968-69*	117572	37699	1439	911	207	32.07

<sup>\*</sup>estimates

The production in 1965-66 was at the optimum level. It fell drastically during the next two years, then improved in 1968-69 almost touching the levels reached in 1965-66 and 1964-65. It is expected that the performance in the next year will not be worse. However, if the right policies in respect of cane production are put into effect, a degree of stability may be achieved in the production of alcohol.

- 13.10. We have also given independent thought to the need for a central organisation for supply of molasses and have discussed certain possibilities in the Chapter on Raw Materials.
- 13.11. Moreover, there seems to be no proper co-ordinated plan at present based on the overall demand for alcohol and its total availability. It is essential to take into account the available capacity of alcohol industry before any new alcohol based industries are allowed to be set up. Otherwise, we would be creating long term investments which later on might not be utilised so well as originally thought of. In this context, we are glad to be informed by the D.G.T.D. that the Government have not allowed any new alcohol based industries to come up under the Industries (Development and Regulation) Act nor have permitted expansion in the existing units. The case for a long range plan for the development of the industry including inter alia an overall estimate of demand for alcohol covering not only the possible substitution for industrial consumption but also the requirements for potable purposes is more pressing than ever today. After this is done, the question of further expansion of the existing units or setting up of new units can be taken up.

#### CHAPTER IV

### IMPORTS AND EXPORTS

- 14. Under Appendix 28 of the Import Frade Control Policy for the year April 1969-March 1970 as shown in List II thereof applications for 14. Import control policy Actual users are considered on a restricted basis for import of butyl alcohol. Government have been providing imports of alconol on an ad hoc basis to meet the requirements of certain alcoholbased industries such as polyethylene and synthetic rubber.
- 15.1 Imports of alcohol were negligible except during the last two years when the position has changed. As stated in the previous para-15. Imports graph, Government had to arrange for imports of alcohol to feed certain important alcohol-based industries consequent on the fall in the production of sugar and, therefore, of molasses and alcohol. Prior to 1968 imports were mainly of denatured alcohol. The country-wise details of imports are given in Appendix 10. The imports came from Brazil, Hungary, U.K., and the Federal Republic of Germany.
- 15.2. The c.i.f. prices of ethyl alcohol, minimum 95 per cent. imported from Brazil during 1967 and 1968, varied between Rs. 724 45 to Rs. 764 10 per kilo litre, while those of industrial ethyl alcohol 95/96° guylussac @15°C imported from the U.S.A. Rs. 773.08 to Rs. 808 · 26. between of alcohol were exempted from customs duty as per Customs Notification No. 89/68 dated 5-6-1968. Some of the consumers who were allotted imported alcohol complained that the price of imported alcohol was three times the controlled price of alcohol.
- 16.1. Referring to the exports made during 1961 to 1964, Commission had observed the 1965 that these were made in a period when the distilleries were temporarily 16. Exports overstocked and that subsequently the domestic demand was likely to use all the alcohol produced in the country. During 1965 and 1966 when there was a larger production of

alcohol, some exports did take place. However, later on owing to the fall in production the exports shrunk. Appendix 10 also shows the country-wise exports of alcohol during the period 1965 to 1968. Upto 1967, U.K., and U.S.A. were the main destinations for our exports.

## 16.2. Export Promotion :

- 16.2.1. We are informed by the D.G.T.D. that there is no scheme under consideration to encourage exports of alcohol. The Ministry of Petroleum and Chemicals have also stated that no special assistance like concessional rates of export duty is given to the distillery industry. In the opinion of the A. I. D. A. there is a large foreign market for Indian alcohol. According to the Association, although Government have banned the export of alcohol, some sugar factories are exporting molasses instead, thus not only beating the ban but also aggravating the internal shortage of alcohol. We have to concede that there is some force in the point made by A.I.D.A. and would, therefore, suggest that such export of molasses at the expense of the alcohol industry should be discouraged.
- 16.2.2. Some of the distilleries that have replied to our questionnaire have suggested export subsidies, liberalisation of Central Excise Rules and delegation of more powers to the Excise Officers of the States for stepping up exports. One distillery is of the opinion that unless there is a steady flow of alcohol for exports, it would be difficult to build up a steady market. According to this unit, the Railways should give at least 50 per cent concession in the Railway freight to encourage exports and that the exporters should be permitted to import certain goods by using a part of the foreign exchange earned by them. Another distillery in Maharashtra has also made certain suggestions in this regard such as entering into long term contracts; guaranteeing the availability of a given quality of molasses year after year at fairly constant prices; providing for the loading and unloading facilities at the port; avoiding delays caused by the lengthy formalities presently required to be complied with for getting clearance from the State Prohibition and Excise Department; and promoting the production of large quantities of neutral spirit which will fetch higher prices compared to industrial alochol. In view of the tight foreign exchange position, the need for building up a suitable export market can hardly be over emphasised. When the supply position of alcohol improves, the industry may get in touch with the government of India and seek the facilities needed for building up an export market. We hope

the government will bear in mind the various suggestions made b the industry for increasing exports of alcohol, while formulating export promotion measures if and when there is surplus of indigenous alcohol.

16.2.3. Considering that the present practice of the Indian producers and the trade is to record alcohol output by volume in kilo litres, and the controlled prices also are fixed in these terms, it would be helpful for purposes of comparison with imports (or exports), if these are also shown by volume in kilo litres in the Monthly statistics of Foreign Trade of India, published by the Director General of Commercial Intelligence and Statistics, who now shows these figures only by weight (in kgs).



#### CHAPTER V

## CONTROLS, DISTRIBUTION AND TRANSPORT

17.1. Operation of controls.—State Excise Departments control the production and distribution of alcohol. We are informed by the Ministry of Petroleum and Chemicals that generally the State Governments are not in favour of centralised control on production and distribution of alcohol presumably in view of the fact that they realise substantial revenues from excise duties.

## 17.2. Rationalisation of Controls

- 17.2.1. In our last Report on this industry in 1965, we had referred to (vide paragraphs 11.5 to 11.9) the general dissatisfaction then prevailing over the matter of implementation of the controls on the alcohol industry. In connection with the present inquiry also, criticism has been voiced on the ground that the existing controls originally framed primarily with a view to regulating the production and sale of potable alcohol, are proving too cumbersome, time-consuming and dilatory in respect of industrial uses. Most of the producers have pleaded for liberalisation of excise rules and procedures relating to sending samples, inter-state transactions, multiplicity of work relating to maintenance of records so as to ensure the smoother working of the distilleries. A number of units also emphasised the adverse effect on production, of chronic shortage of storage space even though there was good demand for alcohol from consumers. According to the A.I.D.A., the distillery industry is extremely sore that for no fault of its own it is being penalised by excise authorities by the levy of excess wastage duty on rectified spirit. It has strongly represented that some of the excise formalities are extremely harsh. We are informed for example, that the Excise Inspectors do not forward the excise passes promptly to their office bearers in the importing States. The industry has urged that controls which hamper production are no longer necessary and should be removed.
- 17.2.2. Some consumers have also expressed the view that excise duty (Central or State) once levied and paid at the point of production should free the product from all further restrictions of movement. A few have also suggested that once the user is issued a valid licence to use the alcohol and the allocation is made

by the proper authority, there should be no interference with the movement. The need to simplify the procedures and levies was brought to the notice of State Governments but they generally thought that the rules were necessary for preventing leakages. One surplus State has added, however, that if procedural difficulties were brought to their notice, necessary remedial action would be taken. From the evidence placed before us, by the producers and consumers alike, it would seem that considerable simplification of procedures and formalities is called for and that every facility should be given for the easy movement of alcohol outside the State boundaries. We would, therefore, recommend that the controls on alcohol especially in respect of inter-State movement, should be rationalised with a view to mitigating the hardships felt by producers and consumers. It is noticed that this particular aspect of the problem does not strictly fall within the purview of the study Group on Alcohol which is now examining the technical aspects of production and distribution. In the circumstances. if necessary, a Committee consisting of the representatives of State and Central Excise authorities, consumers and producers may be constituted at an early date to examine the question in depth and evolve suitable remedial measures.

18.1. The distribution of alcohol is controlled by the issue of licences and permits by the Excise Departments in the States.

Regarding allotments to consumers within a State, the State Government makes the allocations. On 7th September 1967, certain instructions were issued by the Ministry of Petroleum and Chemicals laying down priorities for the utilisation of alcohol, for the guidance of the Molasses Controllers of the State Governments. These are:—

- (i) The manufacture of drugs, pharmaceuticals, insecticides synthetic rubber, acetaldehyde, acetic acid, thermoplastics (which includes polyethylene), pine oil and shellac;
- (ii) Science laboratories, hospitals and dispensaries;
- (iii) Potable purposes; and
- (iv) Severely restricted quantities for paints and varnishes. (A number of other chemicals are available to cater to their demand).
- 18.2. In respect of inter-state distribution the policy is decided by the Government of India in consultation with the States at

the annual Excise Ministers' Conference on the basis of the estimated production of alcohol as well as industrial and non-industrial requirements in various States. It has been alleged, however, that some of the State Governments do not strictly adhere to these allocations even though these followed the decisions taken at the Excise Ministers' Conference held each year for the purpose. This puts the consuming industries especially those located in deficit States, into difficulties due to disproportionate reduction in their supplies of alcohol, as well as uncertainties of delivery. We have, in fact, received a number of complaints from such congeneral question of distribution and quotas was The discussed fully at the public inquiry and on the basis of the general trend of opinion in this regard we have come to the conclusion that some positive steps should be taken to streamline the present system of controlled distribution for ensuring regular supplies to consumers.

- 18.3. The Excise Ministers' Conference held in May 1969, in New Delhi considered but rejected the possibility of evolving a central statutory mechanism under the Industries (Development and Regulation) Act or by separate self-contained Central Legislation, for supervising the proper distribution of alcohol.
- 18.4. Regarding the issue of allotments to various consumers we think that atleast for the established units, there should be a basic quota from pre-determined sources as near to them as practicable. If the production of alcohol improves they can be given additional quantities. In other words, there would be a basic quota plus a variable quota for each unit. Since all the important consumers are on record, straightaway some 50 per cent or so of their normal requirements could be allotted to them from specific distilleries as near them as possible as their basic quotas, the balance of their requirements being met to the extent of over-all availability in any particular year. Such consumers would thus know the basic minimum quantity they could expect on a long term basis and from whom. This would enable them to phase the lifting of alcohol and to plan their production. Further details could be worked out by the officials of the State Governments in consultation with the Central Government and placed before the next Annual Excise Ministers' Conference for consideration and decision,

#### 18.5. Inter-State movement

18.5.1. In Paragraph 11.8 of our 1965 Report, we had observed that "a number of units reported that they had to stop the production for want of storage space, even though there was demand for alcohol from the neighbouring States, owing to the

- complicated procedure of obtaining licences and permits. We consider that every facility should be given for the easy movement of alcohol outside the State boundaries and that the large purchasers of industrial alcohol should co-ordinate their lifting programme with the expected production in the different units from which they received their supplies." Further, in paragraph 14.2 of the Report we also drew attention to the congestion caused at by lack of co-ordination, apart from procedural delays in this regard.
- 18.5.2. In connection with the present inquiry, we had requested the State Governments to intimate the progress made by them in implementing the above recommendations. An important alconol producing States has claimed that all facilities are given for easy movement of Alcohol outside the State and that there is no problem in that State. Another major alcohol producing State has stated that facilities are normally given for easy movement except because of scarcity during the last season when no exports of alcohol of any magnitude were allowed. Some of the deficit States have stated that the problem in their case is one of availability and supply of alcohol from the surplus States and the question of quick issue of permits or licences for off take does not arise. The A. I. D. A. has, however, contended that unless inter-State movement is fairly freely permitted, the distilleries of Uttar Pradesh are likely to face considerable difficulty in the disposal of alcohol produced by them. The Association has pointed out, for instance, that the Excise Commissioner in that state has reserved the available supplies for the "biggest" consumer of alcohol namely, Synthetics and Chemicals. In the same context, the A. I. D. A. has also referred to the position in Maharashtra where there is dual control by the Industries Commissioner and the Excise Department and suggested that in the interest of smooth sales this dual control should make way for a single authority.
- 18.5.3. On the question of inter-State Movement of alcohol, we feel sure that the State Governments would be willing to view the problem from the national angle with a view to ensuring equitable distribution of alcohol to all imporant consumers wherever located and to the extent necessary they would be ready to reduce the procedural formalities even for consumers outside their States so that the even flow of supply of alcohol could be maintained to the industrial consumers of alcohol.
- 18.6. Plea of partial de-control.—Ever since the Government announced the system of partial decontrol of sugar under which, a part of the total production is sold at controlled prices and the balance in the open market, there has been a demand from the

sugar producers to meet out similar treatment to molasses particularly as they consider the present controlled price of molasses uneconomic. In the present context we would like to refer to the proposal made by the distilleries that part of the alcohol produced by them should also be freed from price control. We had the advantage of a discussion with the Study Group on alcohol industry appointed by the Government of India on this subject recently and it seems to us that it would not be a bad idea if as an incentive to distilleries, 15 or 20 per cent of their production of alcohol is left free of price control and the remaining 85 or 80 per cent made subject to allocations by Government. it may be added that distilleries which produce alcohol from a raw material other than sugar factory molasses should be able to sell that alcohol freely. We consider that the Government should give serious consideration to these suggestions.

- 19.1. In our last Report (1965), we had recommended that the Railways should earmark tank wagons Transport 19. made of aluminium or stainless steel for problems the transport of alcohol so as to prevent contamination of alcohol during transit. In connection with our present inquiry, the A. I. D. A. has informed us that sufficient tank wagons made of mild steel are still not available for the transport of molasses, with the result that the factories are forced to transport a large quantity of molasses by tank lorries. This being more expensive tends to raise the cost of production of alcohol. One of the distilleries has stated that the Railways are supplying petrol tank wagons and it is difficult to clean them.
- 19.2. Some of the distilleries have also complained that sometimes the Railways allot too many wagons to them at a time when these cannot be utilised. This results in higher demurrage charges. The Railway Board, however, has mentioned that in fact the industry has been utilising ordinary mild steel tank wagons for the movement of alcohol without any hesitation. We are informed that the Railways will be able to meet all the demand for tank wagons provided these are made of ordinary mild steel both for alcohol and molasses. According to the Railway Board, the Railway Ministry has not been specifically approached for the provision of stainless steel or aluminium tank wagons either by the industry or by anybody else. Again, the parties requiring special types of wagons (such as stainless steel and pressure vessels) are to provide their own tank barrels and the Railways are prepared to provide only the underframe for these tanks and that no such proposal has been received from the users of alcohol. In any case the Railways do not have any plans for the manufacture of stainless steel or aluminium wagons in the Fourth Plan. The Railway

Board has also stated that ordinarily there is no special priority amongst the commodities requiring transport in tank wagons. However, the movement of molasses or power alcohol, when intended for transport to ports, is arranged under priority 'D' of the Preferential Traffic Schedule, provided that such movement is sponsored by the Directorate of Export Promotion, on the basis of a quarterly programme and duly approved by the Railway Board.

19.3. On the question of transport of alcohol, we would recommend that in order to obviate heavy demurrage charges which needlessly inflate the cost of alcohol, the Railway Board should consider how best they can regulate the supply of wagons in good time ensuring on the one hand that the distillery industry is not faced with frequent shortages and on the other, too many wagons are not allotted when they are not needed or when they cannot be filled simultaneously.

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#### CHAPTER VI

## STANDARDS AND QUALITY

20. The Indian Standards Institution (I.S.I.) has informed us that almost all grades and types of alcohol are already covered by Indian Standards. Some of the manufacturers have been granted operating licences under Certification Marks Act and the position in respect of each Standard is as follows:—

Name of the Standard		of manu- who are operating
Absolute Alcohol-		
I.S. 321-1964		9
Rectified Spirit—		
I. S. 323-1959	•	4
Ordinary Denatured Spirit		
I. S. 324-1959	•	14
	·	

We understand that many producers have responded satisfactorily to the I. S. I. specifications. It is hoped that all the remaining manufacturers will also take early steps to obtain operating licences in the interest of maintenance of the standard and quality. The other agencies of the Government also should see that the standards are effectively implemented by the Industry.

21.1. The Commission in its last Report (1965) found the quality of indigenous alcohol to be satisfactory though greater attention needed to be given to standardisation, and particularly to the arrangements for packing and cleanliness of containers. In connection with the present inquiry, the A. I. D. A. has claimed that the quality of alcohol manufactured in the country continues to be satisfactory and that it compares favourably with international standards. the I.S.I. has not received any specific complaints regarding the quality of indigenous.

alcohol nor about the quality of rectified spirit, Grade I, supplied by its licensees with the Certification Mark conforming to I.S. 323-1959. The D. G. T. D. is also of the opinion that the quality of alcohol manufactured in the country is satisfactory. Most distilleries have stated that no complaints have been received by them regarding the quality of their product and that their products conform to the specifications laid down by the I.S. I.

- 21.2. As regards packing and cleanliness of the containers distilleries have claimed that they are supplying the products in clean containers. One distillery apparently "cleans and presure tests" the containers before packing. Another has arrangements for steam washing of drums and putting the containers to air tests to detect leakages, yet another has improved the techniques of fermentation and distillation, so that it could remove fuel oil from the product regularly and also isolate aldehydes. In addition it seems to possess facilities for satisfactory cooling during fermentation to suppress the production of by-products which would otherwise adversely affect the quality of the rectified spirit.
- 21.3. In spite of all these steps reportedly taken to improve or atleast maintain the quality of the supplies, we have still received some complaints from the consumers relating to the presence of foreign impurities, sub-standard quality and non-adherence to permissibility of sulphur and chloride content. A cosmetics manufacturer, for example, has stated that the alcohol supplied to him by and large does not conform to the standards of perfumery Grade alcohol, and that the alcohol though meeting the I.S. specification for absolute alcohol, does not pass the offset test which is most important from its point of view. Another consumer has observed that there is a tendency on the part of distilleries not to conform strictly to the Indian Standards. Further, the strength of alcohol is stated to be lower than the standard required, although the price charged is for alcohol of standard specification. A paint and varnish manufacturer who has no complaint about quality, cautions nevertheless, that there is every chance of middlemen/wholesalers/dealers diluting the quality and suggests as remedy that they should be compelled to effect supplies in drums sealed by distilleries. Since alcohol is used mainly by industrial consumers, any deterioration in quality affects these users. Therefore, it is necessary for the manufacturers to note these complmints and take quick and effective remedial action.
- 21.4. In connection with the present inquiry, we had requested the distilleries to furnish details of the quality controlmethods adopted by them. Some distilleries have reported that they get

their products tested by the Chemical Examiner of the State Governments or other laboratories. A few have a regular procedure for periodical testing in their laboratory. One or two other units have said that their trained technical personnel keep round-the-clock quality check on the raw materials and finished products so as to ensure that their products conform to the specifications laid down by the different authorities. It would appear that most of the distilleries which have responded to our questionnaire possess facilities for routine testing of their products. Some of them have claimed to have built up fully equipped laboratories for research, testing and analytical work with qualified staff.



#### CHAPTER VII

# TECHNOLOGY, EFFICIENCY, RESEARCH AND DEVELOPMENT

## 22.1. Technology

- 22.1.1. In connection with the present inquiry, we had requested the D.G.T.D. and manufacturers to indicate the im-
- provements made in the process of manufacture since our last Report. While the D. G. T. D. has stated that no noteworthy improvement has been made by the indus-

try in this regard, some of the manufacturers (e.g. in Mysore and Uttar Pradesh) have stated that through such technical devices as Thermo-Compressors, Para Flow Exchangers, Economisers, Heat Exchangers which they have installed they hope to save the consumption of steam and recover waste heat from spent wash. Some of them also have installed yeast propagating units to supply quality yeast for better fermentation efficiency and fuel oil draw system for better separation of fuel oil.

- 22.1.2. The Director, National Sugar Institute whom we had consulted in the matter of ensuring efficiency and improvement in the working conditions has made the following useful suggestions.
  - (i) Efficient generation of steam so as to achieve at least the working pressure at 150 lbs. per sq. inch.
  - (ii) Effecting overall fuel economy by vapour re-compression and heat exchanger.
  - (iii) Improvement in plant operation by modernisation, automation and instrumentation.
  - (iv) Preventing deterioration in the quality of molasses by proper storage and transport arrangement.
  - (v) improving fermentation techniques so as to increase alcohol content in the "must" to 8 per cent or above by—
    - (a) Ensuring proper selection of yeast and cooling of vats.

- (b) following asceptic method of propagation and recycling of yeasts
- (c) developing continuous fermentation and,
- (d) introducing preclarification of molasses.
- (vi) Preventing scale formation and exercising effective control over the same.
- (vii) Preventing losses of alcohol in carbon dioxide gas, sludge and spent-wash as well as in leakages in the plant and steam lines by proper lagging.
- (viii) Effecting proper chemical control by alcohol and sugar balance.
  - (ix) Proper tapping of fuel oil.
  - (x) Recovery of yeast from sludge for use as cattle-fodder.
- 22. 1.3. In order to effect technical improvements on these lines it would be necessary for the alcohol industry to engage trained and technically qualified persons, introduce a consultancy-cum-extension service and establish an Alcohol Technologists Association. This Association can conceivably play an important role in this direction by organising seminars/technical discussions between the distilleries so as to facilitate exchange of knowledge and experience in respect of technological improvements and generate better cost consciousness among the the distilleries. This would in the long run be in the interest of not only of users of alcohol but also of the distillety industry it self.

## 22.2. Operational Efficiency

22,2.1. In paragraph 5.2 of our last Report, we had discussed how the overall efficiency of operation of an alcohol distillery is measured in terms of the fermentation and distillation efficiencies. The comparative picture as at the time of last and the present inquiries is as under:

TABLE 17
Variation in operational efficiency

Nature of efficiency							Last inquiry %	Present inquiry
Fermentation efficiency				•			71 to 96	70 to 92
Distillation efficiency							95 to 98	69 to 99
Overall efficiency .							72 to 88	58 to 89
Yield of alcohol per tonne	of r	nolas	ses (k	.ls.)	٠	•	0.193 to 0.256	0.172 to 0.269.

22.2.2. There has thus been an apparent decline, upon the Whole in the efficiency co-efficients since our last inquiry. The possible reasons for the deterioration in efficiency, however, were discussed in the public inquiry. Most of the distilleries have attributed the set-back to the low quality of molasses received by them. The representatives of I. S. M. A. on the other hand made the potin that efficiency depended on the proficiency of the technicians employed, working of the plant put up etc. and that molasses alone could not be blamed for lower efficiency. The I. S. M. A. conceded, however, that with better storage facilities and higher prices for molasses, a better quality of molasses may become available to the distilleries.

23.1. The method of continuous fermentation of alcohol was developed in Russia over sixty years ago but the process was

#### 23. Research and Development

adopted on a large scale only after the end of the Second World War. in France more recently some variants of the continuous method have been developed in res-

pect of fermentation invats, taking advantage of level differences. In the Czechoslovak plants working on molasses by either the periodical or the continuous process, separate fermentation is being tried. It is believed that further development and improvement in alcohol industry in India would be based more and more on the continuous method as it raises the productivity, increases the out put and thereby reduces the unit cost of alcohol. In USSR as a result of introduction of the flowing method in factories in Moscow, labour productivity rose by 17.5 per cent in the last few years. Water used for cooling was reduced by 50 per cent. The consumtion of sulphuric acid rose in the periodical process by 8.3 gms. per decalitre of alcohol. But, to offset this, the capacity of the fermentation plant rose by 19.3 per cent and the output of alcohol per tonne of starch increased proportionately. It is found that in our country the technology of production of fodder yeast from the waste product of the alcohol factory has not been developed. Scientific investigation in this direction could lead to fruitful results.

23.2. The available literature\* also suggests that fermentation tanks should not have any ladders or partitions of pipes and so on because such obstructions result in the concentration of bacteria. Accumulation of yeast and fermentation of sugar lead to a gradual reduction in the quantity of nutrient substances

<sup>\*</sup>Based on "continuous fermentation and cultivation of Micro-oganisms" Pichepromisdat. Moscow 1960.

and increases in the products of the metabolic process of yeast cells. This is also a matter which needs consideration by the units.

23.3. Nevertheless we are of the view that the industry needs to devote more attention to better quality control and for the improvement of the facilities for research and development. We would further suggest that the AIDA should continue to collect information about technical improvements and developments abroad and pass it on to the distilleries for their benefit.



#### CHAPTER VIII

# RAW MATERIALS, POWER AND FUEL

- 24.1. Molasses —In paragraph 6 3 of the Report on "Cost Structure of the Sugar Industry and the Fair Prices for Sugar" which was submitted by us to Government
- 24. Raw materials recently, we had briefly referred to molasses which is the main by-product obtained in the manufacture of sugar and commands a ready market. We had also stated therein that the most rational use of molasses appears to be for the production of alcohol which in turn is used for the manufacture of other derivatives. These in turn from the base for a number of chemical industries. Non-availability of molasses for distillation purposes leads to under utilisation of capacity and, therefore, adds to the cost of alcohol. As such in the following paragraphs we propose to discuss various aspects of molasses;
- 24.1.1. While molasses produced as a by-product of white sugar through the sulphitation process is not edible and is used mainly by fermentation industries, molasses produced as a by-product of raw sugar is edible and has a market as cattle feed. An important use of sulphitation molasses is in the manufacture of ethyl alcohol. It is also used for tobacco curing, cattle feed, fuel, manure, chemicals, food, yeast and edible syrups and polish alum. For every kilo litre of alcohol produced, almost four tonnes of molasses are needed.

## 24.1.2. Production of molasses

24.1.2.1. Uttar Pradesh is the leading molasses producing State accounting for more than one-third of the overall production in the country on an average and Maharashtra about one-fifth. The other important sugar producing States are Bihar, Andhra Pradesh and Tamil Nadu etc. Details showing the State-wise production of molasses during the years 1965-66 to 1968-69 are given in Appendix-11. The following table shows the all India

production of sugar and molasses since the commencement of the Third Five Year Plan:—

TABLE 18

Production of sugar and molasses since 1961-62

	Yea	ar		of	oduction sugar thousand tonnes)	Production of Molasses (In thousand tonnses)	Column 3 as percentage of d column 2
		1			2	3	4
1961-62 .	•		•	•	2,714	1,087	40.1
1962-63 .	•	•	-	Jan	2,152	749	34.8
1963-64 .	•	•	8		2,567	962	37.5
1964-65 .		•	- 6		3,135	1,162	37.1
1965-66 .	•		E		3,541	1,530	43.2
1966-67 .	•				2,151	839	39.0
1967-68 .	•		E.		2,248	867	38.6
1968-69 .			16		3,559	1,439	40.4

24.1.2.2. It will thus be seen that molasses production has varied from 35 per cent to 43 per cent of the sugar output depending upon factors such as the variety of cane, soil and climatic condition and vagaries of nature, viz., floods, drought and incidence of pests and diseases, the duration of sugar season, and the nature of process and equipment of the sugar factory. Production varies from season to season and from region to region. Thus, it would be observed that the lowest percentage of molasses production in 1962-63 was because the sugar season in that year was the shortest on record. The proportion was the highest in 1965-66 as the sugar season was the longest for the period covered by the Table above. The length of the season has a bearing on production of molasses in that the over-ripeness in the later part of a long season leads to the destruction of sucrose and increase in the non-sugar content which leads in turn to higher production of final molasses at the expense of sugar.

