Dr. Anjali Prasad Department of Economics TPS College, Patna Topic:-**Industrial Policies.** Class:-BA Part 2 Hons.

Sugar Industry in India: Growth, Problems and Distribution:

Sugar can be produced from sugarcane, sugar-beet or any other crop having sugar content. But in India, sugarcane is the main source of sugar. At present, this is the second largest agro-based industry of India after cotton textile industry.

India is the world's largest producer of sugarcane and second largest producer of sugar after Cuba. But India becomes the largest producer if gur and khandsari are also included. This industry involves a total capital investment of Rs. 1,250 crore and provides employment to 2.86 lakh workers. In addition, 2.50 crore sugarcane growers also get benefit from this industry.

Growth and Development:

India has a long tradition of manufacturing sugar. References of sugar making by the Indians are found even in the Atharva Veda. India is rightly called the homeland of sugar. But in ancient times, only gur and khandsari were made and modem sugar industry came on the Indian scene only in the middle of the 19th century, when it was introduced by the Dutch in North Bihar in about 1840.

Unfortunately, this attempt could not succeed. The first successful attempt was made by the indigo planters at the initiative of Britishers in 1903 when Vacuum pan mills were started at Pursa, Pratabpur, Barachakia and Marhowrah and Rose in north-eastern U.P. and the adjoining Bihar. This happened when demand for indigo ceased to exist due to the introduction of synthetic blue in the market. In the early years of the 20th century, the industry grew rather sluggishly and there were only 18 mills in 1920-21 and 29 mills in 1930-31. The industry got a great fillip after the fiscal protection in 1931 and the number of mills rose to 137 in 1936-37. The production also shot up from 1.58 lakh tonnes to 9.19 lakh tonnes during the same period.

The industry passed through an uncertain phase during and after the World War II and some stability was experienced only after 1950-51. There were 139 mills producing 11.34 lakh tonnes of sugar in 1950-51. After that, the plan period started and the industry made rapid strides. In the year 1994-95, there were 420 mills producing 148 lakh tonnes of sugar.

Table 27.28 shows that the year to year figures reveal great variations in production although there has been a steady increase in production on the long term basis.

YEAR	Production			
1950-51	11.34			
1960-61	30.29			
1970-71	37.4			
1980-81	51.48			
MO-91	120.47			
1996-97	153.03			
MI-98	131.60			
1998-98	155.20 175 192			
1999-00				
2000-01				
2001-02	185			
2002-03	189			

Table 27.28 Production of Sugar in India (lakh tonnes):

Localisation of Sugar Industry:

Sugar industry in India is based on sugarcane which is a heavy, low value, weight losing and perishable raw material. Sugarcane cannot be stored for long as the loss of sucrose content is inevitable. Besides, it cannot be transported over long distances because any increase in transportation cost would raise the cost of production and the sugarcane may dry up on the way. It is estimated that 50 per cent cost of production is accounted for by sugarcane alone. Normally, it requires about 100 tonnes of sugarcane to produce 10-12 tonnes of sugar. Even today most of sugarcane is transported with the help of bullock carts and cannot be carried beyond 20-25 km. The introduction of tractor- trolleys, trucks and even railway wagon have increased the distance covered by sugarcane to 70-75 kms. beyond which the transportation cost would increase exorbitantly. Therefore, the sugar industry is established in areas of sugarcane cultivation.

Distribution:

Figure 27.17 and Table 27.29 make it amply clear that sugar industry has two major areas of concentration. One comprises Uttar Pradesh, Bihar, Haryana and Punjab in the north and the other that of Maharashtra, Karnataka, Tamil Nadu and Andhra Pradesh in the south.

Table 27.29 Distribution of Sugar Industry in India, 2002-03:

State	Production in lakh tonnes	Percentage of all India	No. of factories	Duration of crushing season in days	Recove ry of sugar (% of cane)	Yield of sugar in tonnes pe hectare
Maharash ra	65.81	34.82	105	200	10.70	9.47
Uttar Pradesh	45.69	24.17	110	176	9.05	5.25
Famil Nadu	17.65	9.34	32	175	9.37	9.53
Karnatak 1	11.51	6.09	30	134	10.38	7.15
Andhra Pradesh	11.36	6.01	35	108	9.99	5.02
Gujarat	10.51	5.56	16	166	10.95	8.88
Haryana	3.61	1.91	8	175	9.77	5.21
Punjab	3.55	1.88	13	145	9.13	5.13
Bihar	3.28	1.74	28	99	8.99 '	4.76
Others	16.03	8.48	43	_	_	-
All India	189.00	100.00	420	158	9.89	630

