

CHAPTER - II

REVIEW OF SUGAR INDUSTRY IN INDIA

2.1 INTRODUCTION :

Sugar cane is the main source of sugar in India and holds prominent position as cash crop. Sugar industry is the second largest agro-based processing industry next to cotton and textile industry in India. It is seasonal industry based on perishable raw materials namely sugarcane. Agro-based industries include industrial activities based on the processing of agriculture raw materials and the manufacture of products required for the land and its people. It has also occupied a major place among India's large scale industries.

At present, India is one among the First Five major sugar producing countries in the world i.e. the Soviet Union, Brazil and Cuba in respect annual production of sugar.

Molasses an important by-product is utilised for production of alcohol and down stream chemicals. Bagasses another important by product apart from meeting the fuel requirements of the industry and offers the potential to generate additional power to supply for grid. It also offers tremendous potential to make the country self sufficient in its requirements of paper and news prints.

At present, there are about 378 sugar factories in India. Out of this about 209 are in the Co-operative sector, 101 in the private sector, 68 in public sector. It is an important industry in India. Around 357 sugar industries have produced about 85.00 lakh tonnes of sugar in the year 1966-1967.

2.2 IMPORTANCE OF SUGAR INDUSTRY IN INDIA :

The sugar industries have total investment of Rs. 2700.00 crores and produce annually output of Rs. 2200.00 crores. It's annual turnover is about Rs. 4000.00 crores. About 25 million cultivators are engaged in growing Sugar cane and supply about Rs. 1250.00 crores sugar cane to industry.

Sugar industry is an important source of revenue to Government, ^{it} is estimated that Government gets about Rs. 500.00 crores annually in the form of excise duty and purchase tax. It also provides foreign exchange earning of Rs. 1360.00 crores to Government treasury.

Mostly, sugar industry is labour intensive industry. It creates employment in rural areas. More than 7% India's rural population is engaged in sugar industry. It provides direct employment to about 3.50 lacks workers and indirect employment of about 2.5 crores of sugar cane cultivators. With the permission of Central Government, sugar factory may increase the working

capacity from 1350 M. tonnes to 2500 M. tonnes in the year 1987. Thus, 2500 tonnes of crushing capacity provides 1500 to 1600 persons direct employment and indirect employment of 2000 to 3000 persons in the form of harvesting and transport of cane.

Sugar cane is grown in all over India. Around 32.87 lakh hectares land is utilised for sugar cane cultivation. There are about 339 sugar factories working in the country and each deals with an average 200 villages.

Sugar industry also provides the basic inputs to a number of industries like confectionary sweetners, chocolates and so on.

It is agreed that sugar industry is an agro based industry par excellence and playing very important role in the rural development in India. It also provides leadership to the Co-operative movement in India.

2.3 HISTORICAL BACKGROUND : OF SUGAR INDUSTRY IN INDIA :

Sugar has been known to India since 2000 years but sugar industry is started functioning in the 19th century. Production technique of sugar cane is quite old in India. Therefore, India is the home of sugar cane and sugar manufacture which was recorded in ancient and prehistoric literature such as the Vedas. It has also been maintained the epics i.e. celestial sweets.

The word 'sugar' is derived from 'Sanskrit' word 'शुक्र' (SUKRA). Sugar is known in other countries with different names viz. 'Schakar' in Persian, 'Sukkar' in Arabic 'Sukar' in Assyrian, 'Saccharum' in Italian and so on. Reference of sugar cane are found long ago in the institutes of Manu and treatises of Charaka and Sushruta dealing with medicine.

Sugar also maintain in the record of Megasthenese and Arthashastra of Chanakya during the period 321-296 B.C. Alexander, the great European and his soliders were the first foreigners to find sugar cane in 327 B.C. when they came in India. "India is the art of high standard of sugar making" observed by Chinese Emperor TAI TSUNG (627-650 A.D.) recorded in Chinese encyclopedia of 16 century.

From above it will proved that India is berth place of manufacture of sugar cane and sugar.