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- 24.1.2.3. Our attention has been drawn to the research studies now in hand at the National Sugar Institute on exhaustibility of sucrose content in the mother liquor with a view to maximise crystallisation of the sucrose available in the final molasses. We are, however, assured by the Director of the Institute that there need not be any fear that the quality of the basic material for the fermentation industries will be affected adversely.
- 24.1.2.4. In our last report on the subject (vide paragraph 10.1.2.) we had observed that although the overall production of molasses in the country is adequate to feed the existing capacities of the distilleries, lack of planning in the location of the distilleries had resulted in considerable imbalance between demand and supply. We had, therefore, recommended that while going in for extra capacities for sugar factories and distilleries, it should be ensured that they are complementary. In other words, new should be allowed or existing one given licences for additional capacity only if supply of molasses was likely to be available from within a reasonable distance. It may be added that normally one sugar factory alone will not be in a position to supply the entire quantity of molasses required by a distillery having the economic capacity for the production of alcohol. A distillery having a capacity of 6000 kilo litres for example, has to obtain molasses from several sugar factories for the full utilisation of its capacity. An average sugar factory has the capacity of 1250 tonnes per day and three to four such factories of this size are needed to meet the requirements of one distillery of economic size. It must be added, that the position has changed since May 1966 and new units are no longer required to take out industrial licence. It would do if entrepreneures satisfy themselves that the requisite additional quantities of molasses would be forthcoming. In fact the Government of Maharashtra has informed us that it has permitted the establishment of four new distilleries on the basis of some increase effected in the crushing capacity of some sugar factories in the State, and that eight more sugar factories will come up in the near future. The question of installation of additional capacity for alcohol in the context of molasses availability was discussed thoroughly at the public inquiry. The general consensus of opinion is that there is no point in setting up additional capacity in States which have no surplus molasses. It is feared that location of new distilleries without taking due note of this fact will only lead to further difficulties for the industry. It may be added, that though the industry has been de-licensed strict control is being exercised, by the State Governments in regard to the establishment and functioning of distilleries.

## 24.1.3. Demand for molasses

24.1.3.1. We are informed by the Ministry of Petroleum and Chemicals that every effort is made to ensure the supply of molasses to the distilleries at controlled rates to the maximum extent possible. The A. I. D. A. is of the opinion that the actual availability of molasses worked out to 70 per cent of the production in the last two years. It has put the requirement of molasses for full utilisation of the existing distillery capacity (409,000 kilo-litres of alcohol according to A. I. D. A.) at 1.8 million tonnes. The actual requirement of molasses and the deficit in this regard for the years 1968-69 to 1970-71 would according to the Association, be as in the table below:—

Table 19

A. I. D. A's estimates of actual requirement and deficit of molasses in future

			5	REPORT OF	EAR	(In Millio	n tonnes)
Year			Sugar produc- tion	Molasses produc- tion	Molasses availabi- lity (at 70 per cent of produc- tion)	Actual requirement of molasses for full production capa-city	Deficit of molasses for full capacity
1968-69 .		•	2,7	1.08	0.756	1.8	1,044
1969-70 .	•		3.1	1.24	0.868	1.8	0.932
1970-71 .		•	3.5	1.40	0.980	1.8	0.820

Explaining the basis of estimation, the A. I. D. A. has said that as the average all-India sugar recovery from cane is 10 per cent and the average all-India molasses recovery from cane is 4 per cent, it has taken the production of molasses at 40 per cent of the estimated sugar output. Reference has already been made in Chapter-III on Demand for alcohol to the A. I. D. A.'s sugges\_ions regarding the steps to be taken to bridge the gap between the supply and demand of molasses.

24.1.3.2. The D. G. T. D. has estimated the requirement of molasses by 1971 to be 1.4 million tonnes for producing 300 million litres of alcohol on the basis that one tonne of molasses would yield 227 litres of alcohol. In an earlier Chapter we have estimated the demand for alcohol to go up to 330 million litres in 1971, for the production of which 1.5 million tonnes of molasses would be required.

## 24.1.4. Control on molasses

- 24.1.4.1. The distribution of molasses is controlled by the Molasses Control Order issued by the Govt, of India or State Government, as the case may be. Allotment of molasses to distilleries within each State is made generally by the Molasses Controller of the State or an Officer authorised by him while the inter-State allocation of molasses is made on the lines laid down at the Annual Conferences of the State Excise Ministers. In paragraphs 10.4 and 10.5 of our last Report we had referred to the general dissatisfaction prevailing in regard to the working of controls as well as the supply position of molasses. The A. I. D. A. and several individual distilleries have averred that there is still no real understanding between States in this regard. The A. I. D. A. has pleaded for centralisation of the control under one agency so as to minimise the operational difficulties. The Association has that there is considerable cross haulage of molasses also said which results in higher transport costs. It feels that better organisation of movements would reduce the transport cost of molasses now weighing heavily on the distilleries.
- 24.1.4.2. While most distilleries have asked for the continuance of controls on molasses as otherwise they could not expect to get any molasses in the present scarcity conditions, some have stated that owing to the uncertainty regarding the quantities likely to be allocated to them, it becomes difficult for them to phase their production programmes properly. They, therefore, suggest that the allocation should be made on an annual basis subject to review every six months, that is, at the start and closing of the cane crushing season. Some say that they could put up good storage tanks for the molasses at the sugar factory sites and hence, desire the allotment of molasses to be made to them on a stable basis. According to one or two units, some molasses is being released for free sale in the open market even before satisfying the prior demand of the distilleries. One distillery has even gone to the extent of suggesting that molasses not directly taken by particular distilleries should be stored at central points within the State for distribution to other distilleries. On the whole it has been urged that there is considerable scope for rationalisation with a to minimising the transport cost on molasses. In the view of the Association, the molasses produced by specific sugar factories should be allocated for particular distilleries especially where delayed receipt of allotment orders and intimation of changes in the allotment of molasses to the distilleries were found to hamper timely lifting, causing considerable hardship to sugar mills also. We suggest that the A. I. D. A. should take up

these issues with the respective State Governments with a view to plugging the loopholes in the operation of controls.

- 24.1.4.3 The question of linking up sugar factories to particular distilleries on of permanent basis needs to be explored with a view to rationalising the transport costs. This will also help the ugar factories and the distilleries to come to an understanding regarding the storage of molasses and enable a phased lifting of molasses in order to avoid congestion both at the level of the distilleries and sugar mills.
- 24.1.4.4 We have already suggested elsewhere a system of basic and variable quotas for consumers of alcohol. Such a system could be extended to the distribution of molasses also in view of the fact that most of the consumers and prouduers of molasses are more or less within easy reach other. A basic quota of atleast 50 per cent of the requirement of molasses from specific sugar factories should be issued straightaway to each distillery and the balance requirements being met on an equitable basis depending on the actual performance of suger factories. This may also prevent the indiscriminate establishment of distilleries of various sizes in States. Naturally, the newcomers would get second preference since the existing distilleries have to be given priority.
- 24.1.4.5. Priorities for distribution of molasses.—At the State Excise Ministers Conference held at New Delni in August 1967, it was decided that the priorities for distribution of molasses should be (i) distilleries in the State, (ii) distilleries in the neighbouring State (proximity of distilleries to the source of molasses should be taken into account), (iii) manufacture of citric acid, (iv) restricted releases for cattle and poultry feed and even more so for tobacco curing and foundries (where certain alternative chemicals are available). The State Governments have informed us that, by and large they are following the above priorities.
- 24.1.4.6. Free sale of molasses.—With the partial decontrol of sugar there is a strong demand from the sugar producers for a similar relaxation of the price control on molasses also, whereby a part of the molasses could be allowed for free sale. The I. S. M. A., however, had canvassed the thesis that partial decontrol should be extended to molasses as in the case of sugar and that for example, 40 per cent of the molasses produced by factories could be allowed for free sale in the open market, while the balance would be earmarked for allotment to distilleries. The A. I. D. A too has pointed out that some liberalisation in this regard will serve as an incentive to sugar factories for the construction of

durable steel tanks for storage. On the other hand the fear was expressed that once a certain proportion is allowed for free sale, the tendency will be to demand more and more of molasses for free sale. We discussed this question broadly with the Study Group on the Alcohol industry and one of the suggestions made was that sugar factories should be allowed to sell a portion of molasses produced by them (say, 20 per cent) in the free market but with the proviso that only such of those sugar factories as are having steel storage tanks could do so. We think that there is some force in these views and would, therefore, suggest that the release of 20 per cent of the total supply of molasses for free sale may be considered sympathetically.

- 24.1.4.7. It has also been argued before us that the manufacture and supply of potable liquor violates the Directive Principles of State Policy enshrined in the Indian Constitution which provide that the "State shall endeavour to bring about prohibition of consumption of intoxicating drinks" and, therefore, the utilisation of molasses in the manufacture of potable liquor should be prohibited. In any case, on purely economic grounds, we feel that manufacturers of industrial alcohol should not suffer for want of this essential raw material and all necessary steps should therefore be taken to maintain an uninterrupted flow of molasses to them on a priority basis.
- 24.1.4.8. Central Agency for Molasses.—It has been stated that the agreements reached at the Annual Excise Ministers' Conference over the inter-State movement of molasses are not strictly kept up by some of the supplying States. This naturally puts the consuming distilleries in the deficit States in difficulties. To avoid serious regional imbalances in the molasses production and demand, there is a pressing need for effective co-ordination so as to ensure an equitable distribution of molasses on an all-India basis. In 1967, a suggestion was made for the establishment of a Central Molasses Board to be headed by the Minister for Petroleum and Chemicals. The main producing States for molasses, namely, U. P., Bihar, Tamil Nadu and Maharashtra were asked for their views on the point whether the Board should be a consultative or statutory body. Bihar, Maharashtra and U. P. were for the formation of a consultative board, but Tamil Nadu, was not in favour of even this. It was intended that the Board, when formed would meet atleast once in the sugar season to assess the production, availability and demand for molasses in various States and make inter-State allocations to be effectively followed up by the States concerned. It was envisaged that a small Working Group of this

Board consisting of the surplus States might meet whenever necessary to review the position and make any suitable revisions in the inter-State allocations. In the latest Conference of the State Excise Ministers held in May 1969, a majority of the State Governments were again in favour of a consultative body. Tamil Nadu did not attend the meeting. Nevertheless, the consensus was in favour of the constitution of a fully representative Board including the Excise Ministers of all the States. We strongly support this proposal and would recommend that such a Board should be set up at a very early date. Its composition should, however, be sufficiently compact to reach expeditious conclusions and decisions in respect of (a) the problems of inter-State movement and co-ordination as between surplus and deficit States, (b) the linking up of distilleries and sugar factories, with a view to avoiding cross-haulage so as to lower the transport costs, and (c) complaints received on quality.

# 24.1.5. Quality and Storage of Molasses.

- 24.1.5.1. In paragraph 10.7 of our last Report, we had observed that it was for the State Controllers of Molasses to ensure that the units did not accept diluted molasses on any grounds or pay a higher rate for it. Most of the State Governments have said that they have made the necessary arrangements in this regard although one or two have pointed out certain practical difficulties, as for example, the long haulage of molasses which seemed unavoidable. On the other hand, a large number of distilleries have again complained about the poor quality of molasses received by them and pointed out various defects such as molasses being mixed with water and mud and not conforming to even Grade III.
- 24.1.5.2. The A. I. D. A. has observed that owing to the general shortage of molasses distilleries have no alternative but to accept even diluted molasses while paying the price fixed for the higher grades. During the public inquiry, the industry attributed its low level of efficiency to the poor quality of molasses received by it. The Sugar Industry has, however, argued that molasses produced by the factories is generally of standard quality, but because of lack of proper storage facilities the quality gets deteriorated. Delayed lifting by the distilleries worsens the quality further. We discussed the question of quality of molasses supplied to the distilleries during the public inquiry. While the A. I. D.A's representatives reiterated that the sugar industry should be prevailed upon to provide the storage capacity for molasses so that the molasses available to the alcohol industry is of good quality, the representatives of the sugar mills, however, pointed out that

sugar mills cannot be asked to incur considerable expenditure for providing proper storage for molasses, the benefit thereof being derived by the distilleries. In any case, the I.S.M.A. feels that with the highly uneconomical prices that have been fixed for molasses, there is no justification for asking the sugar factories to construct concrete or steel tanks for molasses storage, as they cannot bear the high initial and the recurring costs involved.

24.1.5.3. We are satisfied that there is considerable force in the complaints made with regard to the quality of molasses supplied to the distilleries. A way out should be found whereby the sugar industry could construct concrete or steel storage tanks in the place of the present kutcha storage to prevent both leakage and wastage of molasses. Now that the supply position of required materials like cement and stee! has eased somewhat, there should not be much difficulty on this account. Unless the storage problem is solved satisfactorily, good quality molasses cannot obviously be made available to the distilleries. A constructive suggestion thrown up at the public inquiry was that the sugar and alcohol industries and the State Governments should pool their resources and set up proper storage facilities for molasses. invited in this connection to paragraph 24.1.4.6, which touches upon our discussions with the Study Group on Alcohol Industry on this problem. A suggestion was made to link the question of free sale of a part of molasses production to the obligation to construct steel tanks by the sugar factories. In the interest of proper. utilisation, preservation and avoidance of wastage of this essential national product, ways and means have to be devised so that the molasses produced is stored in proper condition before it is lifted by the distilleries. While sugar factories should handle molasses only for the duration of the season, the distilleries must provide storage for the remaining period to ensure that sugar factories are not burdened with stocks of molasses beyond the period of two to three months after the end of the season. Since the season lasts for only a part of the year, storage for a part of the total production of molasses should in equity be provided by the distilleries. We revert to this point in the appropriate context of the Chapter on Price Fixation. It may be added that the Central Molasses Board when constituted could also look into the matter with the assistance, if need be, of the Central Ware Housing Corporation and other interests.

# 24.1.6. Prices of Molasses

24.1.6.1. The prices of molasses are fixed by the central or State Molasses Control Order. The ceiling price for Grade I molasses containing 50 per cent and above (percentage of total sugar content expressed as reducing sugar) is Rs. 6.70 per tonne

inclusive of loading and shunting charges. The I.S. M. A. has submitted that there has been no change in the prices of molasses of different grades since they were first fixed in 1942-43, in spite of the fact that there has been a substantial increase in interest rates, loading, siding and shunting charges which have to be incurred by the sugar factories. The I.S. M. A.has come out with a trenchant criticism of the existing price structure for molasses as being highly uneconomic, unremunerative and unrealistic and without any rational basis as it does not enable the factories to cover even the cost of filling tank wagons, siding and shunting charges. During the public inquiry also, the representatives of sugar industry contended that by not raising the price of molasses. ipso facto amounts to subsidise the alcohol industry for no particular reason. They, therefore, pleaded for substantial increases in the existing control prices of molasses atleast by 100 per cent over the present rate. The A.I.D.A., on the contrary, has stated that under the sugar price fixation formula, realisation by sale of the by-products is adjusted in the manufacturing cost of sugar and therefore, during the period of controls, increase in of molasses will not tend to appreciably reduce the price of sugar nor will it benefit the sugar factories very much.

- 24.1.6.2. Many distilleries which have replied to our questionnaire have alleged that it is common knowledge that molasses are being sold at prices higher than the controlled price and often intentionally it is diluted and allowed to deteriorate in quality so as to make it non-distillable with a view to securing permission for free sale of such molasses fetching very high prices in the open market.
- 24.1.6.3. The Sen Commission (1965) suggested inter alia that the control price of molasses be raised by atleast 50 per cent as according to it the price fixed for molasses by Government was very low and did not provide sufficient incentive to sugar factories for undertaking adequate investment on steel tanks for proper storage of molasses. The Ministry of Petroleum and Chemicals, however, did not accept this recommendation for the following reasons—

"The recommendation of the sugar Inquiry Commission (Sen Commission) to the effect that the selling prices of molasses be increased by 50 per cent to serve as an incentive to the sugar mills to put up adequate storage accommodation, has been considered in all its aspects and it has been decided that the recommendation should not be accepted in view of the prevailing conditions. The recommendation was made on the understanding

that the additional realisation would be founded separately for utilisation on storage accommodation. There are certain practical difficulties in the enforcement of this condition. Apart from this, any increase in the price of molasses will have an impact on the prices of alcohol and consequently on alcohol based industries. The entire molasses produced in the sugar mills are not supplied for distillation purposes at controlled prices but considerable quantities thereof are released for free sale at prices which are reported to be many times more than the controlled prices. Besides, the sugar industry has been given some relief in the shape of partial decontrol of sugar to serve as an incentive for additional production of sugar and its by-product molasses. For these reasons, it is also not possible to accept the suggestion made in certain quarters that there should be partial decontrol of molasses on the analogy of sugar."

24.1.6.4. In connection with the present inquiry, we had requested the State Governments to give their views on the current selling prices of molasses. Of the eight State Governments that have expressed any opinion in this regard, one has stated that the existing prices are reasonable, while another has said that any price increase would be in the nature of a windfall to the sugar factories. The rest have conceded that the demand for a price increase in the molasses is reasonable and have in fact suggested an varying from 25 to 50 per cent. One of them has added that the price of molasses released to private parties might be increased by 100 per cent in order to give "a greater advantage of scarcity value" to the sugar factories. The price increase has been generally supported as an incentive to the sugar factories to create better facilities for storage. Though according to our terms of reference the fixation of prices for molasses is not within the scope of this inquiry. we nevertheless, feel that this problem has to be looked into both from the point of view of the manufacturer as well as the consumer. While the increase in the price of molasses is not likely to benefit the sugar industry significantly, it is likely to have its repercussions on the alcohol and alcohol-based industries. We have also touched upon this topic in the paragraph 24.1.4.6 where we have suggested that certain proportion of the molasses production by sugar factories be allowed for free sale in the open market. This device may provide some relief to the sugar factories. In our Chapter on price Fixation we deal with the question of escalation of the prices of alcohol in accordance with the movement, if any, in the prices of molasses.

### 24.1.7. Khandsari Molasses

- 24.1.7.1. At the Excise Ministers' Conference held in May 1969, the issue of whether or not khandsari molasses should be made available for distillation came up for discussion from the angle of price, extension of the order to other States and the distribution problems in enforcing the Order. The representative of the Ministry of Food and Agriculture stated that the khandsari molasses was found to be useful for edible purposes and, therefore, it was necessary to ban it for distillation purposes. The representatives of the Punjab Government and a number of other States were not in favour of the ban. There was no consensus on the desirability or feasibility of bringing khandsari molasses under the scope of control.
- 24.1.7.2. Some of the State Governments have represented that there are practical difficulties in the enforcement of control and collection of molasses from khandsari units. All the same, to augment the supplies of molasses, the Molasses Control Order. 1961 was amended in March 1968 to extend the control to khandsari molasses. The amended Order does not apply automatically to all the States, but is extended by Notification to cover, at its request, a particular State. So far, this control has been introduced only in the States of Mysore, Tamil Nadu and Andhra Pradesh. Meanwhile, the Andhra Pradesh High Court has without questioning the validity of Order imposing such control struck' it down on the main ground that the Government had "not applied their mind" to the matter of price of khandsari molasses which has a higher sugar content than the molasses arising from the vacum pan process. We understand, that the Central Government is examining the question of fixation of a proper price of khandsari molasses. However, there is a view that as the total sugar content of khandsari molasses is of the order of 60 to 65 per cent as compared to 50 per cent (Grade I) of the molasses produced in vacuum pan process, the prices of the former be proportionately higher than that of Grade I in the present schedule.
- 24.1.7.3 There are proposals from other states to bring khandsari molsses under control. In the context of this development it would be necessary and desirable to make adequate arrangements for the collection of data on actual production and sales as well as price of khandsari molasses on a regular basis. Obviously without the basic data no from of control can succeed. perhaps an appropriate agency could undertake this task of collection and compilation of the necessary data with the help of the State Government

- 24.1.7.4. According to the Gur (Regulation of Use) Order, 1968, issued by the Ministry of Food and Agriculture, Community Development and Co-operation on 3rd April 1968, the use of convertible molasses (i.e. khandsari molasses) which is an essential commodity is banned for distillation purposes.
- 24.1.7.5. According to the All-India Improved Khandsari Sugar Manufacturers' Association, Moradabad, Uttar Pradesh the khandsari molasses production for 1969 to 1974 might go up by 25 per cent depending upon the production and yield of cane. The khandsari molasses has more sugar content and is edible. Bastern Uttar Pradesh, Bihar, Bengal, Assam, Rajasthan and Maharashtra are the main markets for this commodity. It is also used for the manufacture of inferior type of gur which is used as cattle-feed in most of the States. Due to low recovery of sugar, the main profits of the small scale khandsari industry depend on the sale of molasses. As such, according to the Association the Government has never thought it advisable to take over khandsari molasses for purposes other than human and cattle consumption. The Association is of the opinion that it is not advisable to convert the khandsari molasses into alcohol.

## 24.1.8. Transport of Molasses

- 24.1.8.1. Under the Ethyl Alcohol (Price Control) Orders the distilleries are authorised to leavy an additional charge for transport of molasses upto 15 paise per litre. The order also requires that the transport charge should be calculated on the basis of the actual amount paid by the unit in the previous year and added to the cost of alcohol in the succeeding year. We had made the following suggestion in paragraph 10.9 of our last report:
  - "It is advisable to evolve and set up a machinery to ascertain actual expenses incurred by each distillery by way of transport charges for molasses consumed during the previous accounting year and spread such amount over the entire quantity of alcohol produced (i.e. inclusive of the quantity of alcohol produced from own molasses, if any, on which no transport charge is incurred). The extra charge for transport of molasses so calculated may be intimated to the purchasers, say, within a month after the end of the previous accounting year and it should remain in force for one year i.e., till one month after the close of the current accounting year."

The Ministry of Petroleum and Chemicals have informed us that the above recommendation has been considered and an amendment has been made by inserting a new Clause 3(A) with effect from 27th May 1968 in the Ethyl Alcohol (Price Control) Order, 1966 empowering the Excise Commissioner of each State to call upon the seller and the buyer to furnish such documentary evidence as may be considered necessary by him for the purpose.

- 24.1.8.2. During the public inquiry, a number of consumers expressed their dissatisfaction about the additional charges that are being added to the price of alcohol from time to time in the name of transport charges for molasses. Although transport charges amounted to a substantial part of the price charged by them, they complained that the distilleries had refused to give any break-up of the molasses transport charges which are tagged on to the price of alcohol. One of the biggest consumers of alcohol has stated that the distilleries on occasions charged nearly four times the maximum allowed. A remedial suggestion made by a large consumer was that molasses transport charges should be allowed on the basis of the railway freight rate, plus a maximum of 10 per cent of that rate for road transport and "nothing more".
- 24.1.8.3. The A. I. D. A., however, has claimed that bulk of the distilleries have levied much lower transport charges on the basis of their actual cost and the ceiling of 15 paise per litre as the additional charges to be loaded on to the basic price of alcohol on account of transport of molasses is satisfactory so far as movement of molasses from one area to another within a State is concerned, while it is not adequate for inter-State movement of molasses. In the view of the Association, the consumer should have no grudge as it would definitely be more economical for a distillery to get molasses even from very long distances within the country than import alcohol from foreign countries at far higher cost, sometimes at treble the internal price, or alternatively to keep a part of his capacity idle.
- 24.1.8.4. The question of weightage being given in the price of alcohol to transport charges, which is one of the terms of reference to the Commission, is being dealt with in detail in the relevant Chapter on Price Fixation.

## 24.1.9. Imports and Exports of Molasses

24.1.9.1. Imports.—The imports of molasses during each of the years 1965 to 1969 (January-March) were as given below:

TABLE 20
Imports of Molasses

X/			Edil	ble	In	edible
Year			Qty. (Tonnes)	Value (000 Rs.)	Qty. (Tonnes)	Value (000 Rs.)
1965			383	244	N	egligible
1966 Pre-de-valuation	n.		104	45		• •
Post-de-valuation			404	477		
1967			279	286	2	0.4
1968		,	13	7	10,357	2,164
1969 (JanMarch) .		6		333		••,

For the three years before 1968 most of the imports consisted of edible molasses. In 1968, however, a sizeable quantity of inedible molasses was imported. The U.S.A. had accounted for most of these imports.

24.1.9.2. Exports.—The information available on the exports of molasses during the years 1965 to 1969 (Jan.-March) is summarised below:—

TABLE 21
Exports of Molasses

Year			Edi	ble	Ine	dible
regi		(	Qty. (Tonnes)	Value (000 Rs	Qty. .) (Tonnes)	Value (000 Rs.)
1965			743	293	30,638	2,004
1966 Pre-de-valuation	•	•	678	2 <b>9</b> 8	19,839	1,067
Post-de-valuation .	•		491	402	65,700	6,166
1967	•	•	3,486	1,604	76,032	9,084
1968	•	•	982	1,017	235	51
1969 (JanMarch) .			862	719	. 4	1

Significant exports of inedible molasses were made to Japan, U.K., Nepal and South Korea. The decline in the exports of molasses, recently can be attributed to internal demand apart from the shortage of molasses supply in the country. According to the Export Trade Control Policy (1969), export of molasses is not normally allowed but in exceptional circumstances an application has to be made to the Chief Controller of Imports and Exports who will consider it in consultation with the technical authority concerned.

### 24.2. Chemicals

Apart from molasses, certain chemicals are also needed in small quantities in the process of manufacture of alcohol. Ammonium Sulphate and Urea, for example, serve as nutrients in so far as they supply the requisite nitrogen to the yeast for its growth and thereby accelerate the fermentation of the molasses. Urea contains a higher percentage of nitrogen (N2) than Ammonium Sulphate. It is, therefore, claimed to be more effective than ammonium sulphate. Sulphuric Acid is also used for maintaining the desired pH for promoting the development of the yeast culture. Benzene is used as dehydrating agent in the production of absolute alcohol, apart from being used as a special denaturant. Methyl alcohol, acetone, ethyl either and croton adlehyde are also needed as special denaturants. Pyridine bases and light caoutchaucine are used as ordinary denaturants. It was found that these chemical raw materials constituted a small fraction of the cost of alcohol and the variation in their prices is not likely to affect the overall cost to any considerable extent.