Problems of Sugar Industry:

Sugar industry in India is plagued with several serious and complicated problems which call for immediate attention and rational solutions. Some of the burning problems are briefly described as under:

1. Low Yield of Sugarcane:

Although India has the largest area under sugarcane cultivation, the yield per hectare is extremely low as compared to some of the major sugarcane producing countries of the world. For example, India's yield is only 64.5 tonnes/hectare as compared to 90 tonnes in Java and 121 tonnes in Hawaii.

This leads to low overall production and results in short supply of sugarcane to sugar mills. Efforts are being made to solve this problem through the introduction of high yielding, early maturing, frost resistant and high sucrose content varieties of sugarcane as well as by controlling diseases and pests which are harmful for sugarcane.

2. Short crushing season:

Manufacturing of sugar is a seasonal phenomena with a short crushing season varying normally from 4 to 7 months in a year. The mills and its workers remain idle during the remaining period of the year, thus creating financial problems for the industry as a whole. One possible method to increase the crushing season is to sow and harvest sugarcane at proper intervals in different areas adjoining the sugar mill. This will increase the duration of supply of sugarcane to sugar mills.

3. Fluctuating Production Trends:

Sugarcane has to compete with several other food and cash crops like cotton, oil seeds, rice, etc. Consequently, the land available to sugarcane cultivation is not the same and the total production of sugarcane fluctuates. This affects the supply of sugarcane to the mills and the production of sugar also varies from year to year.

4. Low rate of recovery:

It is clear from Table 27.29 that the average rate of recovery in India is less than ten per cent which is quite low as compared to other major sugar producing countries. For example recovery rate is as high as 14-16 per cent in Java, Hawaii and Australia.

5. High cost of Production:

High cost of sugarcane, inefficient technology, uneconomic process of production and heavy excise duty result in high cost of manufacturing. The production cost of sugar in India is one of the highest in the world. Intense research is required to increase the sugarcane production in the agricultural field and to introduce new technology of production efficiency in the sugar mills. Production cost can also be reduced through proper utilisation of by- products of the industry.

For example, bagasse can be used for manufacturing paper pulp, insulating board, plastic, carbon cortex etc. Molasses comprise another important by-product which can be gainfully used for the manufacture of power alcohol.

This, in its turn, is useful in manufacturing DDT, acetate rayon, polythene, synthetic rubber, plastics, toilet preparations, etc. It can also be utilised for conversion into edible molasses and cattle feed. Press-mud can be used for extracting wax.

6. Small and uneconomic size of mills:

Most of the sugar mills in India are of small size with a capacity of 1,000 to 1,500 tonnes per day. This makes large scale production uneconomic. Many of the mills are economically not viable.

7. Old and obsolete machinery:

Most of the machinery used in Indian sugar mills, particularly those of Uttar Pradesh and Bihar is old and obsolete, being 50-60 years old and needs rehabilitation. But low margin of profit prevents several mill owners from replacing the old machinery by the new one.

8. Competition with Khandsari and Gur:

Khandsari and gur have been manufactured in rural India much before the advent of sugar industry in the organised sector. Since khandsari industry is free from excise duty, it can offer higher prices of cane to the cane growers.

Further, cane growers themselves use cane for manufacturing gur and save on labour cost which is not possible in sugar industry. It is estimated that about 60 per cent of the cane grown in India is used for making khandsari and gur and the organised sugar industry is deprived of sufficient supply of this basic raw material.

9. Regional imbalances in distribution:

Over half of sugar mills are located in Maharashtra and Uttar Pradesh and about 60 per cent of the production comes from these two states. On the other hand, there are several states in the north-east, Jammu and Kashmir and Orissa where there is no appreciable growth of this industry. This leads to regional imbalances which have their own implications.

10. Low per capita consumption:

The per capita annual consumption of sugar in India is only 16.3 kg as against 48.8 kg in the USA., 53.6 kg in U.K., 57.1 kg in Australia and 78.2 kg in Cuba and the world average of about 21,1 kg. This result in low market demand and creates problems of sale of sugar.