2.4 PROBLEMS OF SUGAR INDUSTRY IN INDIA :

The main problems of sugar industry in India can be enumerated as follows :

A) WIDE FLUCTUATIONS IN PRODUCTION :

The quantum of production of sugar mainly depends upon the quantum of sugar cane grown; the magnitude of competition

from gur and Khandasari making industries; policy of the Government in the fixation of minimum price of sugar cane etc. Above all the uncertainties of rainfall still worsen the problem. As a result of all these factors the quantity of sugar cane fluctuates widely leading to corresponding wide fluctuations in the production of sugar. The following table shows the fluctuations experienced by the sugar industry during the last six years.

TABLE No. 2.1

SUGAR PRODUCTION IN INDIA

| <u>Year</u> | <u>Production (in lakh tonnes)</u> |
|-------------|------------------------------------|
| 1981 - 1982 | 84.3 |
| 1982 - 1983 | 82.2 |
| 1983 - 1984 | 59.1 |
| 1984 - 1985 | 61.4 |
| 1985 - 1986 | 70.1 |
| 1986 - 1987 | 85.00 |

SOURCE : Co-operative Sugar May 1989.

Above table shows wide fluctuations in sugar production. It is 84.3 lakh tonnes in 1981-1982 but it is decreased to 82.2 lakh tonnes in 1982-1983, 59.1 lakh tonnes in 1983-1984. However, it steadily rose to 61.4 lakh tonnes in 1984-1985, 70.1 lakh tonnes

in 1985-1986 and 85.00 lakh tonnes in 1986-1987. Thus it is seen that sugar production shows rapid ups and downs in the last few years.

B) High cost of sugar: The cost of production of sugar is also seems to be very high in our country. This is mainly due to :

1. Uneconomic nature of production in sugar factory.
2. Low yield and short crushing season.
3. The high price of sugar cane,
4. Low sugar cane recovery,
5. Heavy excise duties levied on sugar by Government, but the price of Indian sugar is higher than world price of sugar. Most of Cooperative sugar factories are becoming weapon of politics in the hands of different political parties who misuse the funds of the factories which leads indirectly to the cost of production.

C) RECOVERY RATE :

The recovery is the most important aspect in sugar industries which determines the production. It differs factory to factory and state to state. Following table supports this fact.

TABLE NO. 2.2AVERAGE RECOVERY OF SUGAR IN INDIA

| State | Average Recovery | Rank |
|----------------|------------------|------|
| Maharashtra | 10.98 | 1 |
| Gujarat | 10.91 | 2 |
| Karnataka | 10.16 | 3 |
| Madhya Pradesh | 9.91 | 4 |
| Punjab | 9.68 | 5 |
| Tamil Nadu | 9.55 | 6 |
| U.P. | 9.44 | 7 |
| A.P. | 9.36 | 8 |
| Bihar | 9.22 | 9 |
| M.P. | 9.20 | 10 |
| Rajasthan | 8.99 | 11 |
| Orissa | 8.93 | 12 |
| Pondichary | 8.91 | 13 |
| Goa | 8.83 | 14 |
| Kerala | 8.04 | 15 |
| Assam | 7.43 | 16 |
| West Bengal | 6.67 | 17 |

SOURCE : Cooperative sugar Mag., 1989.

From above table it is revealed that Maharashtra state stands 'first' in recovery rate i.e. 10.98%. U.P. is largest sugar producing state but recovery rate is less than 10%. Absence of modern technology and mis management of sugar extraction normally decreases recovery rate.

D] GOVERNMENT POLICY :

The sugar policy of the Government of India has been lacking long term perspectives i.e. control, decentral, partial control etc. have been used in the past in an ad-hoc-manner. Government was partial control as permanent mechanism. Government policies on caneprice; control price of sugar, dual pricing etc. have been designed and used for the benefit of sugar factory owners and distributors and for the benefit of the consumers. All these policy factors puts the sugar industries in difficult position.