25.1. Electric power forms a minor item of the total costwhile fuel account for a substantial portion of it.

The fuels used by the distilleries consist mostly of steam, furnace oil, bagasse and firewood. Some distilleries use the steam available from the sugar factories to which they are attached:

- 25.2. Although individual distilleries who have replied to our questionnaire have no comments to make under this head, the A. I. D. A. has complained that the industry has to face frequent stoppages of power owing to faulty distribution systems which affect the recovery of alcohol. It has added that the State Electricity Boards have been raising their rates too frequently.
- 25.3. One of our terms of reference requires us to examine whether there is any case for increase in the additional charges to be loaded on to the basic price of alcohol on account of the use 6-2 T.C. Bom/71

of furnace oil. Under the existing arrangements, distilleries are allowed to add a sum of 1.55 paise per litre on this account in cases where furnace oil had been used in place of coal as fuel. The A. I. D. A. has informed us that the Indian oil companies have increased the price of furnace oil giving the increase in the excise duty on this commodity as the reason. As a result, the Association has contended that the distilleries are incurring 3.45 paise per litre, whereas under the Ethyl Alcohol (Price Control) Amendment Order, 1966, the Government of India have allowed only 1.55 paise per litre. The Association has therefore, requested that the balance of 1.90 paise per litre should also be allowed to the alcohol units. During the public inquiry, on the other hand some of the consumers' representatives stated with some force that there is no justification for using furnace oil when coal is available. A consumer had even questioned the use of furnace oil at a higher cost, and suggested the withdrawal of the incentive for its use, in order to bring down the cost of alcohol. We shall deal with this question in greater detail in the Price Fixation Chapter.

सन्धर्मन जयन

#### CHAPTER IX

# Selling System Levies and prices

26.1. All sales of alcohol are effected on the basis of licences/permits issued by the State Excise authorities. No alcohol can be issued by any distillery whether within the State or outside without a permit.

As the product is subject to controls, permits and licences, there is no special selling system in existence in the alcohol industry. Most of the distilleries who have replied to our questionnaire have informed us that they sell alcohol directly to industrial consumer and that they do not give any discount or commission.

# 26.2. Pattern of consumption

26.2.1. The pattern of consumption of industrial alcohol by the major groups of industrial consumers during the year 1965 to 1968 as reported to us by the D. G. T. D. is as below:—

Table 22

Pattern of consumption of alcohol

(In kilolitres) Consumption in the year Name of the consuming industry 1965 1966 1967 1968 (a) Synthetic Rubber 44,550 41,400 57,150 61,650 (b) Organic Chemicals (Acetic 24,240 30,231 26,884 34,512 Acid, Butanol, Ethyl Acetate, etc.). (c) Plastics 31,279 35,193 17,563 26.322 (d) Rayon and Synthetic Fibres 6,588 8,155 6,664 6,641 (e) Insecticides 1,433 1.540 1.875 1.885 (f) Drugs and Pharmaceuticals. 877\* 2.148\* 1,952\* N.A. (g) Paints and Dyes 20 100 994 TOTAL . 108,967 118,687 112,188 132,004

<sup>\*</sup>For financial years.

It is seen that synthetic rubber continues to be the largest consumer of alcohol, accounting for almost one half of the total. The next two large consuming groups are organic chemical industries and plastics, which together, consume almost the same quantity as the synthetic rubber industry. Although according to the D.G.T.D. there are a large number of small consumers in the States who are not covered by the figures quoted above it has not been possible for us to get any precise idea of the level of consumption of alcohol by them.

26.2.2. It must be added that the production of absolute alcohol has practically disappeared. In fact, the A. I. D. A. has stated that all large industrial consumers purchase only rectified spirit which accounts for over 80 per cent of the total alcohol production; treated with suitable dena urants. The balance is utilised for potable liquor and for other purposes. Some of the units make potable alcohol straight away without making 95% ethyl alcohol as an intermediate stage. As such, the D. G. T. D. feels that it is not possible to work out exactly the percentage of alcohol used for potable purposes from the total production of alcohol. However, the approximate percentages of the total production diverted to potable spirit yearly from 1965 to 1968 are given below:

Table 23

Approximate proportion of alcohol used for potable purposes

	. ,		(500.00)	1965	1966	1967	1968
Type of alco	oho!		सद	(%)	(%)	(%)	(%)
Indian made fore (Rum, Gin, Brandy, etc.)	eign W	liq hisk		4.3	3.5	6.9	5.9
Country spirit	•	•	•	11.2	8.7	12.4	15.3

It seems there has been a rising trend in the production of potable liquor consequent on the gradual relaxation in the policy of prohibition in some States.

27.1. Central Levies,—As already observed in our last Report, there is dual excise on alcohol, one levied by the Central Government and the other by the State Government authorities. Power alcohol is classified under Item No. 6(ii) of the First Schedule to the Central Excise

and Salt Act, 1944. The Central Excise duty is levied and administered by the Central Government. The Central Excise authorities have informed us that the current rate of excise duty is Rs. 620 per kilo litre. Besides the Central Excise duty, the Central Government also levies duties at various rates on medicinal and toilet preparations containing alcohol as laid down in the Medicinal and Toilet Preparations (Excise Duties) Act, 1955, which is a Central Act, but is administered by the State Excise Authorities. The rates of levies under the Act, however, are uniformally applicable to all the States.

### 27.2. State Levies

- 27.2.1. In addition to the Central levies referred to above the State Governments also impose certain levies such as vend fees and permit fees. Particulars of the rates of levies in various States are given in Appendix 12.
- 27.2.2. It will thus be seen that the rates of duties vary from State to State. In paragraph 11.9 of our last Report, we had observed "we also consider that in the interest of keeping down the prices of industrial alcohol, it is preferable that on the basis of a uniform policy for the entire country, mis cellaneous State levies should be replaced by a suitable excise duty uniformly applicable in all the States". The Ministry of Petroleum and Chemicals has informed us that it has been decided not to accept the proposal as most of the State Governments are not in its favour. In this connection, we had also requested the State Governments to give their comments on the question of a uniform levy. While one of the major alcohol producing States has stated that as long as the proposed uniform levy is reasonable, there may be no difficulty in accepting the same, some other State Governments are of the opinion that the levies in their States are nominal.
- 27.2.3. The A. I. D. A. has represented that higher levies on alcohol in any State render the distillery industry of that State less competitive with the distilleries of other States. Some distilleries have also brought to our notice the disparity in the rates of export levies in different States resulting in consumer preference for import of spirits from States where the rate of export duty is comparatively low. This affects the off-take from distilleries in States with higher export levies, sometimes resulting in frequent closure of units. For example, we are told, in Bihar where the Export Pass Fee is the highest at 75 paise per litre, some distilleries lost as many as 166 days production mainly because of the reluctance of other States to import the high priced alcohol of Bihar. In the overall interest of the industry every effort has to be made to

remove such handicaps. What is suggested is uniformity of levies and not necessarily reduction in the rates of duties, and we therefore, feel that a fresh effort should be made to persuade the State Governments to reconsider the matter.

- 28.1. It may be recalled that under the provisions of the Indian Power Alcohol Rules, 1950, the 28. Domestic Prices price of power alcohol was fixed by the Government of India at 11 annas per gallon which worked out to 15.18 paise per litre. Later, under the Ethyl Alcohol (Price Control) Order, 1961 the ceiling prices of rectified spirit and absolute alcohol (100 per cent) were fixed, the former at 19 paise and the latter at 20 paise per litre. As the industry was not satisfied, it represented its case to the Government who in October, 1964 requested us to inquire into the ceiling prices. Pending our final recommendations, as an interim measure, the ex-distillery selling price was raised to 20 paise per litre for rectified spirit and 21 paise for absolute alcohol in order to provide for the increased wage costs. In our Report (1965), we had recommended the ceiling price (exdistillery) of rectified spirit (100 per cent) at R2. 211 per kilo litre and that of absolute alchohol at Rs. 231 per kilo litre. These recommendations were accepted by the Government and the revised prices were notified with effect from 29th June, 1966.
- 28.2. Cost of alcohol in relation to the total cost of end products.—As stated in paragraph 1.2 the prices were increased by Rs. 26 per kilo litre with effect from 2nd April, 1968. The current ceiling prices of alcohol are as under:—
- Absolute alcohol conforming to I. S.I. Standard No. 321-1952, naked, for equivalent volume at 100 per cent v/v strength.

Rs. 257 only per kilo litre, ex-distillery.

 (ii) Rectified spirit conforming to I. S. I. Standard No. 323-1959, naked, for equivalent volume at 100 per cent v/v strength. Rs. 237 only per kilo-litre, ex-distillery.

Though the basic controlled price is uniform for all consumers throughout India, the final cost differs from cosumer to consumer owing to variations in excise duties, sales taxes and other levies and fees, transport and handling charges in the different parts of the country.

## 28.3. Cost of Alcohol to consumers

28.3.1. as industrial alcohol is the basic raw material required for the manufacture of synthetic rubber, plastics, chemicals, paints and several other products, any variation in its price

naturally affects the cost of production of these products. From the information available to us, it is seen that the cost of alcohol was as much as 55 per cent of the total cost of the end product in the case of one of the largest consumers of alcohol engaged in the manufacture of polythene followed by 46 per cent in the case of the synthetic rubber unit. For an organic chemicals manufacturer, the incidence of the cost of alcohol was of the order of 40 per cent, while for another it was 24 per cent. Alcohol accounted for about 21 per cent of the cost of acetate yarn. For the remaining consuming industries such as toilet goods, cosmetics, insecticides and shellac, it formed less than 10 per cent of the total cost of the end product. The cost of alcohol to the total cost was not significant in the case of the drugs and pharmaceutical industry.

28.3.2. The high cost of alcohol for some of the large consuming industries has been attributed to the supply of imported alcohol to them. Some of the consumers who met us, stated that the allotment of imported alcohol which is very costly, affects their cost and reduces their capacity to compete in the export market. This point seems to have some substance. With a view to helping the export industries, we recommend that such industrial consumers of alcohol who are actually using it for the production of goods for export, should be given preference in the allotment of the indigenous supplies rather than of the imported alcohol.

29.1. The c.i.f. prices of alcohol as reported. by the Collec-29. Import Prices tors of Customs are:—

TABLE. 24

C.I. F. prices of imported alcohol

Specification	Source of Import	Date of import	C.i.f. Price (Rs. per kilo ltre)
Ethyl alcohol minimum 95%			
(i) By volume guylussac at 15°C	Brazil (through Kandla)	6-2-1968	764.10
(i) Industrial ethyl alcohol (190 U.S. Prof.)	U.S.A.(through <b>K</b> andla)	31-7-1968	773.08
(iii) Industrialethyl alcohol 95/96°C guylussac@15°C	U.S.A.(through Kandla)	19-6-1968	808.26
(iv) Industrial ethy alcohol undenatrued minimum 95° guylussac at 60°F in bulk	Switzerland (through Calcutta)	July and October, 19	791.25

29.2. Data on average c.i.f. prices furnished to us by some consumers of alcohol are as below:—

				C.I.F.Prices (Rs. per kilo litre)
			•	. 760.0 (1968)
	•			. 809.9 (1968)
ratio	on of	India	•	. 778.0 (1967)
	•		 • • •	ration of India

It thus appears that the price of imported alcohol was more than three times the controlled price of indigenous alcohol.

30.1. The A. I. D. A. and some individual distillers have pleaded for an upward revision of the selling

30. Views on Current prices of alcohol on grounds of lower utilisation of distilling capacity, rise in the cost of items like labour, stores and spares as compared to 1963-64. The industry has made the following concrete requests:—

- (i) a reasonable return of at least 20 per cent should be provided so as to enable the industry to continue production;
- (ii) main consideration in determining the cost of production and price of alcohol should be utilisation of capacity with an escalation provision;
- (iii) provision should be made for modernisation and rehabilitation of plant and machinery.

In justification of its demand the industry has argued inter alia that (a) the rise in the price of alcohol has been only 18 per cent since 1944-45, whereas the prices of other industrial products/raw materials have increased much more, and (b) at current controlled prices, the Indian alcohol is the cheapest in the world today. Some distilleries have also put forward other interesting arguments in the same context. For example, a new distillery has suggested that the basic price of alcohol should be raised by Rs. 180 per kilo litre, exclusive of the molasses transport charges. In its view, even at the higher price, the cost of alcohol to the consumers would be much lower than the cost of imported alcohol. Another distillery has however pointed out that there would be no case for any further increase in price, if only the distilleries could be enabled to run at full capacity.

- 30.2. Consumers, on the other hand, have opposed any further increase in the price of alcohol. The Indian Chemical Manufacturers' Association (I. C. M. A.) has put in a forceful plea that the review of prices should not be based upon conditions prevailing in the drought period when production capacity was limited by the reduced availability of molasses. Referring to the claim of the Alcohol industry that the prices of alcohol should be based on capacity utilisation, the I. C. M. A. feels that it will deal a "fatal blow" to the economies of alcohol based industries which have invested a large amount of capital. The Organisation of Pharmaceutical Producers of India (O. P. P. I.) has observed that a uniform rate of excise duty throughout the country will be a major factor in stabilising the prices of the end products. particularly since the incidence of excise duty in the case of denatured alcohol in the total cost of alcohol to the consumers is about 60 per cent. Other consumers of alcohol have emphasised that (a) alcohol based industries have developed on the specific assurance from the Government that alcohol will be made available at a low price, and now if the prices of alconol were to be increased, they would be compelled to seek alternative raw materials, though they may not be otherwise interested in such a changeover; (b) continuous escalation of alcohol prices will upset the economies of the alcohol based industries; (c) increase in alcohol prices will affect the efforts to produce essential chemicals: and (d) there is need for a regular supply of alcohol at constant prices to industrial consumers.
- 30.3. The D. G. T. D. has observed that the selling price of alcohol is linked with the price of the finished products which are produced from alcohol and any variation in alcohol prices will set up a chain of reactions affecting the price structure of the alcohol-based industries. On the other hand, most of the State Governments have said that the current selling prices should be increased in view of the increase in the cost of production. The Government of West Bengal has stated that the present selling price has no relevance to the conditions obtaining in that State. It nas suggested that if the selling price of alcohol is to be of any practical benefit to consumers situated in States other than those in which it is produced, then a reasonable norm should be fixed for the incidental expenses involved in transporting alcohol from the distilleries to the importing States.
- 30.4. In the Chapter on Price Fixation, we consider the extent to which the prices of alcohol can be revised on the basis of our examination of the cost of production of alcohol. The views expressed by the various interests have been fully taken into account in framing our recommendations in that Chapter.

#### CHAPTER X

#### Price Fixation

- 31.1. The terms of reference require us to examine (a) whether it is necessary to continue the present uniform

  31 .Our approach to the prices based on the weighted average on an problem of price fixa- all-India basis or there should be different tion.

  prices for different distilleries or groups of distilleries and (b) whether it is feasible to lay down any formula as regards the price fixation based on utilisation of capacity.
- 31.2. Fixation of price for each distillery or a group of distilleries separately would imply the adoption of the individual cost of each unit which may not necessarily be reasonable. It may act as a disincentive for cost reduction. It may also require the creation of a central authority for marketing alcohol which is not envisaged at present. The A. I. D. A., the State Governments and also the consumers, by and large, have all suggested that the present system of uniform prices on an all-India basis should be continued. Taking all these factors into consideration we have decided to recommend one price for the industry with a temporary differential limited to two years with installed cadacities up to and including 6,000 kilo litres per annum.
- 31.3. As regards the question of laying down a formula for price fixation based on utilisation of capacity, the views of the various interests concerned are not uniform. We have given our careful consideration to the matter. We are of the view that the avail ability of molasses during the next three years may not materially differ from year to year and the shortage of molasses experienced in the 1966-67 and 1967-68 sugar seasons is not likely to recur. We do not, therefore, consider it necessary to lay down any formula for price fixation based on capacity utilisation.
- 32.1. After discussions with the A.I.D.A., we selected
  12 units producing mainly industrial
  32. Selection of units for alcohol and four whose principal production was potable spirit for detailed cost examination. The actual costs were exami-

ned for the financial year 1966-67 in respect of all the units except in the case of one where it was for its accounting year ended 31st December, 1967.

Actual costs per kilo litre of Reciffied Spirit in terms of 100% Alcohol for the year 1966-67 TABLE 25

(In Rupees)

SI. No.	1	2	3 4	4	5	5 6 7	7	8	6	V 01	Weighted
Capacity utilisation(%) 43.95 43.56	) 43.95	43.56	32.95	32.92	71.78	32.95 32.92 71.78 38.97 68.09 76.14 72.39	60-89	76-14	72.39	65.07	65-07 50-29
1. Materials:  (a) Molasses (excluding sales tax, transport, etc.)  (b) Chemicals	30.09	31.73	0-09 31-73 31-51 3 2-32 4-50 1-25	35.04	35.04 33.76 2.16 4.09	40-17	30-42	(0·17 30·42 25·19 4·63 6·34 2·49	1 1 1	5-39 3-37	30.83
TOTAL OF (1)	32-41	36·23	32.41 36.23 32.76 37.20 37.85 44.80	37.20	37.85	44-80	36.76	27·68	36.76 27.68 35.20 33.18	33-18	34-24
2. Power and Fuel .	58-43	42.66	58·43 42·66 98·40 62·90 46·04 77·36 96·61 76·09 72·69 64·01	62.90	46.04	77.36	19-96	76.09	72.69	64-01	60.99
3. (a) Salaries and Wages (excluding minimum bonus)	20-45	34-40	34-40 75-72 39-14 23-00 70-22	39-14	23.00	70-22	54.68	15.11	54-68 15-11 20-22	23.80	30-33
(b) Payment for excise Staff	:	1-23	:	:	10.68	10.68 30.79 2.42 7.76 5.01 2.78	2.42	7.76	5.01	2.78	3.14

TABLE 25-contd.

Sł. No.		М	æ	4	8	9	7	∞	Q	10	Weighted average
Capacity utilisation (%)	43.95	į	43.56 32.95 32.92	32.92	71.78	38-97	38.97 68.09 76.14 72.39 65.07	76.14	72.39	65.07	50.29
4. Repairs, mainten- ance and consum- able stores	25.58	18.89	37.35	27.04	25.58 18.89 37.35 27.04 16.35 15.52 47.56	15.52	47.56	5.80	1	8.78 13.39	21.01
5. Overheads (less sundry credits) .	12.38	11.78	22.60	28-14	11.78 22.60 28.14 9.89 14.37 38.88 11.25 16.76 17.62 18.41	14-37	38.88	11.25	16.76	17-62	18-41
TOTAL (3 to 5)	58-41	96.30	135.67	94-32	66.30 135.67 94.32 59.92 130.90 143.54 39.92 50.77 57.59 72.89	130.90	143.54	39.92	50.77	57.59	72.89
6. Depreciation	18.60	15.90	80.50	39.27	18·60 15·90 80·50 39·27 34·15 44·07 14·08 28·03 51·59 63·42 36·64	44.07	14.08	28 · 03	51.59	63.42	36.64
Cost of Production ex-works (excluding additional charges on purchased molasses)		161.09	347-33	233-69	167.85 161.09 347.33 233.69 177.96 297.13 290.99 171.72 210.25 218.20 209.86	297-13	290.99	27.171	210.25	218·20	209.86
Molasses: (a) Rate per tonne (Rs.) 6·56 6·40 6·70 6·64 6·72 6·70 5·74 6·62 6·69	95.9	6.40	6.70	6.62	6.72	6.70	5.74	6.62	69.9	5.85	
(b) Quantity per kilo litre (Tonnes)	4.587	4.955	4.702	5-275	4-587 4-955 4-702 5-275 5-023		5-995 5-299 3-803	3.803		4.457 5.095	

- 32.2. As per the figures furnished by the D. G. T. D. the tota installed capacity of the Union of India for the manufacture of alcohol is 315,309 kilo litres. The total installed capacity of the units selected for costing was 89,104 kilo litres, which represents about 28 per cent of the installed capacity of the industry.
- 33.1. Out of the sixteen units selected for costing one which has got several other activities in addition to the manufacture of rectified spirit, could not furnish to our Cost Accounts Officer any cost data in respect

of rectified spirit with the result that it had had to be dropped. Another unit was not ready with its data when our Cost Accounts Officer visited it, and, therefore, it had also to be dropped. Of the remaining 14 units, four have been mainly manufacturing potable liquor and their production of rectified spirit was negligible. We have, therefore, excluded them in working out the cost structure of the industry and have confined ourselves to the costs of the remaining 10 units. The actual costs worked for each of the 10 units are given in Table 25. For safeguarding the confidentiality of the information for individual units, we have adopted numerical symbols for them. The costs are per kilo litre of rectified spirit in terms of 100 per cent alcohol.

- 33.2.1. Some of the salient features of the costs are discussed below.
- 33.2.2. Period selected for costing.—At the time the reference about alcohol prices came to us, we had already on hand the inquiry into the prices of sugar. It had been decided by us that the actual costs in respect of sugar should be examined for the sugar season 1966-67. Where the distilleries are attached to sugar factories, some of the expenses are common both in respect of sugar and alcohol and we thought it proper that if we selected the same period for alcohol cost investigation also, the apportionment of common expenses between alcohol and sugar would be easier and could be done equitably, particularly in the cases of units where a proper cost accounting system was not in vogue. We, therefore, selected 1966-67 as the period for examination of actual costs.
- 33.2.3. Utilisation of Capacities.—As between the capacities reported by the D.G.T.D. and those ascertained by our Cost Accounts Officer there are some discrepancies. We had made a similar observation in our last Report on the Revision of Ceiling Prices of Alcohol in 1965 and had made a specific recommendation to the effect that a comprehensive survey of the actual capacity of

the distilleries should be made and where necessary licences should be issued for the capacities which existed but had not been licensed. The industry, however, was delicensed on 30th May, 1966, and perhaps for that reason, no survey of actual capacities was carried out. It may be that after that date the D.G.T.D. did not bring up-to-date the capacities of individual units. We have, therefore, for the limited purpose of costs, adopted the capacities as reported by the Cost Accounts Officers who have derived the annual capacities on the basis of the daily installed capacities as furnished by the costed units and taking the normal working days as 300 per annum. Any reference to capacities made by us in relation to costs is to those capacities calculated by our Cost Accounts Officers on the basis indicated above. In Table 25 we have indicated the capacities utilised by each of the units as also the weighted average capacity utilisation of all the costed units. It will be seen from the above comparative table that while the utilisation of capacity ranged between 32.9 per cent and 76.1 per cent, the weighted average of all units was 50.3 per cent. As the year 1966-67 has been a period of short supply of molasses it was not possible for the distilleries to achieve a better utilisation of capacity. That was the reason generally given for the lower utilisation of capacities, though some units situated in Andhra Pradesh, Mysore and Maharashtra attributed it to want of storage space also.

33.2.4.1. Molasses.—The price and distribution of this main raw material as also its grading are regulated by the Molasses Control Order, 1961 of the Government of India. The Control Order has been made applicable to Andhra Pradesh, Kerala, Tamil Nadu and Mysore while the other States of U. P., Bihar, Maharashtra, Punjab and West Bengal have their own Molasses Control Acts under which the prices, distribution, grading, etc. are regulated. According to the information furnished to our Cost Accounts Officers the costed units have been able to obtain most of their requirements of molasses at the controlled ex-factory rates. On the other hand, there is also some evidence to indicate that in some cases, especially for the production of potable liquor, molasses supplies had been secured at substantially higher rates. The consumption of molasses per unit of alcohol depends on the quality of the molasses and the efficiency of the distillery. In other words, it depends on the total reducing matter (as invert sugar) available in the molasses obtained and the fermentation and distillation efficiencies of the units. In most of the units a large part, and in some the entire quantity of the molasses procured was on payment for Grade I quality. Wherever Grade I molasses is obtained, the minimum fermentable sugar should be in the region of about 47.5 per cent; but in actual practice it varies from 33.13

to 47.66 per cent. We had in our last Report estimated that the overall efficiency for the Uttar Pradesh distilleries would be atleast 82 per cent and for the rest 82.5 per cent, except for one unit in Bihar where the assumption was that it would be only 80 per cent. As against the above assumption, the overall efficiencies of the units costed this time have been generally lower, although they varied from 69.59 to 85.57 per cent. No satisfactory explanation is available except that it was stated that the molasses supplied was of poor quality, and, though payments were made as for higher qualities, since there was a general shortage of molasses in the country during the period costed, the units had no option but to accept whatever quality was offered. This has resulted in lower fermentable sugar and lower efficiencies. Similar explanations were given at our inquiry in 1965 and we had recommended in para 10.7 of our last Report that distillers should exercise their rights under the rules for the control of molasses and not accept diluted molasses, nor pay any higher prnices than that fixed by the Price Control Order for it. We reiterate this recommendation. We give in the following Table the average fermentable sugar reported by the units, their overall efficiency, the actual consumption of molasses per kilo litre of alconol and waste percentages of molasses.

TABLE 26

Average fermentable sugar as reported by the units and their overall efficiency.

Serial No.	Average fermentable Sugar	Overall efficiency	Actual consumption per kilo litre (100%)	Wastage as %age of ac- tual consump- tion
	(%)	(%)	Tonnes	(%)
1	40.70	83.08	4 <b>.5</b> 87	3.82
2	38:15	82.04	4.955	••
3	43.70	75.47	4.702	1.68
4	38.83	75.72	5.275	0.20
5	44.37	69. <b>59</b>	5.023	1.37
6	33.13	78.07	5.995	••
7 `	37.91	77.21	5.229	1.09
8	47.66	85.57	3,803	••
9 .	43,40	80.17	4.457	0.97
10	39.98	76,12	5.095	2.38

The costs of molasses shown in Table 25 are the actual control prices paid for it including the wastages but exclude the sales tax n purchased molasses, its transport and other charges.

33.2.4.2. Transport charges on molasses.—Under the Ethyl Alcohol (Price Control) Order, 1966 a sum based on the actual average cost incurred for the transport of molasses to the distillery and any octroiduty paid or payable on molasses, in relation to the previous year, not exceeding Rs. 150/- per kilo litre of alcohol (100%) may be charged in addition to the price specified in clause 2 of that Order. One of the terms of reference to the Commission is whether there is any case for increase in the additional charges to be loaded on to the basic price of alcohol on account of transport of molasses. The year 1966-67 has been one of shortage of molasses as compared to demand and the distillers lifted this raw material from distant places in order to utilise their installed capacities to the maximum extent possible. Data were collected in respect of each distillery as regards the quantities of molasses transported from outstations and the transport and other costs, including sales tax, on such outside purchases incurred on them. The details of the proportion of molasses obtained from outstations, incidence of expenses per tonne of molasses actually transported. the average incidence of freight and other charges on total quantity of molasses consumed and the average incidence of this additional cost per kilo litre of alcohol are detailed in Table below.

Table 27

Details regarding proportion of molasses obtained from outstations and transport and other costs on such purchases

Serial No.	Proportion of molasses obtained from outstations	Freight and other expenses per tonne actually transported	Average in- cidence of freight on total quantity of molasses con- sumed	Average incidence per k/litre of alcohol(100%)
	%	Rs.	Rs.	Rs.
1	57,56	23.41	13.47	61.78
2 3	61.76	31.83	17.89	88.63
	100.00	12.00	12.00	56.44
4 5 6	76. <b>9</b> 7	12.97	9.05	47.72
5	2.99	27.34	0.84	4.24
6	56.69	3.08	1.74	10.47
7	81.37	11.23	9.08	48,12
8 9	70.81	22,45	18.79	71.48
	78 <b>.5</b> 3	12,74	10.15	45,24
10	100.00	8,77	8.98	45.76

The above table indicates that even attached distilleries had to the major portion of their requirements from outside purchases, with the exception of one unit whose proportion purchases to the total quantities obtained was about three per cent. The proportion of molasses obtained by the attached distilleries from outstations was as high as 81.37 per cent in the case of one unit and the lowest, with the exception of the unit mentioned above, was 56.69 percent in the case of another. The overall incidence of extra cost on molasses per kilo litre of alcohol (other than the bare cost of molasses at controlled rate), ranged between Rs. 45.24 and Rs. 88.63 with the exception of two units, where it was Rs. 4.24 and Rs. 10.47 respectively. In a period of shortage, it is possible that molasses might have been obtained even from far off places. Even so, as per actual data collected by our Cost Accounts Officers, the maximum incidence of the extra charges on purchased molasses (including the sales tax), was Rs. 83.63 per kilo litre of rectified spirit. There is however evidence to show that at least in one case, the user industry has been charged, on the ground of actuals being higher, amounts in excess of the prescribed ceiling of Rs.150/per kilo litre, by way of extra transport cost of molasses and other similar permissible additions. The fact that the supplier in this particular case happened to be a Government distillery makes the position, if anything, even worse!

- 33.2.5. Chemicals.—As is known, the sugars available in the molasses yield alcohol when subjected to fermentation by yeast. In the process of manufacture of alcohol, molasses is diluted to the required strength and before treating diluted molasses with yeast for fermentation, some quantity of sulphuric acid is added to keep the pH value at a level at which harmful micro-organisms may not grow. Also, for providing nutrient for the yeast, ammoninium sulphate or other nitrogenous substances are added. We notice that there is a wide divergence in the use of chemicals between the different units. Various reasons were attributed for these variations.
- 33.2.6. Power and Fuel.—The power and fuel group is, by and large, the single largest item of cost in the manufacture of alcohol. The items under this head comprise electricity, steam and water in which steam is the major item. Amongst the finally costed units, we have eight attached distilleries and two independent ones. In an attached distillery during the sugar season, steam and power are supplied from the sugar factory, though sometimes steam is supplemented by having extra boilers for the distilleries. Also some of the overheads are common. It, therefore, becomes necessary to allocate the cost of common services applicable to the

distillery when it is an attached one, particularly the quantities and values of steam and electricity. None of the costed units has evolved any system by which these services could be easily apportioned between the various activities. For a number of units regular data on the production and consumption of steam and and electricity were not available. Even in those cases, where electricity was self-generated, estimates could not be obtained in respect of the allocation of fuel expenses between steam and electricity. Six of the units costed purchase electricity, two generate their own, one uses electricity supplied from the sugar factory. while one other unit purchases a part of the electricity, obtains a part from the sugar unit and gets the rest from its own generation. One unit generates electricity mostly by use of coal, but sometimes also by use of diesel oil. While bagasse is the main fuel for the supply of steam from the sugar factory, the fuel used for steam raised from own boilers of the distilleries is coal. Two independent distilleries use only coal for raising steam. Amongst the attached distilleries, three units do not get any steam from the attached sugar factories but raise it from their own boilers by use of coal. So also does another, though it uses bagasse from the sugar factory. It, however, supplements the sugar factory bagasse by furnace oil. Two units obtain their requirement of steam from the sugar factories during the season but in the off-season, raise it by use of coal. Two other units, though getting their requirements of steam generally during the season from the sugar factory, in the off-season, as also sometimes during the season, supplement their steam supply by their own boilers, one using furnace oil and the other firewood. The following Table shows the incidence of electricity, steam and water, their source of supply and the type of fuel consumed, for the individual costed units.

As stated earlier, the major item of cost under power and fuel is that of steam. While the weighted average cost of all units for steam comes to Rs. 57.0 per kilo litre, the range of incidence varies from Rs. 28.54 to Rs. 96.61. We find that in the case of units which get their fuel from the sugar units, the costs are generally lower. This is because in evaluating the cost of bagasse used for raising steam its cost has been generally taken as equivalent to the pit head price of coal equivalent of bagasse. The A. I. D. A., however, has urged that the cost of coal equivalent of bagasse should be taken at the assumed delivered price of coal, including transport charges. We had considered this point carefully at the time of our last inquiry and had come to the conclusion that acceptance of this thesis would, apart from being unrealistic, tend unjustifiably to raise the cost of industrial alcohol. We do not see any reason now to change that view.

[Rs. per kilo litre of rectified spirit (106%)] Source of supply and the incidence of electricity, steam and water and the type of fuel consumed TABLE 28

į.	TOTAL	58.43	42.56	98.40	62.90	46.04	77.36	19.96	60.92	72.69	64.01
	WATER	:	. :	:	:	0.29	7.04	:	:	1.71	5.35
	Total	53.58	28.54	87.10	61.89	30.98	41.42	96·61	48.42	61.86	54.37
	Fire- wood	:	:	:	:	;	;	:	15.35	:	•
STEAM	Furnace oil	A CONTRACTOR OF THE PARTY OF TH				2.40	:	:	2.57	14.87	:
S	Coal		13.74	87.10	61-89	4.40	41.42	*96.61	:	:	54.37
	Supplied Lfrom sugar factory	@53-58	14.80		ľ	24.18	:	:	30.50	46.99	:
	Total	4.85	14.12	11.30	1.01	14.77	28.90	:	27-67	9.12	4.29
ICITY	Owa	:	10.68	:	:	:	:	:	:	:	4.29
ELECTRICITY	Supplied from sugar factory	:	0.50	:	:	:	:	:	27.67	:	:
	Purcha-	4.85	2.94	11.30	1.01	14.77	28.90	:	:	9.12	- :-
	Š.	-	7	e	4	5	9.	L	00	•	10

\*Inclusive of coal for electricity.

@Inclusive of coal used during off-season.

- 33.2.7. Other Conversion Charges.—These have been grouped broadly into the following categories;
  - (a) Wages, salaries and company's contributions towards provident funds, inclusive of the salaries of common staff apportioned to the distillery activities when the manufacture of alcohol forms one of the activities of the company;
  - (b) Payments made towards the establishment of excise staff stationed at the distilleries;
  - (c) Consumable stores and repairs and maintenance of plant and buildings; and
  - (d) Other miscellaneous overheads.

The incidence of each of the above elements of costs has been shown in Table 25 under the respective heads. Here also, there are wide variations in costs. The contributing factors are the capacity of the unit and its utilisation. The larger the capacity of the distillery the more economically it operates, since, normally, the capacity of the plant should not very much affect the number of men employed. Except for labour for handling molasses and finished product, the other salaries and wages are fixed, a major part of stores and repairs and maintenance of plant and building are also fixed, as also the overheads. The total incidence of cost under the four elements are pronounced in the case of four units. In the case of three of these units the utilisation of capacities had been less than 40 per cent. In the case of the other unit the higher element of cost was due mainly to repairs and maintenance. There is also a small unit with an annual capacity of less than 1,500 kilo litres.

- 33.2.8. Depreciation.—Depreciation has been calculated at the normal income tax rates on the written down value basis. This is not only a fixed element but is also dependent on the age of the plant and on whether the distillery is an attached one or independent. An independent distillery will have no economies of common facilities, such as housing, office buildings and molasses storage tanks. The incidence of depreciation is highest in the case of two units, both of which are independent distilleries. They are also only about eight to ten years old.
- 33.3. Credits.—Credit is taken in respect of sale value of fuel oil, a by-product, and other miscellaneous receipts like sale of scrap, recovery of house rents etc. These receipts have been adjusted in the other overheads and only the net amounts have been shown under that head.

34.1. The actual costs worked out by our Cost Accounts Offi34. Estimates of cost of production and fair ex-works price for to the respective costed units and they were asked to forward their comments, if any, on those costs. We had individually invited each of the costed units to appear before us to discuss the actual costs and also the probable costs for the future. Out of the 14 units costed, representatives of only six appeared before us, four of the units expressed their inability to attend and the rest did not care to reply. In framing our estimate of future costs we have, however, taken into consideration the written evidence tendered before us and the information we were able to gather from the representatives of the costed units who attended the cost discussions. The basis

of the estimates is discussed in the following paragraphs.

- 34.2.1. Production.—Production of alcohol is closely linked with the availability of its main raw material, namely, molasses, which in turn depends on the sugar cane supplied to the sugar factories. It is, therefore, necessary in this context to know the trends in the sugar industry. The Indian Sugar Mills Association, representing the main suppliers of raw materials, has stated that it is difficult for it to estimate correctly the production of sugar for the next three years. The A.I.D.A. has said that it is extremely difficult to make any estimate of production of molasses and consequently. of alcohol. However, it has furnished some data on the availability of molasses subject to certain factors such as good weather, timely rains, etc. and has urged in its Memorandum on the cost structure of Alcohol that looking to the past record of the sugar industry which has been facing recurring cycles of surpluses and shortages of sugar cane, it would not be realistic to take utilisation of capacity at higher than 70 per cent for the next three years. There is no doubt that the trend in sugar production is upwards. As against the initial estimate of 28 lakh tonnes of sugar for the 1968-69 season. the actual production was 35.59 lakh tonnes. Expansion of sugar capacities has already been sanctioned and the targets of production fixed. Taking all the above factors into consideration, we have estimated that the average production for the country during the next three years may be taken at 70 per cent of the installed capacity and have accordingly projected our estimate of costs for the future.
- 34.2.2. Molasses.—The proportion of consumption of different grades of molasses have been assumed to be the same as obtained in the actual period and in respect of prices the controlled rates applicable in different States have been adopted. During

the actual period, the overall efficiencies of the units were very low and it was explained that generally such lower efficiencies were due to the inferior grades of molasses supplied though payments were made as for better grades. With the improvement in the availability of molasses and greater care which the distillers are expected to exercise in its purchase we hope the quality of molasses will now improve. With this expectation we have, in our estimates, assumed for all the distillers a minimum of 82.5 per cent overall efficiency. However, for those whose overall efficiencies during the actual period were higher than the minimum now assumed by us, we have kept them at the same levels for the future also. We have provided for evaporation and transit losses at an average of two per cent on the molasses expected to be consumed.

- 34.2.3.—Chemicals—Quantities of chemicals consumed have been assumed to be more or less the same as in the costed period but these have been valued at the latest prices.
- 34.2.4. Power and fuel.—This head comprises mainly the items of electricity and steam. As stated earlier electricity is purchased by the majority of the units costed. In the future estimates we have assumed the costs in respect of electricity to be the same, as no variations in rates have been reported, except that the incidence has been adjusted to the improved overall efficiency wherever assumed. As regards fuel for steam we have first made the adjustments in the consumption of the units for the improved efficiencies and then applied the latest available rates to the quantities so arrived. As regards the price for bagasse, we have taken it at the pit head price of coal after converting the bagasse into equivalent coal by assuming a factor of 0.333. In one of the units the consumption of coal was abnormal and, therefore, in respect of that unit its consumption has been restricted to the weighted average of the other units. Similar adjustment has been made in the case of one more unit where the quantity of fuel consumption was not known.
  - 34.2.5. Other conversion charges.—In respect of wages and salaries, provision has been made for normal grade increments as per the scales applicable to the employees of the respective units as also the minimum bonus of 4 per cent payable under the Bonus Act. Distilleries attached to sugar units normally pay their dearness allowance in accordance with the Sugar Wage Board Award. The increase due to this element has been duly provided. On 16th August, 1968, an agreement was arrived at in the Conciliation Proceedings under the U. P. Indu trial Disputes Act as

- between the A. I. D. A. and the U. P. Distillery Workers' Federation repsesenting certain of the distilleries in U. P. which had the effect of increasing the wages of the workmen generally by about Rs. 20 per month. The anticipated increase in respect of these enhanced wages has also been taken into account in framing our estimates. Suitable provision has been made for any increase in expenses to be incurred on repairs and maintenance and other miscellaneous overheads. The anticipated credits in respect of fusel oil and other miscellaneous receipts have been adjusted the other overheads and only the net incidence shown in respect of the overhead element. Known additions to fixed assets which had taken place after the costed period and the generally anticipated edditions during the next three years have been taken into consideration and depreciation has been provided on the existing net block as also the anticipated additions at normal incometax rates.
- 34.2.6. Estimated costs.—The costs estimated on the above basis in respect of each of the units and their weighted averages have been exhibited in the Table on the next page.
- 34.3.1. Sales tax, transport and other handling charges purchased molasses.—The estimated costs shown in the following table are the ex-works costs, but they exclude sales tax, transport and other handling charges to be incurred on purchased molasses. Under the present system of price control, transport and other charges payable on purchased molasses are to be passed on to the consumers of alcohol. The incidence of these charges is being calculated on the basis of the actual expenses incurred in the previous year. A ceiling of Rs. 150 per kilo litre of alcohol has been laid down at present. The chargeable amount under this item has been a matter of continuous dispute with the consumers of alcohol, though under the Ethyl Alcohol (Price Control) Order 1966 (as amended upto 1st August, 1968), power has been given to the Excise Commissioner of the state, where the particular distillery is located, to decide the issue. The sales tax and transport charges on molasses will be uncertain factors, since they will depend on the availability and allotment of molasses made by the authorities to the distilleries and the distance over which it is transported. However we have seen that amongst the costed units during the year 1966-67 which is admittedly a period of shortage of molasses, the maximum incidence of sales tax, transport and handling charges has been Rs. 88.63 per kilo litre. We are, therefore, of the view that the present ceiling should be brought down and we recommend it at Rs. 100 per kilo litre of alcohol (100%). This will also help in economising the costs in that future allotments of molasses will be made more judiciously from as short a distance as possible and

TABLE 29

Estimated cost per kilo litre of Rectified Spirit (100%) for future.

ď	Estimated took per Ano title of Actifred Spirit (100 %) for fainter	cost per	711 0114	e de la companya de l	r naihina	r) mndc	16/00	) hite		s. per	(Rs. per K.L.)	
SI. No.		7	6	4	s	9		00	6	01	Weighted average of all units	
1. MATERIALS (a) Molasses (excluding sales tax, transport, etc.)	26.59	l .	26.57 27.06 26.22	26.22	27.06	27.06	26.22	26.10	26.10 26.64 24.00 26.18	24.00	26.18	
(b) Chemicals	2.67	4.17	2.18	2.18 1.81	4.30	3.35	6.22	2.54	4.94	3.53	3.15	-,
TOTAL OF (1)	29.26	30.74	29.26 30.74 29.24 28.03 31.36	28.03	31.36	30-41	32.44	28.64	31.58	27.53	32-44 28-64 31-58 27-53 29-33	
2. POWER AND FUEL AND WATER		42.75	64.67 42.75 102.06 69.50 39.13 81.95 49.17 66.33 33.09 65.61 61.92	69.50	39-13	81.95	49.17	66.33	33.09	63-61	61.92	
3. SALARIES AND WAGES (including minimum bonds)	17.70	24.78	54.78 50.68 26.28 30.09 54.18 69.09 21.16 26.85 28.54	26.28	30.09	84.18	<b>60</b> ·09	21.16	26.85		29.55	
4. REPARTS, MAIN- TENANCE AND CONSUMABLE STORES	20.22	14.92	20.22 14.92 23.13 16.89 18.83 10.99 53.28	16.89	18.83	10.99	53.28	7.19	7.19 10.33 14.28 18.56	14.28	18.56	

		ì				
57.CT	63.35	15.96	170-5			
18.00	60.82 63.35	6.25 11.25 26.93 10.65 17.81 17.34 9.16 17.63 31.14 33.56 15.96	l 147·34 136·45 244·43 168·00 148·74 204·56 254·65 155·83 152·39 187·52 170·56		5.30	4.529
19.40	56.58	31 · 14	152-39		6.50 5.30	3-896 4-100 4-529
14.88	43.23	17-63	155.83		02.9	3.896
9 69 41 51 14 88 19 40 18 00 15 24	47.16 51.71 86.20 59.82 60.44 74.86 163.88 43.23 56.58	9.16	254.65		6.30	4.029 4.151 4.039 4.162 4.039 4.039 4.162
69.6	74.86	17.34	204-56	3	02.9	4.039
11.52	60.44	17.81	148.74		02.9	4.039
16.65	59.82	10.65	168.00		6.30	4 · 162
7.01 12.39 16.65 11.52	86.20	26.93	244.43		01.9	4.039
7.01	51.71	11.25	136.45		6.40	4-151
9.24	47·16	6.25	147.34		09.9	4.029
Sundry credits)	TOTAL OF 3 TO 5.	6. DEPRECIATION	COST OF PRODUCTION EX-WORKS (Excluding additional charges on purchased molasses)	Molasses-	(a) Rate per tonne(Rs.) 6.60	(b) Qaty per K/litre (Toones)

the units will try to obtain them through as cheap a mode of transport as possible. To make sure that only the actual expenses incurred by way of sales tax, transport and other handling charges are claimed and also to avoid any disupte, we further recommend that within the period of three months from the last day of the accounting year, each distiller should file with the Excise Commissioner of the State where the particular distillery is located a certificate obtained from a qualified auditor, giving details of the quantities of molasses purchased from each source, the sales tax paid, transport charges incurred thereon and any other charges specifically incurred for the transport of molasses, and their average incidence per tonne of molasses consumed during that year. Since the consumption of molasses varies from unit to unit, for calculating the final average incidence of the above charges per kilo litre of alcohol, the consumption of molasses should be taken at a standard quantity of 4.1. tonnes per kilo litre (100%) of alcohol produced. This extra price will be in force for the next twelve months, that is, till the end of third month after the close of the succeeding financial year of the company.

- 34.3.2. Payment for excise staff.—The ex-works costs estimated by us do not include also the payments to be made to excise staff posted at the distilleries. We notice that payment to excise staff is not made by all distilleries nor is its incidence uniform. We, therefore, feel that it would be better to leave this out from our estimates and recommend that reimbursement be made to the distilleries on the basis of actual payments in the previous year. For calculating the element of this cost a similar procedure as outlined in paragraph 34.3.1 above should be followed, with the proviso that for finding out the incidence per kilo litre the production assumed for each distillery should be as indicated in Appendix 13 irrespective of what production had been actually achieved in the previous year.
- 34.3.3. Additional charges for the use of furnace oil.—At present the distillers who use furnace oil are entitled to an extra price on that account. While remitting the case to us for consideration, Government have requested us to enquire and recommend if there is any case for increase in the additional charges to be loaded on to the basic price of alcohol for the use of furnace oil. Amongst the costed units, three use furnace oil in addition to other fuels and while estimating the average cost for the industry we have allowed the charge in respect of this type of fuel. The proportion of the cost of fuel oil in the total cost of fuel is about 20 per cent in one unit and negligible in two others. The special element of extra price was introduced when there were difficulties in the

procurement of coal and its transport. Such a situation does not exist now when the supply position of coal has greatly improved. Also, when costs could be brought down by use of alternative materials, which are readily available, without any detriment to the quality of the product manufactured, an expensive method should not be encouraged. We noticed that in one of the units in West Bengal the entire generation of steam was by furnace oil though a cheaper material, viz., coal, could have been used with definite advantage. No explanation was forthcoming from that unit as to why it preferred to use furnace oil instead of coal. For these reasons we recommend that this extra charges need not be continued any further.

- 34.4. Fair return to the industry.—The A. I. D. A. has asked for a return of 20 per cent on the capital employed. We have carefully considered this request. At the time of our last inquiry we had allowed a return of 15 per cent from which the industry's obligation for minimum bonus had also to be made. This time we have slightly departed from our previous practice and have allowed the minimum bonus payable under the Bonus Ac: as an item of cost and have included it in the wages and salaries. Exclusive of the minimum bonus which works to ½ per cent on the total cost, we have now allowed a return of 15 per cent. We are of the opinion that with prudent management and purposive efforts in the direction of cost reduction it should be possible for the industry to create surpluses and meet its commitments under inferest borrowed capital, income-tax, dividend on preference shares, if any, and still leave a residue to declare a reasonable dividend on equity share capital and provide reasonable reserves. The return calculated at the rate of 15 per cent on employed capital works out to Rs. 35.83 per kilo lifre, employed capital having been computed as equivalent to the average net fixed assets plus working capital at 5.5 months' cost of production (excluding depreciation).
- 34.5. Provision for storage of molasses and alcohol and effluent treatment.—As stated in paragraph 33.2.4.1, the industry attributed its lower efficiency to the poor quality of molasses it received. On the other hand the sugar industry maintained that the molasses it produced was of the standard quality, but because of lack of proper storage facilities the quality gets deteriorated. It has also been argued before us that the burden of proper storage of molasses should not be put entirely on the sugar industry, but a part of that burden should also be shared by the distilleries as it is very much in their interest also. A balance has to be struck between the two interests, and we are of the view that both the alcohol

and sugar industries should share the burden in some equitable proportion for creating proper storage facilities to keep up the auality of the molasses. It has also been represented to us that some of the distilleries at times have to stop production owing to nonavailability of storage space for alcohol, whose distribution is strictly controlled by Government. While we have no doubt that both the State Governments and the consumers to whom allotments of acohol are made will take due care for timely distribution and lifting some additional storage space will help to improve the production of alcohol. We therefore, think that the distillers, in their enlightened self-interest, should take proper steps to provide adequate storage facilities for molasses and alcohol in their premises. With this end in view we consider an allowance should be provided in the fair selling price to be recommended by us as an incentive for the same. Further, of late it appears that the State Governments have been pressing the distilleries to bring down the BOD value of the effluent. It has been reported that efforts are being made to find a suitable process for treatment of such effluent. This also may require additional funds. However, there are no reliable data on the capital cost that will be incurred for providing satisfactory storage capacity for molasses and alcohol. During the public inquiry it was hinted by one of the participants that the current impact on capital cost of storage for molasses and alcohol will together come to something like Rs. 24/- per kilo litre of alcohol. We also understand from A. I. D. A. that the capital cost of a storage tank of 32,000 quintal capacity of molasses would be about Rs. 2 lakhs and that for alcohol storage capacity of 454 Hecto litres will come to Rs. 10,000. Providing for depreciation at 9 per cent on the written down value and return at 15 per cent. the combined incidence of these factors apportionable to the distitleries will be Rs. 26/- per kilo litre of alcohol. It must be added that these estimates are not based on any firm experience but on broad anticipations. In any case since storage facilities to be provided by the distilleries are in the nature of prospective additions to their capital assets, it would not be fair to ask the consumers to bear the capital expenditure on this account. At the same time it seems to us appropriate to make some token anticipatory provisions for depreciation and return on capital not only for those units which have already set up such storage facilities but also offer an initial incentive to the other distilleries to follow suit. On the hasis that storage facilities in respect of molasses will be shared nartly by the sugar factories and partly by the distilleries and recognising the existing storage conditions in the distilleries, we have added a figure of Rs. 6 per kilo litre of alcohol to the estimate of the future cost. This amount should however be funded separately and utilised under the supervision of an appropriate authority, such as.

the Molasses Controller exclusively for the construction of storage tanks. The distilleries have also to incur some expenditure on effluent disposal and research projects in this behalf. We have provided an amount of Rs. 1.50 per kilo litre of alcohol on this account.

- 34.6. Loss due to evaporation or spillage.—Some quantity of rectified spirit may be lost either through evaporation or spillage. Though it is not possible to estimate such losses exactly, we consider that an allowance of 0.5 per cent for such losses on the production estimated by us will meet the needs of the case. This allowance would work out to Rs. 1.07 per kilo litre and we propose to include it in the final fair price to be recommended.
- 34.7.1. Fair price to the industry.—The final price per kilo litre of rectified spirit (100%) based on the weighted average of the ten units and after adding the allowances for storage space and effluent treatment as stated in paragraph 34.5 above and providing for loss by evaporation or spillage works out as follows:—

			9				Rs./Kilo litre
Ex-works cost (as per Table 29)		444				•	170.56
Provision for storage of molasses treatment.	and.	alcoho	l and	for	effi	uent	7.50
Return on capital employed .		200					35.83
Provision for loss through evapora	tion (	or spill	age @	0.5%	6	•	213.89 1.07
Fair ex-works price							214.96
			Say	Rs.			215

We recommend that the fair ex-works price of Rs. 215 per kilo litre of rectified spirit (100%) should be made applicable for the next two fiscal years, that is, upto 31st March 1972.

34.7.2. The fair ex-works price of Rs. 215 per kilo litre of rectified spirit (100%) recommended by us is based on the weighted average of the units whose costs have been finally adopted by us. When an average of any kind is considered to represent a group, one has to also find out the extent to which each unit in that group varies from the average. In this particular case, we found that in

some cases the extent of deviation of individual costs from their average was large. We, therefore, undertook a further exercise by obtaining separate averages by grouping units into two categories, the dividing line being at the economic size of the capacity we have adopted (paragraph 9.3), that is, 6,000 kilo litres per annum. We found that the average cost of the group representing smaller capacities tended to be higher than that of the average cost of the group with higher capacities. This difference worked out to about Rs. 60 per kilo litre. Moreover in any scheme of price fixation the marginal units should generally be able to break even so that they may continue to stay in business and try and come up to the standard of other units after a reasonable period. For the above reasons we feel that for a limited period, the group with smaller capacities should be compensated with supplementary addition to price. We, therefore, recommend that while the industry's fair ex-works price should be Rs. 215 per kilo litre, units with a capacity of 6,000 kilo litres and below per annum should be allowed an extra price of Rs. 25 per kilo litre that is, Rs. 240 per kilo litre for a period of two years ending on 31st March 1972, after which date that concession should be withdrawn. From the consumers' point of view. since an uniform price does not in practice prevail because of the other permissible additions by way of transport cost of molasses, etc. the proposed addition, (which is only a fraction of the existing ceiling on this account of Rs. 150 per kilo litre), is not likely to prove unduly onerous especially in view of the greater security of supply this is likely to entail.

34.8. Additional charges for denatured spirit.—The prices recommended by us in paragraph 34.7 are for rectified spirit. Mixing of denaturants and preparation of denatured spirit involve some extra cost. Though attempts were made by our Cost Accounts Officers to assess the cost of such activities precisely it was not possible to do so, since none of the units costed maintained separate data in this regard. Hence, while working out the actual cost of rectified spirit, the additional Rs. 5/- per kilo litre when bought or Rs. 2 per kilo litre when provided by the purchasers themselves was treated as a differential price and depending on the quantities of denatured spirits manufactured, the differential applicable in respect of these costs were adjusted in the total cost so that the costs worked out represented the basic cost for rectified spirit. Therefore, in fact, the existing extra price of Rs. 5 per kilo litre for denatured spirit, over and above that fixed for rectified spirit, in addition to the actual cost of denaturants used, will stand and we recommend that it be continued for the next price period also. We further recommend that the extra price of Rs. 5 per kilo litre, however, be reduced to Rs. 2 per kilo litre, when the denaturants are supplied by the purchasers themselves.

- 34.9. Fair price for absolute alcohol—None of the units costed manufactured absolute alcohol in 1966-67. Our information is that no distillery is now producing absolute alcohol and if any absolute alcohol is produced at all, the quantity is insignificant. Nevertheless, it is necessary for us to fix a price for this type of alcohol also. In the last inquiry, we had assessed the differential of the price for absolute alcohol at about 10 per cent higher than that of rectified spirit. We recommend that the same differential be maintained now. On that basis, the price for absolute alcohol (100%) would work out to Rs. 237 per kilo litre and this will be the price chargeable by any unit if and when it produces and markets absolute alcohol within the next two years, with the proviso that when such alcohol is manufactured by units which are entitled to an extra price of Rs. 25 per kilo litre, the same differential should be made applicable to them over and above Rs. 237 recommended by us for the industry.
- 34.10. Escalation for variation in the controlled price of molasses.—In paragraph 24.1.6 we have dealt at length with the prices of molasses. We have also stated that the problem has to be looked at both from the point of view of the manufacturer as well as of the consumer. We think it necessary to provide an escalation clause for any variation in the controlled prices of molasses, should Government decide about it at any time during the price period recommended by us. By and large, most of the units consume Grade I molasses in a substantial proportion. Hence, for the purpose of escalation, we would adopt the price of Grade I molasses and recommend that for every one rupee variation in the price per tonne of such molasses, the price of rectified spirit (100%) may be varied by Rs. 4.43 per kilo litre.