E) COMPETITION FROM GUR AND KHANDASARI MAKING UNITS :

In rural India, Gur making is very famous due to its simple methods of production. Farmers due to its simple methods of production farmers can easily built Gur making house with least cost. Farmers are attracted to Gur making because :

1. They get advance payments even before one year earlier from the Gur Dalas.
2. they get full payment of price of the gur at a time soon after its sale is effected.
3. No deductions are made by the dalals unlike the factories making various deductions on different accounts. Similarly, Khandasari making units confers similar advantages to the farmers.

Due to these advantages generally prefers to send their sugar cane to Gur and Khandasari making units. Thus sugar factories face a great deal of competition from Gur and Khandasari units.

F) PROBLEM OF BY-PRODUCT :

Another problem of sugar industry is the lack of fuller and proper utilisation of by-products, viz. bagasse and molasses. These by-products can be used to manufacture fuel, paper and other instruments, alcohol, fertilizers, cattle feed etc. If these by products are used properly, it can bring good amount revenue to the factories which leads to reduce the cost of production. But these by-products are not used properly and fully in our country. As a result of this, the cost of production increases.

G) MIS MANAGEMENT :

It has become a matter of public discussion that the management of sugar factories mis use the funds for their selfish ends. It is seen particularly in cooperative sector. In election times crores of rupees are spent reckless in the race of getting the chair. Delay in taking decisions, favourable favouritism, dishonest selfishness etc. have become a drag and challenges to the growth and smooth functioning of sugar industry.

Despite all handicaps and problems, sugar industry has bright prospects as there is abundant supply of raw materials, cheap labour and high local market.

2.5 NEW SUGAR POLICY OF SUGAR INDUSTRY IN INDIA :

In 1985-1986, the Union Government has made two changes in the sugar cane policy. They are :

1. An increase in statutory minimum price of sugar cane and
2. The proportion of sugar meant for free sale.

The new sugar policy has fixed at Rs. 16.50 per qtls linked to the basic of 8.5 per cent. This represents an increase of Rs. 2.50 per qtls over the price fixed for the preceding season and corresponds in the recommendations made by Commission on agricultural cost and price.

The second new policy is fixed the statutory minimum cane price for the 1986-1987 sugar season at Rs. 17.00 per cts. consequently it is increased in minimum cane price, after words, the Govt. has also raised the price of levy sugar at Rs. 4.40 per Kg.

Rs. 4.80 per Kg. in December 1985. ^{The} ratio of levy sugar to free sale sugar is reduced from 63:35 to 55:45.

The Government announced a statutory minimum price of sugar cane of Rs. 17 per cts for abasic recovery of 8.5 percentage and also announced s.m.p. of Rs. 18 per cts for the year 1987-1988.

The levy free sale ratio of sugar was revised from 55.45 to 50.50 for 1986-1987 season. The Government had also created separate zones for ex-factory levy price in respect of North and South Maharashtra, Gujarat and South Gujarat. The C.M.F. for cane also revised to Rs. 19.50 per ctns linked to a basic recovery at 8.5 percent, for the year 1987-1988, because of draught and flood conditions, in the different part of the country.

On the basis of report of the B.I.C.P. the Government has fixed the ex-factory price for levy for different zones for the current season. A decision has been taken to increase controlled price molasses from Rs. 60 per tonne, to Rs. 120 per tonne from 1.10.1987. All these measures during the current 1987-1988 season the sugar production upto 7.3.88 has been 57,006 lakh tonnes as against 55.55 lakh tonnes in the corresponding periods last year.

But due to the uneconomic price structure of sugar and consequent accumulation of heavy areas of cane price the farmers shifted away from sugar cane cultivation. The area under cane decline from 33.98 lakh hectares in 1982-1983 to 29.53 lakh hectares in 1984-85.

Consequently sugar production dropped to 61.44 lakh tonnes in 1984-1985.

As a result of these factors, the country had been compelled to import 18 lakh tonnes involving a foreign exchange out go of Rs. 1360 crores during the last three years upto 1986-1987. After wards, the statutory minimum cane price following years was announced one year in advance.

The following table reveals the different rates of levy and free sale sugar.

TABLE No. 2a3

SUGAR PRICING POLICY IN INDIA

| Year | Policy | Levy in % | Free sale in % |
|-------------|-----------------|-----------|----------------|
| 1980 - 1981 | Partial control | 65 | 35 |
| 1981 - 1982 | Partial control | 65 | 35 |
| 1982 - 1983 | Partial control | 65 | 35 |
| 1983 - 1984 | Partial control | 65 | 35 |
| 1984 - 1985 | Partial control | 65 | 35 |
| 1985 - 1986 | Partial control | 55 | 45 |
| 1986 - 1987 | Partial control | 50 | 50 |
| 1987 - 1988 | Partial control | 50 | 50 |
| 1988 - 1989 | Partial control | 55 | 45 |

SOURCE : Cooperative sugar May, 1989.

Above table shows that from 1980-1981 to 1984-1985 the relationship between levy and free sale sugar was the same i.e. 65:35. However, in the subsequent years the rates were revised. It was 55:45 in 1985-86, 50:50 in 1986-1987 and 1987-1988. Again it was revised to 55:45 for the year 1988-1989.

2.6 SUGAR INDUSTRY IN INDIA BEFORE INDEPENDENCE :

In 1903, the first sugar factory was established at Mairwa, in U.P. sugar industry mainly located in U.P. and Bihar. Because of infrastructural, natural and ancilliary factors, sugar industry developed in northern India. After words, it is shifted more and more in Southern India, following table indicates the increase of sugar factories and sugar production before independence.

TABLE NO.2.4

TABLE SHOWING TOTAL NO. OF SUGAR FACTORIES AND SUGAR PRODUCTION BEFORE INDEPENDENCE

| <u>Year</u> | <u>No. of sugar factories</u> | <u>Production of sugar (in lakh tonnes)</u> |
|-------------|-------------------------------|--|
| 1930 - 1931 | 29 | 1.2 |
| 1935 - 1936 | 135 | 9.3 |
| 1940 - 1941 | 148 | 11.1 |
| 1945 - 1946 | 145 | 9.6 |

SOURCE : Cooperative sugar March, 1989.

Above table shows phenomenal growth of sugar factories in pre-independence period. The No. of sugar factories increased from 29 in 1930-1931 to 145 in 1945-1946 and also sugar production of these factories increased from 1.2 lakh tonnes in 1930-1931 to 9.6 lakh tonnes in 1945-1946. This period represents a period of very rapid, almost sudden but unplanned expansion.

2.7 SUGAR INDUSTRY IN INDIA AFTER INDEPENDENCE :

During the period 1942 to 1951, sugar industry was passing difficult situation. Output of sugar was fluctuated between about 9 to 11 lakh tonnes. Because of wide fluctuations, sugar was decontrolled in December 1947. As a result of it, price of sugar rose rapidly. Moreover, black marketing and hoarding of sugar was taken place. Consequently, the consumers were badly affected, for this reason, Government also recontrolled sugar in 1949.

In 1950-1951, India adopted five year planning for economic development. Fuller utilisation of existing capacity of sugar factories was emphasised in five year planning. But first plan had not provided for magnitude of sugar industry. During the planning period sugar industry achieved more output than fixed target.

Under the Industries Development and Regulation Act of 1951, regulation of Sugar Industry came under the control of Government, of India in the first time. The Government of India provided incentives to the sugar industry by raising the minimum and maximum price of sugar cane, as a result of which the annual production of sugar rose to 15 lack tonnes. The table given below indicates the growth of sugar industry and sugar production during post independence period.