#### CHAPTER XI

# CONCLUSION, RECOMMENDATIONS AND ACKNOWLEDGEMENTS

Our conclusions and recommendations are summarised below:

35.1. Since the

35. Summary of conclusions and recommendations Government of India have de-licensed the industrial alcohol industry, the capacity for which the State Governments have issued licences should be adopted as the licensed capacity. We, however, recommend that a technical survey of installed capacity

of the industry should be undertaken at an early date with a view to determining the actual position of the extent of under utilisation.

(Paragraph 7.2.)

35.2. We feel that before additional licences are issued, the uneconomic units should be helped to increase their capacity to atleast the level of 4,500 kilo litres in each case. We would suggest that as a working basis, until a technical reassessment of the issues involved in arriving at the level of the economic size is made, a size intermediate between the original figure of 4,500 kilo litres and 8,000 kilo litres which has been suggested by a number of interests, i.e., an installed capacity of 6,000 kilo litres per annum in round figures, may be adopted.

(Paragraphs 9.2 and 9.3)

35.3. The case for the preparation of a long range plan for the development of the industry including inter alia an overall estimate of demand for fermentation alcohol taking into account on the one hand the possible substitution by ethylene and on the other the requirements for potable purposes is more pressing than ever today. After this is done, the question of further expansion of the existing units or setting up of new units can be taken up. It may also become necessary for Government to consider the necessary steps for forestalling possible imbalances and unhealthy competition in the future growth of the fermentation alcohol industry.

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(Paragraphs 10.3 and 13.11)

35.4. The apprehension that the present demand for the fermentation alcohol may be replaced by naphtha based alcohol in the immediate future appears to us to be unwarranted.

(Paragraph 12.8)

35.5. The overall demand for industrial alcohol is estimated at 310,000 kilo litres for 1969, 320,000 kilo litres for 1970 and 330,000 kilo litres for 1971.

(Paragraph 13.6)

35.6. When the supply position of alcohol improves, the industry may get in touch with the Government and seek facilities needed for building up an export market. We hope Government will bear in mind the various suggestions made by the industry for increasing exports of alcohol, while formulating export promotion measures, if and when there is surplus of indigenous alcohol. We suggest that export of molasses by sugar factories at the expense of the alcohol industry should be discouraged.

(Paragraphs 16.2.1 and 16.2.2)

35.7. Considering that the present practice of the Indian producers and the trade is to record alcohol output and transactions by volume in kilo litres and the controlled prices also are fixed in these terms, it would be helpful for purposes of comparison with imports (or exports), if these are also shown by volume in kilo litres in the Monthly Statistics of the Foreign Trade of India, published by the Director General of Commercial Intelligence and Statistics, who now shows these figures only by weight (in kgs.).

(Paragraph 16.2.3)

35.8. We would recommend that the controls on alcohol especially in respect of inter-State movement should be rationalised with a view to mitigating the hardships felt by producers and consumers. If considered necessary, a Committee consisting of the representatives of State and Central Excise authorities, consumers and producers may be constituted at an early date to examine the question of controls on alcohol in depth and evolve suitable remedial measures.

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(Paragraph 17.2.2)

35.9. Some positive steps should be taken to streamline the present system of controlled distribution of alcohol for ensuring regular supplies to consumers. We think that at least for the established units, there should be a basic quota from predetermined sources as near to them as practicable. If the production

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of alcohol improves, they can be given additional quantities. Details of quotas could be worked out by the officials of the State Governments in consultation with the Centre and placed before the next Annual Excise Ministers' Conference for consideration and decision. Timely issue of permits by the State Governments for lifting the alcohol produced by distilleries is also important and we hope that difficulties will be sorted out by the distilleries and their Associations directly with the State Governments concerned.

(Paragraphs 8.5, 18.2 and 18.4)

35.10. As an incentive to distilleries, 15 or 20 per cent of their production of alcohol may be left free of price control and the remaining 85 or 80 per cent made subject to allocations by Government. It may be added that distilleries which produce alcohol from a raw material other than sugar factory molasses should be able to sell that alcohol freely.

(Paragraph 18.6)

35.11. We would recommend that in order to obviate heavy demurrage charges which needlessly inflate the cost of alcohol, the Railway Board should consider how best they can regulate the supply of wagons in good time ensuring, on the one hand, that the distillery industry is not faced with frequent shortages and on the other, too many wagons are not allotted when they are not needed or when they cannot be filled simultaneously.

(Paragraph 19.3)

35.12. We understand that many producers have responded satisfactorily to the I. S. I. specifications. It is hoped that all the remaining manufacturers will also take early steps to obtain operating licences in the interest of maintenance of the standard and quality. The other agencies of the Government also should see that the standards are effectively implemented by the industry.

(Paragraph 20)

35.13. Alcohol is used mainly by industrial consumers, any deterioration in quality affects these users. It is, therefore, necessary for the manufacturers to note the complaints made by the consumers and take quick and effective remedial action.

(Paragraph 21.3)

35.14. In order to effect the technical improvements suggested by the Director, National Sugar Institute, in the matter of ensuring efficiency and improvement in the working conditions

of distilleries (paragraph 22.1.2), it would be necessary for the alcohol industry to engage trained and technically qualified persons, introduce a consultancy-cum-extension service and establish an Alcohol Technologists Association. This Association can conceivably play an important role in this direction by organising seminars/technical discussions between the distilleries so as to facilitate exchange of knowledge and experience in respect of technological improvements and generate better cost consciousness among the distilleries. This would, in the long run, be in the interest of not only of users of alcohol but also of the distillery industry itself.

(Paragraph 22.1.3)

35.15. We are of the view that the industry needs to devote more attention to better quality control and for the improvement of facilities for research and development. We further suggest that the A. I. D. A. should continue to collect information about technical improvements and developments abroad and pass it on to the distilleries for their benefits.

(Paragraph 23,3)

35.16. On purely economic grounds, we feel that the manufacturers of industrial alcohol should not suffer for want of molasses and all necessary steps should, therefore, be taken to maintain an uninterrupted flow of molasses to them on a priority basis. The general consensus of opinion is that there is no point in setting up additional capacity in States which have no surplus molasses. It is feared that location of new distilleries without taking due note of this fact will only lead to further difficulties for the industry. We suggest that Molasses Controllers in State Governments should consider the points made by the A. I. D. A. and take necessary steps to increase the availability of molasses for distillation. The A. I. D. A. should also take up the question of rationalisation of controls on molasses with the respective State Governments with a view to plugging the loopholes in the operation of controls.

(Paragraphs 8.6, 24.1.2.4., 24.1.4.2 and 24.1.4.7.)

35.17. The question of linking up sugar factories to particular distilleries on a permanent basis needs to be explored with a view to rationalising the transport costs. We have already suggested in paragraph 18.4 a system of basic and variable quotas for consumers of alcohol. Such a system could be extended to the distribution of molasses also in view of the fact that most of the consumers and producers of molasses are more or less within

easy reach of each other. A basic quota of atleast 50 per cent of the requirements of molasses from specific sugar factories should be issued straightaway to each distillery and the balance of requirements met on an equitable basis depending on the actual performance of sugar factories. We would suggest that the release of 20 per cent of the total supply of molasses for free sale may be considered sympathetically.

(Paragraphs 24.1.4.3, 24.1.4.4 and 24.1.4.6)

35.18. We strongly support the proposal for establishing a fully representative Central Molasses Board and would recommend that such a Board should be set up at a very early date. Its composition should, however, be sufficiently compact to reach expeditious conclusions and decisions in respect of (a) the problems of inter-State movement and co-ordination as between surplus and deficit States, (b) the linking up of distilleries and sugar factories, with a view to avoiding cross-haulage so as to lower the transport costs, and (c) complaints received on quality.

(Paragraph 24.1.4.8)

35.19. In the interest of proper utilisation, preservation and avoidance of wastage of this essential national product, ways and means have to be devised so that the molasses produced is stored in proper condition before it is lifted by the distilleries. A way out should be found whereby the sugar industry could construct concrete or steel storage tanks in the place of the present kutcha storage to prevent both leakage and wastage of molasses.

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(Paragraph 24.1.5.3)

35.20. While sugar factories should handle molasses only for the duration of the season, the distilleries must provide storage for the remaining period to ensure that sugar factories are not burdened with stocks of molasses beyond the period of two to three months after the end of the season. Since the season lasts for only a part of the year, storage for a part of the total production of molasses should in equity, be provided by the distilleries. It may be added that Central Molasses Board when constituted could also look into the matter with the assistance, if need be, of the Central Ware-housing Corporation and similar other interests.

(Paragraph 24.1.5.3)

35.21. There are proposals from certain States to bring khand-sari molasses under control. In the context of this development, ti would be necessary and desirable to make adequate arrangements

for the collection of data on actual production and sales as well as prices of khandsari molasses on a regular basis.

(Paragraph 24.1.7.3)

35.22. We feel that a fresh effort should be made to persuade the State Governments to reconsider the question of replacing miscellaneous State levies by a suitable excise duty uniformly applicable in all the States.

(Paragraph 27.2.3)

35.23. With a view to helping the export industries, we recommend that such industrial consumers of alcohol who are actually using it for the production of goods for export, should be given preference in the allotment of the indigenous supplies rather than of the imported alcohol whose price is more than three times the controlled price of indigenous alcohol.

(Paragraphs 28.3.2 and 29.2)

35.24. We reiterate the recommendation made by us in paragraph 10.7 of our last Report (1965) that distillers should exercise their rights under the rules for the control of molasses and not accept diluted molasses, nor pay any higher price than that fixed by the Price Control Order for it.

(Paragraph 33.2.4.1.)

35.25. We are of the view that the present ceiling of Rs. 150 per kilo litre of alcohol by way of incidence of transport and other charges payable on purchased molasses should be brought down and we recommend refixation at Rs. 100 per kilo litre of alcohol (100%). To make sure that only the actual expenses incurred by way of sales tax, transport and other handling charges are claimed and also to avoid any dispute, we further recommend that within the period of three months from the last day of the accounting year, each distiller should file with the Excise Commissioner of the State, where the particular distillery is located, a certificate obtained from a qualified auditor, giving details of the quantities of molasses purchased from each source, the sales tax paid, the transport charges incurred thereon and any other charges specifically incurred for the transport of molasses, and their average incidence per tonne of molasses consumed during that year. The extra price based on actuals within the ceiling of Rs. 100 per kilo litre of alcohol (100%) will remain in force for the subsequent twelve months, that is, till the end of third month after the close of the succeeding financial year of the company.

(Paragraph 34.3.1)

35.26. As the ex-works costs estimated by us do not include the payments to be made to excise staff posted at the distilleries, we recommend that reimbursement be made to the distilleries on the basis of actual payments in the previous year. For reasons given in paragraph 34.3.3, we recommend that the extra charge on account of use of furnace oil need not be continued any further.

(Paragraphs 34.3.2. and 34.3.3)

35.27. It seems to us appropriate to provide for a token incentive to the distilleries to strengthen their storage arrangements. We have, therefore, added a figure of Rs. 6 per kilo litre of alcohol while estimating the future cost. This amount should be funded separately and utilised under the supervision of an appropriate authority, such as, the Molasses Controller, solely for the construction of storage tanks.

(Paragraph 34.5)

35.28. We recommend that the fair ex-works price of rectified spirit (100%) should be fixed at Rs. 215 per kilo litre and made applicable for the next two fiscal years, that is, upto 31st March 1972, but units with a capacity of 6,000 kilo litres and below per annum should be allowed an extra price of Rs. 25 per kilo litre, that is, Rs. 240 per kilo litre for a period of two years ending on 31st March 1972, after which date this concession should be withdrawn. The existing extra price of Rs. 5 per kilo litre for denatured spirit, over and above that fixed for rectified spirit, in addition to the actual cost of denaturants used will stand and we recommend that it be continued for the next price period also. We further recommend that the extra price of Rs. 5 per kilo litre should be reduced to Rs. 2 per kilo litre, when denaturants are supplied by the purchasers themselves.

(Paragraphs 34.7.1 and 34.8)

35.29. We recommend that the differential of the price for absolute alcohol assessed at the last inquiry at about 10 per cent higher than the price of rectified spirit be maintained. On that basis, the price for absolute alcohol (100%) would work out to Rs. 237 per kilo litre and this will be the price chargeable by any unit, if and when it produces and markets absolute alcohol within the next two years, with the proviso that when such absolute alcohol is manufactured by units which are entitled to an extra price of Rs. 25 per kilo litre, the same differential should be made applicable to them over and above Rs. 237 recommended by us for the industry.

(Paragraph 34.9)

35.30. We think it necessary to provide an escalation clause for any variation in the controlled prices of molasses should Government decide about it at any time during the price period recommended by us. By and large, most of the units consume Grade I molasses in a substantial proportion. For the purpose of this escalation, we would adopt the price of Grade I molasses and recommend that for every one rupee variation in the price per tonne of such molasses, the price of rectified spirit (100%) be varied by Rs. 4.43 per kilo litre.

(Paragraph 34.10)

36. Before concluding this Report, we would like to express our thanks to all the manufacturers and Acknowledgements consumers of alcohol and their Associations who furnished the required data, both in reply to the questionnaire issued by us and in the form of oral evidence tendered before us at the public inquiry. We express our gratitude to the Chairman and Members of the Study Group on the Alcohol Industry, who were so good as to come and discuss some of the complex issues with us in Bombay. The Ministry of Petroleum and Chemicals and Mines and Metals (Department of Chemicals), the Directorate General of Technical Development, the Directorate of Sugar and Vanaspati, the concerned State and Central Government Departments gave us valuable assistance in connection with the inquiry. We would also like to express our thanks to Shri N. Krishnan, Chief Cost Accounts Officer, Ministry of Finance for his valuable advice and for sparing services of one of his Cost Accounts Officers. Our thanks are also due in a large measure to our Embassies/High Commissions abroad for the comparative information they had collected and made available to us. We also wish to place on record our appreciation of the hard work put in by the officers and staff engaged on this inquiry.

B. N. BANERJI
Chairman
M. ZAHEER
Member
S. SUBRAMANIAN
Member
F. H. VALLIBHOY
Member

P. V. GUNISHASTRI

Secretary

BOMBAY

Dated 1 24th December, 1969



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# APPENDICES





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#### APPENDIX 1

## (Vide Paragraph 1.2)

# Government reference on the case to the Commission No. 20(3)-Tar/68 Government of India Ministry of Commerce

New Delhi, the 24th April 1968.

To

The Secretary, Tariff Commission, C.G.O. Building, BOMBAY-1.

Subject.—Inquiry into the price structure of alcohol Reference to the Tariff Commission regarding.

#### SIR,

I am directed to refer to the Report (1965) made by the Tariff Commission on the revision of the ceiling prices of alcohol in October, 1965. The recommendations made in the Report in so far as these relate to the fair selling price of alcohol were accepted by Government vide Resolution No. 4(55)/65-Ch.l., dated the 18th July, 1966 and the Ethyl Alcohol (Price Control) Order, 1966.

2. The sugar season 1965-66 (November 1965 to October 1966) was good with the result that there was a glut of molasses/alcohol in the country necessitating substantial exports of the two commodities. The two succeeding sugar seasons 1966-67 and 1967-68 have been bad as is evident from the figures of production of sugar during the last three years shown below:—

Year					Production (lakh tonnes)		
1965-66	•		•	•	•	•	. 35•08
1966-67	•	•	•	•	•	•	21 · 43
1967-68				•	٠		22.0 (estimated)

3. In view of the reduced production of sugar there has been a shortage of molasses for distillation purposes. Government, in the Ministry of Food, Agriculture, Community Development and Co-operation announced in August last, certain measures to step up production of sugar in the country. Even so, according to the estimates made, the shortage of molasses is expected to continue for some time to come.

- 4. During the last sugar season, 1966-67, certain quantities of alcohol were imported to sustain the production of the two main alcohol-based industries viz. Synthetic Rubber and Polyethylene. During the current season 1967-68, imports of more quantities of alcohol and about 10,000 tonnes of molasses have been arranged.
- 5. The All India Distillers' Association and certain individual distillers have represented from time to time that there is a case for upward revision of the selling price of alcohol. Briefly, the reasons urged are—
  - (i) that the assumptions made by the Tariff Commission in respect of utilization of distillery capacity no longer hold good on account of the general shortage of molasses; and
  - (ii) that the cost of production under certain heads taken into account by the Tariff Commission for determining the fair selling prices have gone up since the report was made in October, 1965.
- 7. In view of the position explained, I am to request the Tariff Commission under Section 12(d) of the Tariff Commission Act, 1951 (50 of 1951) to review the price structure of alcohol and furnish its Report/recommendation to Government with particular reference to the following:—
  - (i) whether there is any case for further increase in the price of alcohol and if so, to what extent:
  - (ii) whether it is necessary to continue the present uniform price based on the weighted average on an all-India basis or there should be different prices for different distilleries or group of distilleries:
  - (iii) whether it is feasible to lay down any formula as regards the price fixation based on utilization of capacity;
  - (iv) whether there is any case for increase in the additional clarges to be loaded on to the basic price of alcohol on account of the use of furnace oil and transport of molasses. In view of the shortage of molasses, the distilleries are prepared to liftthis raw material from any distance provided reimbursement of the transport charges is allowed in full; and
  - (v) any other matter which, in the opinion of the Commission, is necessary and useful for determining the fair price of alcohol having regard to the peculiar circumstances of this industry.

Yours faithfully,

(Sd/-) S. BANERJEE.

Deputy Secretary to the Government of India.

#### APPENDIX 2

## (Vide paragraph 3,2)

List of parties to whom the Commission's Questionnaires/Letters were sent and from whom replies/memoranda were received

\*Indicates those who have replied.

#### A. LARGE SCALE PRODUCERS

#### Uttar Pradesh

- 1. Ajudhia Distillery, P.O. Raja-Ka-Sahaspur, Distt. Moradabad.
- 2. Alco Chem Ltd., (Scohara Distillery), Seohara, Distt. Bijnor.
- 3. Allahabad Distilleries Association, Mumfordganj, Allahabad.
- \*4. Captainganj Distillery Ltd., P. O. Captainganj, Distt. Deoria.
- \*5. Carew & Co. Ltd., Rosa, Distt. Shahjahanpur.
- Central Distillery & Chemical Works Ltd., Post Box No. 16, Meerut Cantt.
- 7. Co-operative Co. L.d. (Distillers), Saharanpur.
- \*8. Daurala Sugar Works (Distillery), Daurala, Distt. Meerut.
- 9. Faizabad Distillery, Naka Muzaffara, Faizabad.
- \*10. Hindustan Sugar Mills Ltd., Golagokarannath, Distt. Lakhimpur-Kheri.
- \*11. Kesar Sugar Works Ltd., P. O. Baheri, Distt. Bareilly.
- My'ran Markin Brawstics Ltd., (Lucknow Distillery), P.B. No. 6, Dollygunj, Lucknow.
- \*13. Mohan Meakin Breweries Ltd., Mohan Nagar, Ghaziabad.
- \*14. Modi Distillery, Modinagar.
  - Narang Industries Ltd., P. O. Sugar Factory, Nawabganj, Distt. Gonda.
- \*16. Oudh Sugar Mills Ltd., (Hargaon Distillery), Hargaon, Distt. Sitapur
- \*17. Pilkhani Distillery & Chemical Works, P. B. No. 69, Pilkhani, Distt. Saharanpur.
- \*18. Rampur Distillery & Chemical Co. Ltd., Reh-e-Raza, Rampur
- \*19. Saraya Distillery, P. O. Sardarnagar, Distt. Gorakhpur.

- Shamli Distillery & Chemical Works Ltd., Shamli, Distt. Muzae flarnagar.
- 21. Simbhaoli Distillery Ltd., P. O. Simbhaoli, Distt. Meerut.
- \*22. Sir Shadilal Distillery & Chemical Works, Mansurpur, Distt. Muzaffarnagar.
  - 23, Standard Refinery & Distillery Ltd., P. O. Unnao.
- 24. The British India Corporation Ltd., "Sutherland House", P. B. No. 77, Kanpur.

#### Maharashtra

- \*25. Brihan Maharasntra Sugar Syndicate Ltd., P. O. Shreepur, Distt. Sholapur.
- 26. Government Distillery, Chitali, Distt. Ahmednagar.
- \*27. Kolhapur Sugar Mills Ltd., Kasba Bavada, New Palace, Kolhapur-3.
- Maharashtra Sugar Mills Ltd., Tilaknagar (Distillery), Distt. Ahmednagar.
- \*29. Polychem Ltd., Alcohol Distillery, Nira, Distt. Poona.
- 30. Shetkari Sahakari Sakhar Karkhana Ltd., P. O. Sangli. (Rly. Stn. Madhaynagar).
- 31. Somaiya Organo Chemicals Ltd., (Sakarwadi Distillery), Via Kanhegaon (C. Rly.), Sakarwadi, Distt. Ahmednagar.
- \*32. Walchandnagar Industries Ltd., Walchandnagar, Distt. Poona.

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#### Andhra Pradesh

- \*33. Anakapalle Co-operative Agirucultural & Industrial Society Ltd., No. W-41, Thummapala, Anakapalle, Distt. Visakhapatnam.
- \*34. Andhra Sugars Ltd., Venkatarayapuram, Post Box No. 2, Tanuku, Distt. East Godavarl.
- \*35. Deccan Sugar & Abkhari Co. Ltd., Samalkot, Distt. West Godavari
- 36. Government Power Alcohol Factory, Shakarnagar, Distt. Nizamabad.
- \*37. Government Distillery, Narayanguda.
- \*38. K. C. P. Ltd., Vuyyuru, Distt. Krishna.
- 39. Sarvaraya Sugars Ltd., Chelluru, Distt. East Godavari.
- \*49. Sri Rama Sugars & Industries Ltd., Bobbili, Distt. Srikakulam.
  - 41. Hindustan Polymers Ltd., Near Gopalpatnam Police Station, Pendurtni, Distt. Visakhapatnam.

#### Mysore

- \*12. India Sugars & Refineries Ltd., Chitawdigi Road, Hospet, Distt. Bellary.
  - 43. Mysore Sugar Co. Ltd., Mandya.
- \*44. Ugar Sugar Works Ltd., P. O. Ugar-Khurd, Distt. Belgaum.
- 45. Talgibhadra Sugar Works (P) Ltd., Post Box No. 2, Shimoga.

#### Bthar

- 46. Behar Sugar Works (Distillery), Pachrukhi, Distt. Saran.
- 47. Cawnpore Sugar Works Ltd., (Marhowrah Distillery), Marhowrah P.O., Distt. Saran.
- \*48. New Swadeshi Sugar Mills Ltd., Narkatiaganj, Distt. Champaran. (N. E. Rly.)
  - 49. Arun Chemicals Pvt. Ltd., Sultanganj, Bhagalpur.
  - 50. Manpur Distillery, Manpur, Gaya.
  - 51. Mankatha Distillery, Mankatha, Lakhisarai P. O., Distt. Monghyr.
  - 52. Ranchi Distillery, P. O. Box No. 72, Ranchi, E. Rly.
- \*53. S. K. G. Sugar Ltd., Post Box No. 148, Fraser Road, Patna-1.

#### Tamil Nadu

- Kothari Sugar & Chemical Ltd., P. O. No. 267, Oriental Building, Armenian Street, Madras-1.
- \*55. E. I. D .- Parry Itd., Nellikuppam, South Arcot Distt.
- \*56. Triony Distilleries & Chemicals Ltd., Senthannipuram, Golden Rock, Tiruchirapally-4.
- 57. New Horizon Distillery, Pondicherry.

#### Punjab

- Jagatjit Distillery, P. O. Jagatjinagar, P. O. Hamirah, Distt. Kapurthala.
- \*59. Bhagat Industrial Corporation Ltd., P. O. Distillery Khasa, Distt. Amritsur.

#### Madhya Pradesh

- 60. Central India Chemicals Ltd., Sehore (Bhopal).
- \*61. Cox Distillery, Nowgong. (Via Harpalpur, C. Rly.)
- 62. Government Alcohol Factory, Ratlam.

#### West Bengal

- 63. Carew & Co. Ltd., Narsamuda, Asansol. (E. Rly.)
- Eastern Distilleries Pvt. Ltd., (Russa Distillery), B. L. Saha Road, Calcutta-53.
- 65. Shaw Wallace & Co. Ltd., Bhadrakali, Distt. Hooghly.

#### Haryana

- 66, Karnal Distillery Co. Ltd. Karnal.
- 67. Modi Synthetics Fibre Corporation, Industrial Area, Yamunanagar

#### Guiarat

- \*68. Alembic Chemical Works Co. Ltd., Alembic Road, Baroda-3.
- •69. Shree Bileshwar Khand Udyog Sahakari Mandli Ltd., Kodinar, Distt. Amreli.

#### Kerala

- 70. Mc Dowell & Co. Ltd., Varanad, Shertally P. O., Distt. Allepps y.
- 71. Polson Distillery, P. B. No. 6, Chalakudi.
- \*72. Travancore Sugars & Chemical Ltd., Tiruvalla.

#### Rajasthan

- \*73. The Ganganagar Sugar Mills Ltd., Sriganganagar.
- Udaipur Distillery Co. Pvt. Ltd., Post Box No. 1, Udaisagar Road, Udaipur.

सन्धासन जयन

#### B. PRODUCERS' ASSOCIATION

\*All India Distillers' Association, H-37, Connaught Circus, New Delhi-1.

#### C. SMALL SCALE PRODUCERS

- 1. Sconi Distillery, Sconi, Distt. Sconi (M.P.)
- 2. Munnalal & Sons (Pvt.) Ltd., Cox Distillery, Nowgong. (M.P.).
- 3. Gwailor Distillery, Gwalior (M.P.)
- 4. Government Distillery, Barwaha, Distt. Nimar, (West) (M.P.).
- 5. Central India Chemical Ltd., Sehore (M.P.)
- 6. Liquor Distillery, Bhopal. (M.P.)
- 7. E. B. Illaya & Co., Satna. (M.P.)
- 8. The Central Distillery, Ujjain. (M.P.)
- 49. Government Distilleries, Kamareddy, Nizamabad Distt. (A.P.)

#### D. RAW MATERIAL SUPPLIERS (Sugar Mills)

#### Gujarat

- Shree Khedut Sahakari Khand Udyog Mandli Ltd., Sardar Bag, Bardoli, Distt. Surat.
  - The Sahakari Khand UJyog Mandal Ltd., Gandevi, Via Bilimor, Distt. Bulsar.
  - Shree Bileshwar Khand Udyog Khedut Sahakari Mandli Ltd. Kodinar, Distt. Amreli.

#### Maharashtra

- The Saswad Mali Sugar Factory Ltd., P. O. Malinagar, Distt. Sholapur.
- The Brihan Maharashtra Sugar Syndicate Ltd., P. O. Shreepur, Distt. Sholapur.
- Yeswant Sahakari Sakhar Karkhana Ltd., P. O. Akluj, Distt. Sholapur.
- 7. The Ravalgaon Sugar Farm Ltd., P. O. Ravalgaon, Distt. Nasik
- Girna Sahakari Sakhar Karkhana Ltd., P. O. Dabhadi, Tal. Malegaon Distt. Nasik.
- Niphad Sahakari Sakhar Karkhana Ltd., P. O. Bhausaheb Nagar, Distt. Nasik.
- The Godavari Sugar Mills Ltd., P. O. Sakarwadi, Distt. Ahmednagar.
- The Godavari Sugar Mills Ltd., P. O. Lakshmiwadi, Distt. Ahmednagar.
- Shree Changdeo Sugar Mills Ltd., P. O. Changdeo Nagar, Distt' Ahmednagar.
- The Maharashtra Sugar Mills Ltd., P. O. Tilaknagar, Distt. Ahmednagar.
- The Kopergaon Sahakari Sakhar Karkhana Ltd., P. O. Kolpewadi
   Distt. Ahmednagar.
- 15. The Belapur Co. Ltd., P. O. Harigaon, Distt. Ahmednagar.
- The Pravara Sahakari Sakhar Karkhana Ltd., P. O. Pravaranagar, Distt. Ahmednagar.
- Ashok Sahakari Sakhar Katkhana Ltd., Ashoknagar, P. O. Shrirampur, Distt. Ahmednagar.
- \*18. Ganesh Sahakari Sakhar Karkhana Ltd., Ganeshnagar, P. O. Ranjangaon Khurd, Distt. Ahmednagar.
- The Sanjivani (Takli) Sahakari Sakhar Karkhana Ltd., P. O. Kopargaon, Distt. Ahmednagar.
- 9 -2 T.C. Bom/71

- \*20. The Rahuri Sahakari Sakhar Karkhana Ltd., Shri Shivajina gar P. O. Rahuri Factory, Distt. Ahmednagar.
- The Shrigonda Sahakari Sakhar Karkhana Ltd., Shrigonda, P. O. Balvandi, Distt. Ahmednagar.
- \*22. The Bhogawati Sahakari Sakhar Karkhana Ltd., P. O. Shahunagar, Distt. Kolhapur,
- \*23. The Kolhapur Sugar Mills Ltd., Kasaba Bavada, P. O. Kolhapur' Distt. Kolhapur.
  - Shree Panchganga Sahakari Sakhar Karkhana Ltd., P. O. Ichalkaranji, Distt. Kolhapur.
- \*25. Shree Warana Sahakari Sakhar Karkhana Ltd., P.O. Warananagar, Distt. Kolhapur.
- \*26. Kumbi-Kesari Sahakari Sakhar Karkhana Ltd., P. O. Koparde, Distt. Kolhapur.
- \*27. Dudhganga-Vedganga Sahakari Sakhar Karkhana Ltd., Birdi, P. O. Mouninagar, Distt. Kolhapur.
- \*28. Walchandnagar Industries Ltd., P. O. Walchandnagar, Distt. Poona.
- \*29. Shri Chhatrapati Shivaji Sahakari Sakhar Karkhana Ltd., P. O. Bhavaninagar, Distt. Poona.
- \*30. The Malegaon Sahakari Sakhar Karkhana Ltd., P. O. Malegaon, B. K., Distt. Poona.
- Shree Someshwar Sahakari Sakhar Karkhana Ltd., P. O. Nira, Distt. Poona.
- 32. Gangapur Sugar Mills Ltd., P. O. Raghunathnagar, Distt. Aurangabad.
- 33. Krishna Sahakari Sakhar Karkhana Ltd., Rethare Budruk, P. O. Shivnagar, Distt. Satara.
- \*34. Shriram Sahakari Sakhar Karkhana Ltd., P. O. Phaltan, Distt. Satara.
- \*35. The Phaltan Sugar Works Ltd., P. O. Sakharwadi, Distt. Satara.
- 36. Shetkari Sahakari Sakhar Karkhana Ltd., P. O. Sangli, Distt. Sangli,

#### Mysore

- \*37. The Ugar Sugar Works Ltd., P. O. Ugar-Khurd, Distt. Belgaum.
- \*38. Shri Hiranyakeshi Sahakari Sakhar Karkhana Niyamit, Sankeshwar, Distt. Belgaum.
- \*39. The India Sugars & Refineries Ltd., Hospet, Distt. Bellary.
- \*40. The Bellary Central Co-operative Stores, Sugar Factory, Kampli P. O., Distt. Bellary.
- 41. The Salar Jung Sugar Mills Ltd., Munirabad, Distt. Raichur.

- Pandavapura Sahakar Sakhar Karkhana Ltd., Pandavapura, Distt. Mandya.
- \*43. Thungabhadra Sugar Works (Private) Ltd., Shimoga, Distt. Shimoga.
- 44. Gauribidanur Sahakar Sakhar Karkhana Ltd., Gauribidanur, Distt. Kolar.
- \*45. The Mysore Sugar Co. Ltd., Mandya, Distt. Mandya.

## Andhra Pradesh

- \*46. The Nizam Sugar Factory Ltd., Shakarnagar, Distt. Nizamabad.
- The Nizamabad Co-operative Sugar Factory Ltd., Nizamabad, Distt. Nizamabad.
- \*48. The Chodavaram Co-operative Agricultural & Industrial Society Ltd., Chodavaram, Distt. Visakhapatnam.
- \*49. Anakapalle Co-operative Agricultural & Industrial Society Ltd.,

  Anakapalle P. O. Visakahapatnam Distt.
- \*50. The Etikoppaka Co-operative Agriculture & Industrial Society Ltd., P. O. Etikoppaka, Distt. Visakhapatnam.
  - 51. The Thandava Co-operative Agricultural & Industrial Society Ltd., P. O. Payakaraopeta, Distt. Visakhapatnam.
  - Sri Rama Sugars & Industries Ltd., Seethanagaram, Distt. Srikakulam.
- 53. Sri Rama Sugars & Industries Ltd., Bobbili, Distt. Srikakulam.
- Amadalavalasa Co-operative Agricultural & Industrial Society Ltd., Amadalavalasa P. O., Distt. Srikakulam.
- 55. The Krilampudi Sugar Mills Ltd., Pithapuram, Distt. East Godavari-
- •56. Sri Sarvaraya Sugars Ltd., Chelluru, Viq Ramachandrapuram, Distti East Godavari.
- \*57. The Deccan Sugar & Abkhari Co. Ltd., P. O. Samalkot, Distt. East Godayari.
- 58. The Andhra Sugars Ltd., Tanuku, Distt. West Godavari.
- \*59. The Palakol Co-operative Agircultural & Industrial Society Ltd., Palakol, Distt. West Godavari.
  - 60. V. V. S. Sugars (The Jeypore Sugar, Co. Ltd.), P. O. Chagullu, Distt, West Godavari.
- 61. Sivakami Sugars Ltd., Tanuku, Distt. West Godavari.
- 62. The K. C. P. Ltd., Vuyyuru, Distt. Krishna.
- 63. Chalapalli Sugars Ltd., P. O. Chalapalli, Disti. Krishna.
- •64. The Chittoor Co-operative Sugars Ltd., Chittoor, Distt. Chittoor.

#### Tamil Nadu

- \*65. The Deccan Sugar & Abkhari Co. Ltd., P. O. Pugalur Sugar Factory, Distt. Tiruchirapalli.
- Cauvert Sugars & Chemicals Ltd., Cauvery Factory, Pettivayatalali, Distt. Tiruchirapalli.
- Kothari Sugars & Chemicals Ltd., Rattur, Railway Station Lalgudi, Distt. Tiruchirapalli.
- 68. E. I. D. Parry Ltd., Nellikuppam P. O., Distt. South Arcot.
- The South India Steel & Sugars Ltd., Mundiyampakkam, Villupuram, Taluk, Distt. South Arcot.
- \*70. Aruna Sugars Ltd., Pennadam, Distt. South Arcot.
- 71. Kallakurichi Co-operative Sugar Mills Ltd., P. O. Moongilthuripattum, Kallakurichi Taluk, Distt. South Arcot.
- The Madura Sugars & Allied Products Ltd., Pandiarajapuram P. O., Distt. Madurai.
- \*73. The National Co-operative Sugar Mills Ltd., A-2731, Alanganallur Post, Distt. Madurai.
- 74. The Thiru Arooran Sugars Ltd., P. O. Vadapathimangalam, Distt. Tanjore.
- \*75. Amaravathi Co-operative Sugar Mills Ltd., A. K. Puthur P. O., Via Kaniyur, Distt. Coimbatore.
- \*76. The Sakthi Sugars Limited, P. O. Appakudal, Distt. Coimbatore.
- North Arcot Distt. Co-operative Sugar Mills Ltd., Vadapudupet, Ambur P.O., Distt. North Arcot.
- The Madhurantakam Co-operative Sugar Mills Ltd., P. O. Padalam, Distt. Chingleput.
- 79. The Salem Co-operative Sugar Mills Ltd., Mohanur, Via Karur (Namakkal Taluk), Distt. Salem.

#### Kerala

- 80. The Travancore Sugars & Chemicals Ltd., Pamba River Factory, Tiruvalla P.O., Distt. Quilon.
- \*81. The Mannam Sugar Mills Co-operative Ltd., No. 4324, Pandalam P.O., Distt. Alleppy.
  - 82. The Co-operative Sugars Ltd., Chittur, P.O. Menonpara, Distt. Palghat.

#### Pondicherry

83. The New Horizon Sugar Mills Co. Ltd., Secrur (Ariour). Pondicherry.

#### Orissa

- \*84. Jeypore Sugar Co. Ltd., Rayagada, Distt. Koraput.
- \*85. The Aska Co-operative Sugar Industries Ltd., P.O. Aska, Distt. Ganjam.

#### Uttar Pradesh (West)

- The Modi Sugar Mills, Prop. The Modi Industries Ltd., Modinagar, Distt. Meerut.
- \*87. Ram Luxman Sugar Mills, P. O. Mohiuddinpur, Distt. Meerut.
- 88. Jaswant Sugar Mills Ltd., Meerut City, Distt. Meerut.
- 89. Daurala Sugar Works, Daurala, Distt. Mcerut.
- 90. Diwan Sugar & General Mills Private Ltd., Diwannagar, P.O. Sakhoti Tanda, Distt. Meerut.
- \*91. Mawana Sugar Works, Mawana, Distt. Meerut.
- \*92. The Bagpat Co-operative Sugar Mills Ltd., Bagpat, Distt. Meerut.
- 93. The Simbhaolli Sugar Mills Pvt. Ltd., P. O. Simbhaoli, Distt. Meerut\*
- \*94. The Upper India Sugar Mills Ltd., Khatauli, Distt. Muzaffarnagar.
- Sir Shadi Lal Sugar & General Mills Ltd., Mansurpur, Distt. Muzaffarnagar.
- The Amritsar Sugar Mills Co. Ltd., Rohanakalan, P. O. Rohana Mills, Distt. Muzaffarnagar.
- \*97. The Upper Doab Sugar Mills Ltd., Shamli, Distt. Muzaffarnagar
- \*98. Shri Janki Sugar Mills & Co., Diowala, Distt. Dehradun.
- \*99. The Ganga Sugar Corporation Ltd., Deoband, Distt. Saharanpur.
- \$100. The Lord Krishna Sugar Mills Ltd., Saharanpur, Distt. Saharanpur.
- \*101. Kisan Co-operative Sugar Factory Ltd., P. O. Sarsawa, Distt. Saharanpur.
- 102 Rai Bahadur Narain Sing Sugar Mil's Pvt. Ltd., Lhaksar, Distt. Saharanpur.
- \*103. The Mahalakshmi Sugar Mills Co. Ltd., Iqbalpur P. O., Distt. Saharanpur.
- \*104. Shiv Prasad Banarsidas Sugar Mills, Bijnor, Distt. Bijnor.
  - 105. Upper Ganges Sugar Mills Ltd., Seohara, Distt. Bijnor.
- 106. The Dhampur Sugar Mills Ltd., P. O. Dhampur, Distt. Bijnor.
- 107. The Ajudhia Sugar Mills, P. O. Raja-ka-Sahaspur, Distt. Morada-bad.

- 108. Kundan Sugar Mills, Amroha, Distt. Moradabad.
- \*109. Raza Buland Sugar Co. Ltd., P. O. Rampur, Distt. Rampur.
- \*110. H. R. Sugar Factory Pvt. Ltd., Bareilly, Distt. Bareilly.
  - 111. The Kesar Sugar Works Ltd., Baheri, Distt. Bareilly.
- \*112. Rosa Sugar Works Carew & Co. Ltd., Rosa, Distt. Shahjahan-pur.
- \*113. L. H. Sugar Factories & Oil Mills Pvt. Ltd., Pilibhit, Distt. Pilibhit.
  - 114. The Kisan Co-operative Sugar Factory Ltd., Majhola, Distt. Pilibhit.
  - 115. L. H. Sugar Factories & Oil Mills Pvt. Ltd., Kashipur, Distt. Nainital.
- \*116. The Bazpur Co-operative Sugar Mills Pvt. Ltd., Bazpur, Distt. Nainital.
- \*117. The Neoli Sugar Factory, Manpurnagaria, P. O. Neoli, Distt. Etah.
- \*118. The Oudh Sugar Mills Ltd., Hargaon, Distt. Sitapur.
- \*119. The Lakshmiji Sugar Mills Pvt. Ltd., Maholi, Distt. Sitapur.
- \*120. The Seksaria Biswan Sugar Factory Pvt. Ltd., Biswan, Distt. Sitapur.
- 121. The Hindustan Sugar Mills Ltd., Golagokarnnath, Distt, Kheri.
- \*122. The Gobind Sugar Mills Ltd., P.O. Aira Estate, Distt. Kheri.
- 123. The Lakshmi Sugar & Oil Mills Ltd., Hardoi, Distt. Hardoi.
- 124. The Pannijee Sugar & General Mills Co., Panninagar, Distt. Bulandshahr.

#### Punjab

- 125. The Morinda Co-operative Sugar Mills Ltd., Morinda, Distt. Ambala.
- \*126. The Jagatjit Sugar Mills Co. Ltd., Phagwara, Distt. Kapurthala.
- \*127. The Malwa Sugar Mills Co. Ltd., Dhuri Distt. Sangrur.
  - The Janata Co-operative Sugar Mills Ltd., Bhogpur P.O., Distt. Jullundur.
- \*129. The Batala Co-operative Sugar Mills Ltd., Batala, Distt. Gurdas-pur

#### Haryana

- \*130. The Saraswati Sugar Mills, P. O. Yamunanagar, Distt. Ambala.
  - 131. The Haryana Co-operative Sugar Mills Ltd., P. O. Rohtak, Distt. Rohatak.
- The Panipat Co-operative Sugar Mills Ltd., P. O. Panipat, Distt. Karnal.

#### Rajasthan

- 133. The Mewar Sugar Mills Ltd., Bhupalsagar, Dsstt. Udaipur
- 134. The Ganganagar Sugar Mills Ltd., Sri Ganganagar P. O., Distt. Sri, Ganganagar.

#### Madhya Pradesh

- 135. The Gwalior Sugar Co. Ltd., P. O. Dabra, Distt. Gwalior.
- 136. The Jaora Sugar Mills Pvt. Ltd., Jaora, Distt. Ratlam.
- 137. Seth Govindram Sugar Mills, P.O. Mehidpur Road, Distt. Ujjain.
- \*138. The Jiwaji Rao Sugar Co. Ltd., Dalauda, Distt. Mandsaur.
- 139. The Bhopal Sugar Industries Ltd., Schore, Distt. Schore.

#### Uttar Pradesh (East)

- 140. The United Provinces Sugar Co. Ltd., Seorahi P.O., Distt. Deoria.
- 141. Shree Sitaram Sugar Co. Ltd., Raitalapur P. O., Distt. Deoria.
- \*142. Cawnpore Sugar Works Ltd., Gauri Factory Branch, P.O. Gauribazar, Distt. Deoria.
- 143. Deoria Sugar Mills Ltd., Deoria, Distt. Deoria.
- 144. The Shankar Sugar Mills Ltd., Captaingani, Distt. Deoria.
- 145. The Vishnu Pratap Sugar Works (Pvt.) Ltd., P. O. Rajabazar Khadda, Distt. Deoria.
- 146. Lakshmi Devi Sugar Mills Pvt. Ltd., Chhitauni, Dist. Deoria.
- \*147. The Ishwari Khetan Sugar Mills Ltd., Lakshmi Ganj, Distt. Deoria.
- 148. The Ramkola Sugar Mills Co. Ltd., Ramkola Distt. Deoria.
- 149. The Maheshwari Khetan Sugar Mills Pvt. Ltd., P. O. Ramkola, Distt. Deoria.
- \*150. Cawnpore Sugar Works Ltd., Padrauna Factory Branch, P. O. Padrauna, Dist. Deoria.
- \*151. Cawnpore Sugar Works Ltd., Kathkuiyan Factory Branch, P.O. Kathkuiyan, Distt. Deoria.
- 152. The Purtabpore Co. Ltd., P. O. Mairwa, Distt. Deoria.
- 153. Kamlapat Motilal Bhatni (Sugar Mills) Branch, P.O. Bhatni, Distt. Deoria.
- 154, Saraya Sugar Mills Private Ltd., Sardarnagar, Dist. Gorakhpur.
- 155, Diamond Sugar Mills Private Ltd., Pipraich, Dist. Gorakhpur.
- 156. The Punjab Sugar Mills Co. Ltd., Ghughli, Distt. Gorakhpur.
- 157. Mahabir Sugar Mills Pvt. Ltd., P.O. Siswa Bazar, Distt. Gorakhp

- \*158. The Ganesh Sugar Mills Co. Ltd., P.O. Anandnagar, Distt. Gorakhpur,
- •159. The Madho Mahesh Sugar Mills Pvt. Ltd., P.O. Munderwa, Distt. Basti.
  - 160. The Basti Sugar Mills Co. Ltd., P.O. Walterganj, Distt. Basti.
  - 161. The Basti Sugar Mills Co. Ltd., Basti, Distt. Basti.
- \*162 Shree Anand Sugar Mills Ltd., Khalilabad, Distt. Basti.
- \*163. The Seksaria Sugar Mills Pvt. Ltd., P. O. Babhnan, Distt. Gonda.
- 164. The Nawabganj Sugar Mills Co. Ltd., P.O. Sugar Factory, Nawabganj, Distt. Gonda.
- \*165. Balrampur Sugar Co. Ltd., Balrampur Factory Branch, Balrampur P.O., Distt. Gonda.
  - 166. Tulsipur Sugar Co. Ltd., Tulsipur Factory Branch, Tulsipur P.O., Distt. Gonda.
- \*167. R. B. Lachmandas Sugar & General Mills Pvt. Ltd., P.O. Jarwal Road, Distt. Bahraich.
- \*168. The Burhwal Sugar Mills Co. Ltd., Burhwal, Distt. Barabanki.
- \*169. Ramchand & Sons Sugar Mills Pvt. I.td., Barabanki, Distt. Barabanki.
- \*170. The Ratna Sugar Mills Co. Ltd., Shahganj, Distt. Jaunpur.
- Kamlapat Motilal, Motingar (Sugar Mills) Branch P.O. Motinagar, Distt. Faizabad.

#### North Bihar

- \*172. Lohat Sugar Works of the Darbhanga Sugar Co. Ltd., Lohat P.O., Distt. Darbhanga.
- \*173. Sakri Sugar Works of the Darbhanga Sugar Co. Ltd., Sakri P.O., Distt. Darbhanga.
- \*174. New India Sugar Mills Ltd., Hassanpur Road, P.O. Hassanpur Sugar Mills, Distt. Darbhanga.
  - 175. Ryam Sugar Co. Ltd., Ryam Factory P.O., Distt. Darbhanga.
- \*176. Samstipur Central Sugar Co. Ltd., Samstipur Factory Branch, P.O. Samastipur Distt. Darbhanga.
- \*177. Belsund Sugar Co. Ltd., Righa P.O., Distt. Muzaffarpur.
  - 178. The Motipur Sugar Factory Pvt. Ltd., Motipur, Distt. Muzaffarpur.
  - 179. The Sitalpore Sugar Works Ltd., P.O. Garul, Distt. Muzaffarpur.
- 189. Shree Hanu man Sugar & Industries Ltd., Motihari, Distt. Champaran.

- Motilal Padampat Sugar Mills Co. Pvt. Ltd., Majhaulia, Distt. Champaran.
- •182. Champaran Sugar Co. Ltd., Chanpatia Factory Branch, P.O. Chanpatia, Distt. Champaran.
- Shree Krishna Gyanoday Sugar Ltd., Lauriya P.O., Distt. Champaran.
- North Bihar Sugar Mills Ltd., Bagaha, P.O. Narainpur, Distt. Champaran.
- \*185. The New Swadeshi Sugar Mills Ltd., Narkatiaganj, Distt. Champaran.
- 186. Harinagar Sugar Mills Ltd., P.O. Harinagar, Distt. Champaran.
- 187. The Sugardi Sugar Works Pvt. Ltd., P.O. Sugarli, Distt. Champaran.
- \*188. Champaran Sugar Co. Ltd., Barrah Factory Branch, P.O. Barachakia, Distt. Champaran.
- 189. New Savan Sugar Mills, P.O. Siwan, Distt. Saran.
- The Behar Sugar Works Branch of the Industrial Corporation Ltd., Pachrukhi, Distt. Saran.
- Shree Krishna Gyanoday Sugar Ltd., Hathua, P.O. Mirganj, Distt. Saran.
- \*192. Bharat Sugar Mills Ltd., Sidhwalia P.O., Distt. Saran.
- \*193. Cawnpore Sugar Works Ltd., Marhowarah Factory Branch, Marhowarah P.O., Distt. Saran.
  - 194. Sasa Musa Sugar Works Pvt. Ltd., Sasa Musa P.O., Distt. Saran
  - 195. The Vishnu Sugar Mills Ltd., P.O. Vishnu Sugar Mills, Gopalganj, Distt. Saran.
- 196. Shri Krishna Gyanoday Sugar Ltd., P.O. Siwan, Distt. Saran.

#### South Bihar

- \*197. Guraru Chini Mills, P.O. Guraru Mills, Distt. Gaya.
- 198. Mohini Sugar Mills Ltd., P.O. Warisaliganj, Distt. Gaya.
- 199. South Bihar Sugar Mills Ltd., Bihta, Distt. Patna.
- 200. Rohtas Industries Ltd., P.O. Dalmianagar, Distt. Shahabad.

#### West Bengal

 The Ramnugger Cane & Sugar Co. Ltd., Tejnagar, Plassey P.O. Distt. Nadia.

#### Assam

 The Assam Cooperative Sugar Mills Ltd., P.O. Barua Bamungaon, Sub-Division Golaghat, Distt. Sibsagar.

#### E. RAW MATERIAL SUPPLIERS ASSOCIATIONS

- \*1. Indian Sugar Mills Association, India Exchange Place, Calcutta-1.
- \*2. All India Improved Khandsari Sugar Manufacturers' Association, Mandi Bans, Moradabad. (U.P.)

#### F. CONSUMERS

- \*1. Alkali & Chemical Corporation of India Ltd., P.O. Rishra., Distt. Hooghly.
  - 2. Atul Drugs House Ltd., Near Oil Factory, Kandla.
- 3. Ashok Cosmetics, Industrial Estate, Jalna.
- \*4. Bombay Drug House Pvt. Ltd., Tulsi Pipe Road, Bombay-16.
- \*5. Bengal Chemicals & Pharmaceuticals Works Ltd., 164, Maniktala Main Road, Calcutta-54.
- 6. CIPLA, 289, Bellasis Road, Bombay-8.
- 7. D.D.T. Project, Alwaye, Kerala.
- \*8. Glaxo Laboratories (India) P. Ltd., (Glaxo and BDH. Divisions) Dr. Annie Besant Road, Bombay-18 WB.
- \*9. Hindustan Lever Ltd., 165/166, Backbay Reclamation, Bomaby-1.
- \*10. Hindustan Insecticides Ltd., Industrial Area, Rohtak Road, New Delhi-15.
- Industrial Chemical & Allied Products, 397-A, Lamington Road, Bombay.
- \*12. Indian Organic Chemicals Ltd., 28, Apollo Street, Fort, Bombay-1.
- 13. Indian Pharmaceutical Association, 213, Frere Road, Bombay-1.
- 14. Indian Pharmaceutical Combine Association Ltd., 95, Morland Road, Bombay-8.
- \*15. Indian Chemical Manufacturers' Association, Sir Vithaldas Chambers, 16, Apollo Street, Bombay-1.
- 16. Indian Drug Manufacturers' Association, P. O. No. 7396, Bombay-58.
- J. K. Chemicals Ltd., J. K. Building, Dougall Road, Ballard Estate, Bombay-1.
- \*18. Cyanamid India Ltd., Atul P.O. Via Bulsar, Distt. Bulsar (Gujarat State).
- \*19. Lakme Limited, C/o. Tata Oil Mills Co. Ltd., Hay Bunder Road, Tank Road P.O., Bombay-33.
- \*20. May & Baker (India) Pvt. Ltd., Bombay-Agra Road, Bhandup, Bombay-78.
- \*21. Parke Davis (India) Ltd., H. O. Sakinaka, Bombay-72. AS

- \*22. Pfizer Ltd., I. C. I. C. I. Building, 163, Backbay Reclamation, Bombay-1.
- \*23. Sardesai Brothers Ltd., Billimora, Distt. Bulsar. (Gujarat State)
- \*24. Sirsilk Ltd., Sirpur-Kaghaznagar, (Andhra Pradesh)
- \*25. Synthetics & Chemicals Ltd., 7, Jamshedji Tata Road, Churchgate Reclamation, Bombay-20.
- \*26. Sarabhai Chemicals Karamchand Premchand (P) Ltd., P. B. No. 31, Wadi Wadi, Baroda.
  - 27. Synbiotics Limited, Wadi Wadi, P.O. No. 129, Baroda.
- The India Sugar & Refineries Ltd., 139, Medows Street, P. B. No. 1659, Fort, Bombay-1.
- \*29. Union Carbide India Ltd., Anik, Chembur, Bombay-74. (AS)
- Vijay Industries, Vijay Trading Corpn., 297-B, Old Post Office Lane, Mangaldas Market, Bombay-2.
- \*31. Zandu Pharmaceutical Works Ltd., Gokhale Road, South, Bombay-28. DD
- \*32. Angelo Bros. Ltd., 7, Ramgopal Ghosh Road, Cossipore, Calcutta-2.
- \*33. Hindustan Insecticides Ltd., Udyogmandal, Kerala State.
  - Hindustan Lever Ltd., Ilaco House, 1 & 3, Brabourne Road, P.O. No. 358, Calcutta-1.
  - 35. Roche Products Ltd., 28, Tardeo Road, Bombay-34. WB.
- \*36. Therapeutic Pharmaceuticals, 54, Proctor Road, Bombay-7 WB.
- \*37. Bombay Varnish Mfg. Co., Mahajan Silk Compound, Agra Road, Vikhroli, Bombay-79 (NB)
- \*38. Organisation of Pharmaceutical Producers of India, Cook's Building, Dr. Dadabhoy Naoroji Road, Bombay-1.

#### G. CENTRAL GOVERNMENT DEPARTMENTS

- 1. The Secretary to the Government of India, Ministry of Foreign Trade and Supply, New Delhi.
- \*2. The Secretary to the Government of India, Ministry of Petroleum & Chemicals & Mines and Metals, (Department of Chemicals), New Delhi.
- \*3. The Director, Indian Standards Institution, 9, Bahadurshah Zafar Road, New Delhi.
- \*4. Directorate General of Technical Development, (Organic Chemicals and Petro-Chemicals Directorate), Udyog Bhavan, New Delhi-11.
- \*5. The Development Commissioner, Small Scale Industries, Ministry of Industrial Development and Company Affairs, Nirman Bhavan, New Delhi.

- \*6. The Secretary, Ministry of Railways, (Railway Board), New Delhi-
  - \*7. The Collector of Customs, New Custom House, Bombay.
  - \*8. The Collector of Customs, Calcutta.
  - 9. The Collector of Customs, Custom House, Madras.
  - \*10. The Collector of Customs, Customs House, New Kandla.
    - 11. The Collector of Customs, Cochin.
  - \*12. Central Board of Customs & Excise, Central Revenue Building, Mathura Road, New Delhi-1.
  - \*13. The Secretary, Planning Commission, Yojana Bhavan, Parliament Street, New Delhi-1.
    - First Secretary (Com.) High Commission of India, Via, Fracisco Denze, Rome (Italy).
  - \*15. Consul (Commercial), Consulate General of India, 215, Market Street, Galif 95105 Sanfrancisco (U.S.A.)
  - 16. Deputy High Commissioner, Caltex House, 10th Floor, 167-187 Kent Street, Sydney (Australia).
  - \*17. First Secretary (Commercial) Embassy of India, No. 2 Rue Codot-De-Mauroy, Paris-9 (France).
  - \*18. First Secretary (Com.), High Commission of India, London, W. C. 2, (U. K.)
  - \*19. High Commission for India, Frere Felix de Valois Street, Port Louis, Mauritius.
  - \*20. The Chief Controller of Imports & Exports, Ministry of Foreign Trade, Udyog Bhavan, New Delhi-1.
  - \*21. The Director General of Commercial Intelligence & Statistics, 1, Council House Street, Calcutta-1.
  - \*22. The Collector of Central Excise, New Central Excise Building, Maharshi Karve Road, Post Box No. 806, Churchgate, Bombay-20.
  - \*23. Directorate of Sugar & Vanaspati, Ministry of Food, Agriculture, Community Development and Co-operation, (Department of Food), Jamnagar House, New Delhi-1.
  - \*24. National Sugar Institute, Government of India, Ministry of Food, Agriculture, Community Development and Co-operation (Department of Food), Kanpur.

#### H. STATE GOVERNMENTS

- \*1. The Secretary to the Government of Andhra Pradesh, Revenue-Department, Hyderabad.
- 2. The Secretary to the Government of Assam, Department of Revenue's Shillong.

- \*3. The Secretary to the Government of Bihar, Excise Department, Patna-15.
- 4. The Secretary to the Government of West Bengal Excise Department Calcutta.
- \*5. The Secretary to the Government of Gujarat, Department of Revenue, Ahmedabad.
- 6. The Secretary to the Government of Jammu & Kashmir, Department, of Revenue, Srinagar.
- The Secretary to the Government of Kerala, Revenue (G) Department, Trivandrum.
- \*8. The Secretary to the Government of Madhya Pradesh, Revenue Department Bhopal.
- \*9. The Secretary to the Government of Tamil Nadu, Industries, Labour and Housing Department, Madras.
- \*10. The Secretary to the Government of Maharashtra, Industries & Labour Department, Sachivalaya, Bombay-32.
- \*11. The Secretary to the Government of Mysore, Home Department Mysore Government Secretariat, Bangalore.
- \*12. The Secretary to the Government of Orissa, Excise Department, Bhubaneswar.
- \*13. The Secretary to the Government of Punjab, Excise & Taxation Department, Chandigarh.
- \*14. The Secretary to the Government of Haryana, Revenue (Excise & Taxation) Department, Chandigarh.
- 15. The Secretary to the Government of Rajasthan, Finance (Excise) Department, Jalpur.
- \*16. The Secretary to the Government of Uttar Pradesh, Excise Department, Lucknow.
  - 17. The Department of Revenue, Delhi Administration, Delhi.
- \*18. Government of Himachal Pradesh, Excise & Taxation Department, Simla-2.
- \*19. The Director, Department of Prohibition & Excise, Government of Maharashtra, Old Custom House, Bombay-1.

#### I. OTHERS

- \*1. Shri S. N. Gundu Rao, (Formerly Director of National Institute of Sugar), Technical Adviser, British India Corporation, Civil Lines, Kanpur.
- 2. The Distillery Trading Corporation Ltd., 8, Lady Hardinge Road, New Delhi.
- \*3. National Organic Chemical Industries Ltd., Sandoz House, Dr. Annie Besant Road, Worli, Bombay-18.
- \*4, Study Group for Alcohol, Ministry of Petroleum & Chemicals & Mines and Metais (Department of Chemicals), New Delhi.
- •5. Director, Planning Research & Action Institute, Uttar Pradesh, Lucknow.

#### APPENDIX 3

## (Vide paragraph 3.4)

## Names of Distilleries selected for cost investigation

#### Uttar Pradesh

- 1. Daurala Sugar Works (Distillery) Daurala, Distt. Meerut.
- 2. The Saraya Distillery Ltd., P. O. Sardarnagar, Distt. Gorakhpur,
- 3. Kesar Sugar Works Ltd., P. O. Baheri, Distt. Bareilly.
- 4. Mohan Meakin Breweries Ltd., Mohan Nagar, Ghaziabad.
- 5. Standard Refinery & Distillery Ltd., P. O. Unnao.
- Pilkhani Distillery & Chemical Works Ltd., Pilkhani Distt. Saharanpur.

#### Maharashtra

- Brihan Maharashtra Sugar Syndicate Ltd., P. O. Shreepur, Distt. Sholapur.
- 8. Government Distillery, Chitali, Distt. Ahmednagar.

#### Andhra Pradesh

- 9. K. C. P. Ltd., Vuyyuru, Disti. Krishna.
- 10. Sri Rama Sugar & Industries Ltd., Bobbili, Distt. Srikakulam.

#### Mysore

11. Ugar Sugar Works Ltd., P.O. Ugar Khurd, Distt. Belgaum.

#### Bihar

12. S. K. G. Sugar Ltd., Patna.

### Tamil Nadu

13. Trichy Distilleries and Chemicals Ltd., Tiruchirapalli.

#### Punjab

14. Jagatjit Distillery, P. O. Jagatjitnagar, Dist. Kapurthala.

#### West Bengal

15. Eastern Distilleries Pvt. Ltd. (Russa Distillery), Calcutta.

#### Kerala

16. Travancore Sugars & Chemicals Ltd., Tiruvalla.

## APPENDIX 4

## (Vide paragraph 3.5)

## List of units visited by the Commission and its officers

## A. Units visited by the Commission

Date of visit
. 3
nan. 12-10-68
14-10-68
7-5-69
8-5-69
. 12-8-68
12-8-68
6-6-68
7-6-68

## B. Units visited by the Officers

Name of the Distillery	Visited by		
1	2		
1. Ugar Sugar Works Ltd., Ugar-Khurd. (Mysore).	Shri S. R. Mallya, Cost Accounts Officer.		
<ol> <li>Travancore Sugars &amp; Chemicals Ltd., Tiruvalla. (Kerala).</li> </ol>	Ditto.		
3. K. C. P. Ltd., Vuyyuru. (A.P.)	Shri R. Vishvanathan, Asstt. Cost Accounts Officer.		
4. Brihan Maharashtra Sugar Syndicate Ltd., Shreepur. (Maharashtra).	Shri S. R. Mallya, Cost Accounts Officer.		
5. Daurala Sugar Works, Daurala. (U.P.).	Shri V. S. S. Rajan, Senior Cost Accounts Officer.		
6. Kesar Sugar Works Ltd., Baheri. (U.P.)	Shri G. C. Santra Asstt. Cost Accounts Officer, Cost Accounts Branch, Ministry of Finance, New Delhi.		
7. Pilkhani Distillery & Chemical Works Ltd., Pilkhani. (U.P.)	Shri V. S. S. Rajan, Senior Cost Accounts Officer.		
8. Jagatjit Distillery, Jagat jitnagar. (Punjab)	Shri P. B. Dutta, Asstt. Cost Accounts Officer.		
9. Standard Refinery & Distillery, Unnao (U.P.) (Also Head Office at Calcutta)			
at Calcutta)  10. Eastern Distilleries Pvt. Ltd., Calcutta. (West Bengal)	Shri S. R. Mallya, Cost Accounts Officer.		
<ol> <li>Government Distillery, Chitali. (Maharashtra).</li> </ol>	Shri P. B. Dutta, Asstt. Cost Accounts Officer.		
12. Mohan Meakin Breweries Ltd., Ghaziabad. (U.P.)	Ditto.		
13. Sri Rama Sugar & Industries Ltd., Bobbill. (A.P.)	<ol> <li>Shri K.V.C. Rao, Asstt. Director,</li> <li>Shri S. N. Misra, Asstt. Cost Accounts Officer.</li> </ol>		
14. Saraya Distillery, Sardarnagar. (U.P.)	Shri S. N. Misra, Asstt. Cost Accounts Officer.		
15. S.K.G. Distillery, Mirga nf. (Bihar)	Ditto.		
16. Trichy Distilleries and Chemicals Ltd., Tiruchirapalli (Tamil Nadu)	Shri V. S. S. Rajan, Senior Cost Accounts Officer.		

#### APPENDIX 5

## [Vide paragraph 3.6]

# List of persons who attended the Commission's public inquiry on 25th March 1969

#### A. Producers

- 1. Shri G. Gundurao . Representing (a) Sir Shadilal Distillery & Chemical Works, Mansurpur, Distt. Muzaffarnagar, and
  - (b) All India Distillers' Association, H-37, Connaught Circus, New Delhi.
- 2. Shri M. P. Mathur
  3. Dr. S. C. Mathur
  - Kasar Sugar Works Ltd.
    P.O. Baheri, Distt. Bareilly,
- 4. Shri V. Guruswamy

K. C. P., Ltd., Vuyyuru, Distt. Krishna.

5. Shri N. Nageswaran .

- (a) Deccan Sugar & Abkhari Co. Ltd., Samalkot, Distt. West Godavari,
- (b) Travancore Sugars & Chemical Ltd., Tiruvalla, and
- (c) F. I. D.—Parry Ltd., Nelliikuppam, Distt. South Arcot.

- 6. Shri S. V. Arbatti
- Government Distillery, Chitali,
  Distt. Ahmednagar.
- Shri K. R. Patwardhan
   Shri V. N. Sathe

Brihan Maharashtra Sugar Syndicate Ltd., P. O. Shreepur, Distt. Sholapur:

9. Shri S. D. Patil .

Sangli Sahakari Distillery, Sangli.

10, Shri K. B. Singh

Daurala Sugar Works, (Distije lary) Daurala, Disti-Meerut.

,,

11. Shri M. N. Medhekar	Representing	India Sugars & Refineries Ltd., Chitawadigi Road, Hospet, Bellary.				
2. Shri B. M. Dutt .	)					
13. Shri S. N. Dingorkar .	}	Walchandnagar Industries Ltd., Walchandnagar, Distt. Poons.				
14. Shri G. V. Bhimpure .	]	roong.				
15. Shri B. T. Lavingia .	}	Somaiya Organo Chemicals				
16. Shri N. R. S. Mani	"	Ltd., (Sakarwadi Disti- lery), Via Kanhegao, (C. Rly.), Sakarwadi, Distt. Ahmednagar.				
B. Producers' Association						
17. Shri R. P. Nevatia .	1050					
18. Shri S. K. Somaiya .		8				
19. Shri Shivraj Gupta .		Sec.				
20. Shri O. N. Chandoke .		All India Distillers' - Associa-				
21. Shri M. L. Modi .	,,	tion, H-37, Connaught Circus, New Delhi.				
22. Shri Sanjay Dalmia .	FEET BILL					
23. Shri N. Vaidyanathan .		E)				
24. Shri R. Shahai	TO THE SAME					
	C. Consumer	s				
25. Shri D. M. Trivedi .	"	(a) Synthetics & Chemicals Ltd., P. B. No. 52, Bareilly.				
		(U.P.), and				
		(b) Indian Chemical Manufac- turers' Association, 16, Apollo Street, Bombay-1.				
26. Shri A. H. Mazumdar.	**	Synthetics & Chemicals Ltd., P. B. No. 52, Bareilly (U.P.).				
27. Shri V. Subramanian .	**	Alkali & Chemical Corpora- tion of India Ltd., P. O. Rishra, Distt. Hooghly.				
28. Shri M. A. Ekambaram	. ,,	Sirsilk Ltd., Sirpur, Kaghaz- nagar,				

29. Shri J. B. Colah	٠ ٦						
30. Dr. U. C. Patel .	. Representing	Union Carbide India Ltd.,					
31. Shri V. Vrat .	. ]	Anik, Chembur, Bombay-74.					
32. Shri V. N. Navalekar	÷ 29	Sardesai Brothers Ltd., Billimora, Distt. Bulsar, (Gujarat State).					
33, Shri D. L. Dholakia	• ***	Sarabhai Chemicals, Karam- chand Premchand (P) Ltd., P. B. No. 31, Wadi Wadi, Baroda.					
34. Shri V. M. Merchant	• >>	Indian Organic Chemicals Ltd., 28, Apollo Street, Fort, Bombay-1.					
35. Shri B. Chaudhury		Angelo Brothers Ltd., 7, Ramagopal Ghosh Road, Cossipore, Calcutta-2.					
D. Consumers' Association							
36. Shri A. M. Gadgil	. ,,	Indian Chemical Manufac- turers' Association, Sir Vithaldas Chambers, 16, Apollo Street, Bombay-1.					
E. Raw Material Suppliers							
37. Shri N. C. Varma	सन्यमेव जय	Godavari Sugar Mills Ltd., P. O. Sakarwadi, Distt. Ahmednagar.					
38. Shri A. D. Gupte	• 19	Phalton Sugar Works Ltd., P. O. Sakarwadi, Distt. Satara.					
F. Raw Material Suppliers' Association							
39. Shri M. L. Apte	.) "	Indian Sugar Mills Association					
40. Shri S. P. Jain .	}	India Exchange, India Exchange Place, Calcutta-1.					
G. Government Departments							
41. Dr. K. S. Tiwari	• ,,	Directorate General of Technical Development, (O.C. & P.C. Directorate), Udyog Bhavan, New Delhi-11.					

42. Shri A. Satyanarayana	Representing	Ministry of Petroleum & Chemicals & Mines and Metals, (Department of Chemicals), New Delhi.
43. Shri M. R. Narvekar .	**	Government of Maharashtra, Industries & Labour De- partment, Bombay.
44. Shri Jagannath Prasad	19	Government of Uttar Pradesh, Excise Department, Luck- now.
45. Shri N. K. Ramaswamy	,,	Indian Standards Institution, 9, Bahadurshah Zafar Road, New Delhi.
46. Shri G. G. Dave .	~F33	Government of Gujarat, Department of Revenue, Ahmedabad.
47. Shri Surjit Singh .		Central Board of Excise & Customs, Central Revenue Building, Mathura Road, New Delhi.
48. Shri B. G. Kulkarni	,	Collector of Customs, New Customs House, Bombay
	H. Others	to the second
49. Shri B. N. Bhargava .	200	Industrial Credit & Invest- ment Corporation of India Ltd., Backbay Reclama- tion, Bombay-1.
	선생님이 되어	171

(Vide paragraph 5.2)

Particulars of unit-wise capacity and production of Alcohol during the years 1965, 1966, 1967, 1968 and 1967, 1968

	1969 (January- August)		3,112	7,637	6,894	778	2,026	629	
spirit	1968 (J)		2,810	4,209	4,262	3,410	3,135	Z.	
of rectified	1967		1,484	3,035	6,838	1,248	1,633	Ē	
Production of rectified spirit	1966		3,823	6,818	8,857	1,995	2,847	Ä	
Par :	1965		2,739	4,772	7,352	1,554	3,178	Ä	
Annual	capacity as on 1-1-1969	W	5,455	12,002	15,456	2,046	6,000	818	
			ħ	•	•	•	•	•	
. •	TEM)	a av		•	•	•	•	•	Ì
Wiscon of the Dietillann	(Statewise)	Uttar Pradesh	Ajudhia Distillery, Raja-Ka-Sahaspur	Alco Chem Ltd., Scohara	Captainganj Distillery Ltd., Captainganj	Carew & Co. Ltd., Rosa	5 Central Distillery, Meerut Cantt.	6 Co-operative Co. Ltd., Saharanpur .	
	Ž. Š		1 Ajud	2 Alco	3 Capt	4 Care	5 Cent	Š °	

, APPENDIX 6—contd.

SI.	Name of the Distilla-	Annual		Production	Production of rectified spirit	ed spirit	drit
o Z	(State-wise)	installed - capacity as on 1-1-1969	1965	1966	1967	1968	1969 (January- August)
1	Daurala Sugar Works, Daurala	11,365	8,934	9,111	4,633	4,291	8,297
00	Mohan Meakin Breweries Ltd., Lucknow.	1,637	3,164	2,726	2,198	2,491	1,919
6	Mohan Meakin Breweries Ltd., Mohan Nagar	1,000	65	111	653	69	Y.A.
10	Hindustan Sugar Mills Ltd., Golagokarannath .	13,638	11,756	17,119	7,715	6,114	11,433
11	Kesar Sugar Works Ltd., Baheri	10,229	6,386	7,328 (1,145)	3,843	3,334	3,735
12	Modi Distillery, Modinagar	4,546	3,992	3,772	1,840	1,530	2,195
13	Narang Industries Ltd., Nawabganj	9,000	3,082 (20)	3,259	2,338	739	1,037
14	Oudh Sugar Mills Ltd., Hargaon	7,637	8,948 (10)	8,706 (569)	5,076	4,727	\$,044
15	Pilkhani Distillery & Chemical Works, Pilkhani	5,455	3,732	3,657	1,604	837	2,711
16	Rampur Distillery& Chemical Company Limited,	10,000	3,646	8,163	2,360	2,312	4,902
17	Saraya Distillery, Sardamagar	15,456	8,964	9,166	5,872	4,362	5,423

							13	31						
2,982	3,391	1,680	N.A.	75,825		3,231	6,337	4,359 (142)	1,478	3,633	1,925	5,932	2,762	29,657 (142)
1,609	3,285	1,271	168	54,965 (156)		4,233	8,099	9,585 (368)	1,855	5,592	3,625	6,518	3,339	42,846 (368)
1,360	1,811	1,988	518	58,047		3,062	7,282	6,323 (25)	1,882	4,016	2,394	5,528	3,996	34,483 (25)
3,585	1,879	2,633	2,365	102,520 (1896)		4,595	9,327	6,358 (531)	2,212	5,342	3,265	4,921	4,074	40,094 (531)
4,263	4,541	2,968	1,999	96,029 (382)	(	2,860	9,045	6,728 (558)	1,976	4,725	3,309	2,742	3,883	35,268 (558)
5,455	6,819	3,410	2,046	146,470		5,455	12,274	5,455	4,910	5,455	5,728	6,819	4,091	50,187
Shamli Distillery & Chemical Works Ltd., Shamli	Sir Shadilal Distillery Ltd., Mansurpur	Simbhaoli Distillery Ltd., Simbhaoli	Standard Refinery & Distillery Ltd., Unnao	Sub-rotal	Maharashtra	Brihan Maharashtra Sugar Syndicate Ltd., Shree- pur	Government Distillery, Chitali	Kolhapur Sugar Mills Ltd., Kolhapur	Maharashtra Sugar Mills Ltd., Tilaknagar	Polychem Ltd., Nira	Shetkari Sahakari Sakhar Karkhana Ltd., Sangli	Somaiya Organo Chemicals Ltd., Sakarwadi .	Walchandnagar Industries Ltd., Walchandnagar .	SUB-TOTAL .
18	19	20	21			22	23	24	25	26	27	28	29	

APPENDIX 6-contd.

ļ						(To 1	(In kilo litres)
S.	. Name of the Distillery	Annual installed .		Production of rectified spirit	of rectific	d spirit	<b>!</b>
ž		capacity as on 1-1-1969	1965	1966	1961	1968	1969 (January-August)
	Andhra Pradesh						
30	Anakapalle Co-operative Agricultural & Industrial Society Ltd., Anakapalle	655	449	314	255	1,529	217
31	Andhra Sugars Ltd., Tanuku	3,637	4,110	3,284	1,968	2,827	1,236
32	Deccan Sugar & Abkhari Co. Ltd., Samalkot	2,182	456	511	992	559	. 87
33	Govt. Power Alcohol Factory, Shakamagar :	10,365	8,758	7,711	2,567	4,865	2,272
×	Government Distillery, Narayanguda	2,046	989	Ë	Ë	38	Z.A.
35	K. C. P. Ltd., Vuyyuru	4,637	2,139	4,534	Ë	752	1,888
36	Sarvaraya Sugars Ltd., Chelluru	2,182	1,968	ž	ï	2,189	1,492
37	Sri Rama Sugars & Industries Limited, Bobbili	1,364	383	422	285	213	260
38	Hindustan Polymer Limited, Pendurthi	6,801	Ë	Ē	81	1,527	N.A.
	SUB-TOTAL .	33,869	18,899	16,776	5,922	14,499	7,452

Mysor

39	39 India Sugars & Refineries Ltd., Hospet .	4,910	2,358	Ë	Ë	Z.	2,453
40	Mysore Sugar Co. Ltd., Mandya	5,455	2,426 (71)	4,027 (31)	II.	Ë	4,483
41	Ugar Sugar Works Lid., Ugar-Khurd.	6,819	4,559	5,748	3,374	4,878	2,073
	SUB-TOTAL	17,184	9,343	9,775 (1E)	3,374	4,878	600'6
	Bihar						,
42	Behar Sugar Works,	2,274	2,581	2,677	1,830	226	1,038
43	Cawnpore Sugar Works Ltd., Marhowrah .	1,864	Ä	Ξ̈̈́Z	ΪŻ	Z	N.A.
44	New Swadeshi Sugar Mills Ltd., Narkatiaganj	4,364	5,045	900'9	2,466	Z	1,960
45	Ranchi Distillery, Ranchi	1,718	Ē	Ē	2,466	Ë	Z.A.
46	S. K. G. Sugar Ltd., Patna	4,309	3,728	3,386	3,514	2,734	2,335
	SUB-TOTAL .	14,529	11,354	12,069	10,276	2,960	5,333

APPENDIX 6--contd.

					(In	(In kilo litres)
	Annual installed —		Production	Production of rectified spirit	d spirit	•
	capacity as on 1-1-1969	1965	1966	1967	1968	1969 (January- August)
Tamil Nadu East India Distillery Parry Ltd., Nellikuppam	4,527	3,686	3,975	3,941	4,169	2,486
48 Trichy Distilleries & Chemicals Ltd., Tiruchirapally	6,000	Ž	1,119	8,277	11,392	4,800
SUB-TOTAL	13,527	3,686	5,094	12,218	15,561	7,286
50 Bhagat Industrial Corporation Ltd., Khasa	. 2,727	2,819	3,987 952	3,490 Nil	6,444	3,679
SUB-TOTAL	7,237	3,660	4,939	3,490	8,238	5,360

Madhya Pradesh

51	51 Central India Chemicals Ltd., Sehore	hore .	•	818	Ē	Ë	Ž	Ë	Z.A.
52	Cox Distillery, Nowgong	•	•	1,091	517	503	480	Ë	Z.A
53	Govt. Alcohol Factory, Ratlam	•	•	4,910	2,472	3,349	4,464	1,925	1,635
		SUB-TOTAL	i .	6,819	2,989	3,852	4,944	1,925	1,635
	West Bengal	सन्यमेव जयते		d to the					
54	54 Carew & Co. Ltd., Asansol .		6	3,382	2,251	2,798	2,414	1,666	1,626
55	Eastern Distilleries (P) Ltd., Calcutta	ufta .	•	2,455	1,223	1,186	911	259	251
26	Shaw Wallace & Co. Ltd., Bhadrakali	akali .	•	982	1,646	1,557	1,367	348	N.A.
		SUB-TOTAL	•	6,819	5,120	5,541	4,692	2,273	1,877

APPENDIX 6-contd.

(In kilo litres)

		Annual		Production of rectified spirit	of rec	tified spiri	.: .:	
	(Statewise)	instatted capacity as on 1-1-1969	1965	1966	1967	1968	1969 (January- August)	
	Haryana	1	4					
ırna	57 Karnal Distillery Co. Ltd., Karnal	982	Ξ	Ë	1,301	Ë	190	
fodi S nagar	58 Modi Synthetics Fibre Corporation, Yamuna- nagar	5,455	Ä	Ë	Ë	3,087	2,880	
	SUB-TOTAL	6,437	Z	Z	1,301	3,087	3,070	
	Gujarat							
emb	59 Alembic Chemical Works Co. Ltd., Baroda-3	3,137	1,706	1,548	1,287	772 (125)	894 (172)	
rec Ltd.	Shree Bileshwar Khand Udyog Sahakari Mandli Ltd., Kodinar	3,240	:	347	1,715	2,326	1,831	
	SUB-TOTAT	6,377	1,706	1,895	3,002	3,098	2,725	

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61	61 Mc Dowell & Co. Ltd., Shertally	1,091	691	ïŻ	ΪŽ	Ë	264
62	62 Polson Distillery, Chalakudi • • •	818	421	361	501	333	249
63	Travancore Sugar & Chemical Ltd., Tiruvalla	1,730	1,234	1,090	1,082	812	268
	SUB-TOTAL .	3,639	2,346	1,451	1,583	1,145	1,081
	स						
2	Kajasinan The Ganganagar Sugar Mills Ltd., Sriganganagar.	851	757	1,128	1,149	1,419	763
65	Udaipur Distillery Co. (P) Ltd., Udaipur .	1,364	284	913	694	149	689
	SUB-TOTAL .	2,215	1,041	2,041	1,843	1,568	1,452
	GRAND TOTAL	315,309	191,441	206,047	145,175	157,043 (649)	151,762
	Note.—Figures in brackets indicate the production of absolute alcohol	e the produ	ction of ab	solute alcob	ol.		

NOTE.—Figures in brackets indicate the production of absolute alcohol, Source: As supplied by D. G. T. D.

### (Vide paragraph 8.6)

Suggestions of the All India Distillers' Association with regard to the procurement, distribution and transport of molasses.

### Procurement

- No molasses should be released for free sale purposes. Moreover the validity period of the old "Free sale" permits should not be extended.
- 2. Before starting of next sugar season the Dapartment should see that the book balance of molasses and the actual quantity/grade of molasses present in the tank should tally.

However no molasses should remain with any of the sugar factories by end of September so that the sugar factories may not have the chance to sell new molasses under the garb of old deteriorated molasses for trade purposes.

- 3. The sugar factories where such molasses is stored, should be asked to explain how their molasses have become sub-standard and effective and deterrent action should be taken against the sugar factories for their negligence by imposing heavier penalties.
  - In the event, deteriorated molasses have to be sold the money received should be utilised for creating proper storage facilities for molasses.
- 4. The Excise department should allow the distilleries to lift molasses for the past quota and it should not be allowed to lapse without proper investigation in cases where the molasses could not be lifted by the distilleries due to reasons beyond their control.

### Distribution

- The molasses should be allocated to various distilleries on pro-rate basis as per licensed capacity or installed capacity whichever is less.
- The allotment of molasses should be made to distilleries from the nearest sugar factories as such a practice would involve minimum transportexpenditure and more over molasses can be lifted promptly.
- The alloted molasses to each distillery should be from a minimum number of factories and as far as possible each sugar factory should be exclusively allotted to one particular distillery.
- 4. Where a distillery is attached to a sugar factory, the entire season's production of molasses of the sister sugar factory should be allotted to the distillery in the very first quarter of allotment without breaking

- it up into instalments, keeping in view the overall allotment as suggested in Item 1 of Distribution.
- 5. The allotment of molasses for free sale and trade purposes should be covered from khandsari units. In the event it becomes absolutely necessary to allot molasses for these purposes from a sugar factory, then due care should be taken to choose a sugar factory which is situated at a distance from the distillery.

### Transport

- 1. The sugar factories should allow the distilleries to lift molasses all the 24 hours during the crushing season.
- Lifting of molasses should also be allowed on Sundays and other holidays during season.
- 3. The fistilleries should be allowed to lift their own molasses from their attached sugar units at their convenience so that the maximum quantity of molasses can be lifted from other sugar factories before Monsoon.
- 4. The sugar factories should give complete co-operation to the distilleries regarding:
  - (a) Placing timely indents for tank wagons.
  - (b) Keep their molasses pumping equipment in good order.
  - (c) The sugar factories should not create conditions for trade release. They should not dilute molasses with water or allow it to be mixed with rain water.
- Effective measures should be taken to ensure that no tank wagons/ lorries are detained at the sugar factory for want of issuing timely gate passes. It is suggested that the Excise Sub-Inspectors need not sign the gate passes.

### Full utilisation of Pucca Storage capacity for molasses available in distilleries

If storage capacities are available with the distilleries for storage of molasses before the Monsoon, ad hoc allot ments of molasses should be issued for lifting molasses from such sugar factories which do not have pucca storage arrangement for molasses, so that the quantity of molasses likely to deteriorate due to seepage of wateris kept at the minimum.

### (Vide paragraph 11.1)

### Details regarding small scale units

State	Name of the unit	Annual installed capacity (In kilo litres)	Items manufactur- ed
Uttar Pradesh	(i) Allahabad Distilleries Association (P) Ltd., Allahabad.	750	N,A.
	*(ii) Captainganj Distillery, Captainganj,	15,456	Rectified spirit and potable liquor.
Madhya Pra- desh	*(i) Ratlam Alcohol Plant, Ratlam.	4,091	Rectified spirit, Denatured spirit, Indian made foreign liquors and spiced liquors.
	*(ii) Cox Distillry, Nowgong.	1,800	Country liquor.
	(iii) United Excise Distillery, Ujjain.	1,140	Country liquor plain and spiced.
	(iv) Lakshminarain Ram- narain, Seoni Distillery, Seoni.	450	Country spirit.
	(v) Gwalior Govt. Distillery, Gwalior.	129	Country liquor.
	(vi) Satna Alcohol Industries Satna.	••	Ditto.
Kerala .	*Polsons Distillery, Chala kudy.	- 1,350	Rectified spirit, Denatured and methylated spirit and pota- ble liquor.
Jammu and Kashmir	Kashmir Fruit and Chemical Industries Ltd., Bohri.	324	Indian made foreign spirits and Beer.

<sup>\*</sup>These names also figure in the list of units reported by the D.G.T.D. (Vide Appendix 6) though capacity reported is different.

Source : D.C.S.S.I.

APPENDIX 9

(Vide paragraph 13.4)

Revised estimates of the availability of molasses and alcohol as well as demand for alcohol during the sugar season 1968-69

Name of the State	Estimated Production of molasses	Molasses required for distillery purposes		Distillery capacity	Molasses Distillery Estimated required capacity production for non-distillery alcohol purposes	Demand for alcohol	Deficit or Surplus	Molasses (-) deficit or (+) Surplus
	(lac tonnes)	(lac tonnes)	(lac tonnes)	(M. Gallons)	(M. Gallons)		(M. (M. Gallons) Gallons)	(lac tonnes)
1	2	व <sub>स्त्</sub> नः	1	s.	9	7	∞	, 6
1. Uttar Pradesh .	4.4	6.8	0.1	34.0	22.0	26.0 ()	4.000 (—)	-) 2.500
2. Maharashtra .	3.400	2.51	0.20	13.72	12.5	11.0 (+)	1.5 (+)	P) 0.690
3. Andhra Pradesh .	1.35	1.49	:	7.45	97.9	6.0 (+)	92.0	(→) 0.14
4. Mysore	8.0	1.004	0.024	5.0	4.00	2.0 (+)	2.0	(—) 0.228
5. Bihar	1.068	0.64	;	3.2	3.2	2.5 (+)	0.700	(+) 0.428
6. Tamil Nadu.	1.35	0.70	0.02	3.0	3.50	2.5 (+)	1.0	(+) 0.63
7. Punjab	0.16	0.32	0.05	1.8	8.0	1.75 (—)	0.95 (_)	—) 0.21

## APPENDIX 9-contd.

-			7	e e	4	8	9	7	∞			6
8. Madhya Pradesh	adesh .		0.016	0.30	.0.05	1.50	90.0	1.0	1	(-) 0.92	I	0.334
9. West Bengal	Ta	•	0.032	0.58	0.24	2.60	0.260	11.0	1	10.74	1	0.788
0. Haryana	•	•	0.24	0.28	0.05	1.42	1.2	0.7	£	0.50	Ţ	90.0
1. Gujarat	•	•	0.192	0.223	0.13	1.19	0.960	2.00	<u> </u>	1.0	1	0.161
2. Kerala		•	0.032	0.09	0.01	876.0	0.128	0.4	Ţ	0.272 ()	I	0.068
3. Rajasthan	•	٠	0.052	0.24	0.01	1.2	0.26	1.2	$\mathfrak{I}$	0.94	1	0, 198
4. Assam		•	0.041	0.01	0.005	₹     ()	200	0.5	1	0.50	$\pm$	0.026
5. Orissa	•	•	0.044	0.05	0.032		0.22	0.1	$\pm$	0.12	1	0.038
6. Himachal Pradesh	Pradesh	•	:	7	0.04		:	0.13	$\hat{\mathbb{I}}$	0.13	Ţ	0.040
7. Jammu and Kashmir	d Kashmi	•	:	:	;	:	:	0.24	Ĵ	0.24		;
18. Nagaland	•	٠	:	:	:	:	:	0.013	0.013 ()	0.013		:
19. Manipur	•	•	:	:	:	;	;	0.03	0.03 ()	0.03		:
20. Tripura	•	•	:	:	:	:	:	0.04	0.04	0.04		:
21. Sikkim		٠	:	:	:	:	:	0.15	ĵ	0.15		:
22. Bhutan	•	•	:	:	:	:	:	0.03	I	0.05		:

:	(+) <b>9</b> .060	<b>–)</b> 2.931			e Ministers'
0.60 (-) 0.60	·: :	55.868 69.903 (—) 14.035 (—) 2.931 253976 (347779 (—) 63803 5.16.) IE.16.)	-) 4.761 +) 1.834	2.927	(NOTE.—This statement was included as Annexure I to the Agenda papers circulated for the State Excise Ministers'
:	:		Molasses. (-) 4.761 (+) 1.834	Delicit.	ers circula
:	;	0.931 77.058 (350306 K.1s.)	2	A	Ageada pap
:	:	0.931	A		I to the
:	:	13.237 15.237	Alcohol . (+) 6.580 (-)20.615	14.035	as Annexure
;	0.060	13.237	cohol .	Deficit .	vas included
•	•	•	<b>⋖</b>	Д	ent
•	•	Total			sstatem
23. Delhi	24. Pondicherry				(Norg.—Thi

Conference held in New Delhi on 19th May, 1969.)

APPEN
(Vide Paragraphs

uantity and Value of imports and exports of alcohol during the

### Quantity and Value of imports and exports of alcohol during the and destination

A.	IM

						1965		190	56
Articles an which			s from	n		Quantity (Kg.)	Value (Rs.)	5 months (Jan May '66	
						·		Quantity (Kg.)	Value (Rs.)
		1				2	3	4	5
Ethyl Alcohol u	ınden	atured	,						
U.K	•		٠	٠	•	125 (0•.162)	1,562	•	
U.S.A	•	•	•	•	•	COTTON SO.	1.4	••	•
Brazil .	•		•	3	4	128 E	A	••.	
			Тот	AL	ęĸ	(0· 162)	1,562	**	
Ethyl Alcohol	denati	ured			88	1.00	7		
Belgium .	•	•	•	•	Y	79536307067		••	
Brazii				•	-)	114666		••	
France		•		•	g de	ET EN	B		
Federal Repu	blic c	of Gos	many	. 1			5)	• •	•
Hungary		•			4	10,298 (13°361)	10,51,424	••	
Netherlands		•	•	•	ē	17 (0·022)	398	••	•
Singapore	•	•	•	•	•	••	<u>:</u> •	••	•
Sweden	•	•	•	•	•	10 (0·013)	61	. ••	•
Switzerland	•	•	•	•		27 (0·035)	415	••	•
U.K.	•	•	•	•	•	728 (0·944)	700	••	•
U.S.A.	•	•	•	•	•	25 (0·032)	57	••	•
Australia	•	•	•	•	•				
			To	ΓAL	•	11,105 (14,407)	10,53,055	••	•

DIX 10 15.1 and 16.1) years 1965, 1966, 1967 1968, and 1969 (January-March) by source respectively

### PORTS

1966		1	967	1	968	1969 (Jan March	
7 months (J Dec. '66	uno '66 to )	Quantity (kg.)	Value (Rs.)	Quantity (kg.)	Value (Rs.)	Quantity (kg.)	Value (Rs.)
Quantity (Kg)	Value (Rs.)						
6	7	.8	9	10	- 11	12	13
			••	100 (0·130)	1,718		
••	• •		••	9,686,110 (12566 981)	94,20,642		
• •	••		0	13,997,000 (181 <b>6</b> 0·030)	131,99,808	••	••
. ,				23,683,210 (30727 141	226,22,168	••	
480 (0·623)	868	• •				••	.,
	••	5,127,256 (6652·220)	44,87,662	17 17 17	• • • • • • • • • • • • • • • • • • • •	••	••
••		••	13/19	112 (0·145)	. 520	• •.	
	••	225 (0·292)	525	10,000 (12·974)	18,029	••;	
••	••	• •	Burn and		••	**	••
							••
• •	••		स्यम	4,173 (5•414)	7,590	4,082 (5°296)	7,425
• •	**	••	••	• •	••	• •	••
••	••	200 (0·259)	3,315	••	••	••	••
		16,471 (21·370)	43,661	16,329 (21·186)	45,065	- •	••
	••	17 (0·022)	308	(21 100) (10,229 (13:217)	9,98,499	••	••
••	••		••	••		109,100 (141·549)	9,48,050
480 (0·623)	868	5,144,169 (6674·163)	45,35,471	40,843 (52·990)	10,69,703	113,182 (146· 845)	9,55,47

### BEX-

							196	5	1966	<b>;</b>
Atti cles	and	exbo	tries t	d which	h		Quantity	Value	(Pre-devaluat	ion)
							(Kg.)	(Rs.)	5 months (Jan May 66)	.'65 to
								•	Quantity (Kg.)	Value (Rs.)
			1				2	3	4	5
Ethyl Alcoh	ol i	indend	tured							
Ceylon		•		•	•	٠	60,000 (77·845)	46,296	••	••
U.K.	•	•				٠	and 100 to 100 t	••	••	••
U.S.A.					8			£2	••	••
				Тота	AL.		60,000 (77·845)	46,296		
Ethyl Alcoh	ol d	enatu	ređ			B		g.		
Ceylon	•	•		٠	•	-	193,995 (251·694)	2,03,412	60,000 (77·845)	46,905
Nepal	•		•	•		Æ.	2,273 (2·949)	1,446	••	••
U.K.	•	٠	•	•	. 1	W	1,710,000 (2218.593)	9,44,394	1,212,000 (1572·477)	5,30,960
U,S.A.	•	•	•	•	•	ē	त्यमेव जयते	-	••	
				Tota	L.		1,906,268 (2473·236)	11,49,252	1,272,000 (1650·322)	577,865

(Source : D.G.C.I.&S., Calcutta)

Note 1.—Figures upto May, 1966 are in terms of rupees prior to devaluation and are therefore not comparable with those for the subsequent period.

### 10-contd.

### **PORTS**

19	966		1967	19	68	1969 (Jan March 19	1. '69 to 169)
(Post devalu	ation)	Quantit (Kg.)		Quantity	Valuo	Quanti	
7 months (J December	une '66 to '66)	(Kg.)	(Rs.)	(Kg.)	(Rs.)	(Kg.)	(Rs.)
Quantity (Kg.)	Value (Rs.)						
6	7	8	9	10	11	12	13
				••			••
2,448,344 (3,176·538)	19,21,797	••	ection .		••		
4,550,000 (5903·274)	27,65,917	6,159,715 (7991·756)	37,62,108		••	**	
6,998,344 (9079·812)	46,87,714	6,159,715 (7991·756)	37,62,108		••		
45,760 (59•370	38,187	•	MA	M	••	••	
••	••	,.		12.17	••	••	••
••	••	• •		150		••	••
,962,600 2346 322)	11,81,481	••	सद्यमेव	नयने	••	••	••
2,008,360 (2605·692)	12,19,668	••	.,				•••

Note 2.—Figures in brackets are in kilo litres. These are arrived at by applying the ratio of 198,000 tons=261,000 kilolitres as indicated in para 9.4 of our last report (1965).

<sup>3.-</sup>Figures for the year 1968 are under verification.

APPENDIX 11

(Vide paragraph 24.1.2.1)

Statewise production of molasses for each of the years 1965-66 to 1968-69

(In thousand tonnes).

	State	te							1965-66	1966-67	1967-68	1968-69 (estimated) (Upto 30-4-69)	
(						- NE	8		2	60	4	5	
	1. Uttar Pradesh .			•	4:4+	1130/3			596	289	321	428	Ţ
7	2. Maharashtra .	•	•	•	19 9			N	276	199	193	342	40
€.	3. Andhra Pradesh.	•	٠	٠	144				137	69	87	122	
4	4. Mysore	•	•	•	•	"	Ŋ.		99	7.7	34	65	
'n	5. Bihar	•		•	•	•	•		168	87	19	<u>2</u>	
6	6. Tamil Nadu	•	•	•	•				128	88	86	85	
7.	7. Punjab	•	•	•	. •	•			37	16	13	15	
∞́	8. Madhya Pradesh	•	•	•	•	•			18	3	7	9	
9.	9. West Bengal	٠	•	•					୍ୟ	m	m	· m	
<u>.</u>	10. Haryana .	•	•	•	•	•			36	18	77	22	

11. Gujarat	•	•			•			•	23	18	19	ধ	
12. Kerala	•	٠				•	•		13	9	4	en	
13. Rajasthan	•			•	•	. •	•		11	٧,	7	<b>5</b>	
14. Orissa .		•		•		•			9	у.	· m	. •	
15. Assam	•	•		•			. •	٠.	4	က	7	7	
16. Pondicherry	•	•	•						9	٠	4	9	
						1			W.				
					स		TOTAL	'AL	1,530	839	198	1239	
Note.—The production of molasses during 1968 (Source: Directorate of Sugar and Vanaspati)	produ	ction ate of	of mol	asses	during	g 1968	-69 is	expect	ted to be arour	Note.—The production of molasses during 1968-69 is expected to be around 14.39 lakh tonnes. (Source: Directorate of Sugar and Vanasnati).	mes.		7.4.

# (Vide Paragraph 27.2.1)

# Particulars of rates of important duties prevailing in various states

ź	Name of the State	Rate of Excise Duty	Vend fee/ Licence fee/ Literage	Export Duty	Sales Tax	Other levies
ا _ ا	2	6	*	\$	9	7
<b>→</b>	Uttar Pradesh	. Rs. 21 per L.P.litre still head duty on rectified spirit.	Vend fee of Rs. 1-10 paise per bulklite on denatured spirit issued for use in the. State.	Re. 0.25 export daty per I. P. Litte on rectified spirit and anexport passfeed Re. 0.10 per bulk litte on denatured spirit.	3%	:
74	Maharashtra	. Rs. 15.50 per prooflitre on reciffed spirit and absolute alcohol.	)//\( 		:	Transport fee of Re. 0.25 per proof lites. Special fee of Re. 0.41 per bulk litre on rectified abolute alcohol.
m	Mysore .	. Rs. 7.3 per litre on abso- lute alcohol and re- ctified spirit.	}	Re. 7.3 per litre on absolute alcohol and rectified spirit.	3% on sale price of absolute alcohol and rectified spirit.	:
*	Mkar .	. Rs. 7 per L. P. litre on absolute alcohol and rectified spirit.	:	Re. 0.75 per L. P. Litre on rectified spirit.	% %	:
vo.	Tamil Nadu	. Rs. 8, per proof litte on rectified spirit.	Rs. 12.50 licence fee	:	:	Gallonage fee of Re. 1 per bulk litre.
9	Punjab	Rs. 5.40 per prooflitre ourectified spirit.	(a) Vend fee-Nil. (b) Fixed licence fee of Rs. 25/- per annum per licence.	Re, 0.03 paise per prooflitre.	. :	:

:	Literage Rs. 14 56 per bulk litre.		Nil.	50% on absolute R.S.T. 1/4 on abalcohol 15% on solute alcohol and readified spirit. Transport fee of 6.22 paise per proof litte.	50% on alcohol at Gallonage fee of Rs. the point of first 2.50 per bulk litter sale in the stage. on absolute alcohol and rectafted spirit.	25% on absoluteal- cohol and rectified spirit	:	Nil. Mil.
Re. 0. 11 per proof litre on rectified spirit.	Re. 0.45 per baik litre.			30% alc ra	50% ihe sak	Re. 0. 10 per L. P. litre 25% cohe spir	÷	Export pass fee of Re. 0.50 per bulk litte
:	:	:		/म्.(१)( १८०३() स्योग्न जग		:	:	:
Rs. 3.85 per proof litre on rectified spirit.	Rectified Spirit.  (i) When used in the manufacture of L.M. F.L.—Ks. 21 per L.P. Litre.	(ii) When used for industrial and scientific purposes Ro. 1:10 L.P. Litre.	Rs. 7 per proof litre on rectificed spirit and absolute alcohol.	Rs. 15.00 per proof litre on rectified spirit (in- cluding absolute alcohol)	Rs 15.50 per proof litre on absolute alcohol and rectified spirit.	. Rs.18.50 per L.P.litre	Pra- Rs. 5.50 per proof litte on absolute alcohol and rectified splrit.	. Rs. 16 per L.P. litre on rectified spirit.
7 Machya Pradosh	West Bengal		9 Haryans	10 Gujarat	11 Kerala .	12 Rajasthan	13 Himachal Pra- desh	14 Orissa
7	<b>50</b>		9	10	=	2	2	7

### (Vide Paragraph 34.3.2)

### Statement showing fair ex-works prices payable to the different distilleries

\$1. No		State	Production indicated for working out the incidence of excise staff payment.  (kilolitres)
1	2	3	4
A	. Distillerles for whom the price of Rs. 215/- per K. Litre (100%) of rectified spirit is appli- cable.		
1	Daurala Sugar Works (Distillery), Daurala .	Uttar Pradesh	13,558
2	Central Distillery and Chemical Works Ltd., Mcerut Cantt.	29 -	8,677
3	Ajudhia Distillery, Rajakasahaspur, (Distt. Moradabad).	**	4,519
4	Narang Industries Ltd., Nawabganj (Distt. Gonda).	73	4,971
5	Captainganj Distillery Ltd., Captainganj (Dist. Deoria).	. **	10,244
6	Oudh Sugar Mills Ltd., Hargaon (Distt. Sitapur).	,,	10,546
7	Hindustan Sugar Mills Ltd., Golagokaran- nath (Distt. Kheri).	,,	13,558
8	Kesar Sugar Works Ltd., Baheri (Distt. Bareilly).	,,	6,780

### APPENDIX 13-contd.

1	2	3	4
9	Rampur Distillery and Chemical Co. Rampur.	Uttar Pradesh	9,038
10	Saraya Distillery, Sardarnagar (Distt. Gorakhpur).		15,065
11	Alco Chem Limited, Seohara, (Distt. Bijnor).	*,	9,943
12	Sir Shadi Lal Distillery and Chemical Works, Mansurpur, (Distt. Muzaffarnagar),	,,	8,135
13	S.K.G. Distillery, Lauriya, P.O. Lauriya (Distt. Champaran).	Bihar	6,026
14	Kolhapur Sugar Mills Ltd., Kasba Bavada, Kolhapur-3.	Maharashtra	6,327
15	Brihan Maharashtra Sugar Syndicate Ltd., Shreepur (Distt. Sholapur).	1,	4,519
16	Somaya Organo Chemicals Ltd., Sakarwadi (Distt. Ahmednagar).		5,424
17	Polychem Limited (Distillery), Nira (Distillery), Nira (Distillery),	* **	6,026
18	Government Distillery, Chitali.	3,	8,135
19	Government Power Alcohol Factory, Shakar-nagar (Distt. Nizamabad).	Andhra Pra- desh.	6,870
20	Hindustan Polymers Limited, Pendurthi Road, Visakhapatanam.	**	6,628
21	Trichy Distilleries and Chemicals Co., Senthannipuram, Golden Rock, Tiruchirapally-4.	Tamil Nadu	9,038
22	Mysore Sugar Co. Ltd., Mandya	Mysore	9,038
23	Ugar Sugar Works Ltd., Ugar-Khurd (Distt. Belgaum).	,,	4,519
24	Jagatjit Distillery, Jagatjit-Nagar (Distt. Kapurthala).	Punjab	6,026
25	Modi Synthetic Fibre Corporation, Yamunanagar, (Distt. Ambala).	Haryana	4,519

### APPENDIX 13-conid.

1	2	3	4
В.	Distilleries for whom the extra price of Rs. 25/-or(Rs. 240/-) per Kilo Litre (100%) is applicable (Vide paragraph 34.7.2)		
1	Simbholi Distillery Ltd., Simbholi (Distt. Mecrut).	Uttar Pradesh	2,802
2	Shamli Distillery and Chemical Works Ltd., Shamli (Distt. Muzaffarnagar).	**	3,615
3	Mohan Meakin Brewaries Ltd., Lucknow Distillery, Dollygunj, Lucknow.	**	2,711
4	Standard Refinery and Distillery Ltd., Unnao.	,,	2,983
5	Mohan Meakin Brewaries Ltd., Mohannagar (Ghaziabad).	,,	2,639
6	Carew and Co. Ltd., Rosa, (Distt. Shaha-jahanpur).	1,	2,772
7	Co-operative Co. Ltd., (Distillery) Saharan- pur.	**	2,187
8	Pilkhani Distillery and Chemical Works, Pilkhani, (Distt. Saharanpur).	**	3,616
9	Faizahabad Distillery, Faizabad ,	#1	181
10	Modi Distillery, Modinagar	12	3,616
11	S.K.G. Distillery, Hathwa, P.O. Mirganj (Distt. Saran).	Bihar	3,616
12	Behar Sugar Works Ltd., Pachrukhi (Distt. Saran).	•	1,506
13	Ranchi Distillery, Post Box No. 72, Ranchi	**	1,139
14	New Swadeshi Sugar Mills Ltd., Narkati- ganj (Distt. Champaran).	,,	4,068
15	Walchandnagar Industries Ltd., Walchand- nagar (Distt. Poona).	Maharashtza	3,558
16	Maharashtra Sugar Mills Ltd., Tilaknagar (Distt. Ahmednagar).	**	2,717
17	Shetkari Sahkari Sakhar Karkhana Ltd., Sangli.	11	3,163

### APPENDIX 13-canid

1	2	3	4
18	Alembic Chemical Works Co. Ltd., Alambic Road, Baroda-3.	Gujarat	2,260
19	Shree Bileshwar Khand Udyog Sahakari Mandli Ltd. Kodinar.	11	1,205
20	Shaw Wallace and Co. Ltd., Bhadrakali (Distt. Hooghly).	West Bengal	651
21	Carew and Co. Ltd., Asansol	11	1,922
22	Eastern Distilleries Pvt. Ltd., Rusa Distillery, Calcutta-53.	17	151
23	K.C.P. Limited, Vuyyuru (Distt. Krishna)	Andhra Pra- desh.	3,673
24	Deccan Sugar and Abkhari Co. Ltd., Samalkot (Distt. West Godavari)	, ,,	1,326
25	Government Distillery, Narayanguda .	,,	1,356
26	Anakapalle Co-operative Agricultural and Industrial Society Ltd., Thummappala, Anakapalle, (Distt. Visakhapatnam).	**	362
27	Sri Rama Sugars and Industries Ltd., Bobhili, (Distt. Srikakulam).	**	904
28	Andhra Sugars Ltd., (Distillery) Venkatara- yapuram, Tanuku.	**	3,254
29	Sarvarya Sugars Ltd., Chelluru (Distt. Godavari East).	**	2,711
30	Streenivasa Distilleries, Chittoor	1,	904
31	E.I.D. Parry Ltd., Nellikuppam	Tamil Nadu	2,711
32	Travancore Sugars and Chemical Ltd., Tiruvala.	Kerala	1,139
33	Polson Distillery, Post Box No. 6, Chalakudi.	**	542
34	Mc Dowell and Co. Ltd., (Distillery) Shortally. (Distt. Alleppy).	"	596
35	India Sugars Refineries Ltd., Hospet (Distt. Bellary)	Mysore	3,254

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### APPENDIX 13-contd.

1	2	3	4
36	Bhagat Industrial Corporation Ltd., P.O. Distillery, Khasa (Amritsar).	Punjab	4,068
37	Karnal Distillery Co. Ltd., Karnal	Haryana	651
38	Cox Distillery, Nowgong	Madhya Pradesh	723
39	Madhya Pradesh State Ind. Corp. Ltd., Ratlam Alcohol Plant, Ratlam.	***	3,254
40	Ganganagar Sugar Mills Ltd., Sriganganagar (Rajasthan).	Rajasthan	2,260
41	Udaipur Distillery Co. Pvt. Ltd., Udaisagar Road, P.B. No. 1, Udaipur.	**	904

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N.B.—Production indicated is 100% rectified spirit.

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