TABLE NO. 2.5
TABLE SHOWING GROWTH AND PRODUCTION OF SUGAR FACTORIES AFTER
INDEPENDENCE

| <u>Year</u> | <u>No. of factories</u> | <u>Production of sugarcane (in lack tonnes)</u> |
|-------------|-------------------------|--|
| 1950-1951 | 139 | 11.0 |
| 1960-1961 | 174 | 30.2 |
| 1970-1971 | 215 | 37.4 |
| 1980-1981 | 315 | 51.4 |
| 1981-1982 | 320 | 64.3 |
| 1982-1983 | 321 | 62.2 |
| 1983-1984 | 326 | 59.1 |
| 1984-1985 | 329 | 61.4 |
| 1985-1986 | 342 | 70.1 |
| 1986-1987 | 354 | 85.0 |

SOURCE : Cooperative Sugar March, 1989.

Above table shows that since 1951 sugar factories and sugar production has, increased rapidly. The No. of sugar factories increased from 139 in 1950-1951 to 354 in 1966-67 and sugar production increased from 11.0 lakh tonnes to 88.0 lakh tonnes. This picture shows that a great importance has been given to sugar industry after independence in India.

SUGAR PRODUCTION AND EXPORT AT INTERNATIONAL LEVEL :

In the map of sugar producing countries of the world and India occupies pride place in sugar production and its sugar export is also impressive which supports the fact that in addition to remunerative sugar cane prices that are paid to sugar cane growers, sugar industry contributes foreign exchange to the national treasury and helps to control the "Balance of Trade".

TABLE NO. 2.6

TABLE SHOWING TOTAL SUGAR PRODUCTION AND EXPORT AT INTERNATIONAL LEVEL:

| Name of the Country | Production of sugar in M.Tonne. | Export M.T. | Rank based on production |
|---------------------|------------------------------------|----------------|-----------------------------------|
| India | 9126270 | 504050 | 1 |
| Brazil | 6940554 | 2788245 | 2 |
| Cuba | 6039479 | 7641170 | 3 |
| America | 5417643 | - | 4 |
| Australia | 3652204 | 2503844 | 5 |
| Thailand | 3016667 | 2044815 | 6 |
| Mexico | 2739109 | - | 7 |
| Philippines | 2709306 | 1301098 | 8 |
| China | 1700000 | - | 9 |
| Pakistan | 1000000 | - | 10 |

SOURCE : "Godra" July 1965.

In addition to international importance from the point of view of export, another main feature of this industry is continuous increase in sugar factories over the years.

In the conclusion we can say that sugar industry occupies national importance as it gives remunerative prices to sugar cane growers, acts as an agent of social change and contributes to rural development besides it earns valuable foreign exchange and thus contributes to "balance of trade" of the nation.

In the next sub chapter sugar industry at state level is discussed.

TABLE NO. 2.7

TABLE SHOWING STATE WISE DISTRIBUTION OF SUGAR FACTORIES AND SUGAR PRODUCTION (1986-1987)

| State Territory | Area (000 hect.) | No. of factories | Duration of crushing (days) | Sugar production (In lakh tonnes) |
|--------------------|---------------------|---------------------|-----------------------------------|--------------------------------------|
| A.P. | 135 | 31 | 120 | 88.08 |
| Assam | 046 | 02 | 088 | 21.17 |
| Bihar | 112 | 26 | 102 | 37.29 |
| Gujarat | 069 | 12 | 172 | 55.56 |
| Haryana | 124 | 08 | 168 | 67.40 |
| Karnataka | 181 | 24 | 130 | 148.54 |
| Kerala | 008 | 02 | 071 | 4.12 |
| M.P. | 046 | 08 | 100 | 16.46 |
| Maharashtra | 280 | 91 | 128 | 240.91 |
| Orissa | 045 | 03 | 086 | 27.86 |
| Punjab | 097 | 11 | 182 | 61.10 |
| Rajasthan | 029 | 03 | 088 | 12.90 |
| Tamil Nadu | 196 | 25 | 184 | 216.05 |
| U.P. | 1678 | 102 | 161 | 847.36 |
| W. Bengal | 013 | 02 | 045 | 7.57 |
| Pondichery | 003 | 02 | 218 | 4.60 |
| Goa | 002 | 01 | 079 | 0.80 |
| Total | 3074 | 353 | 141 | 1857.77 |

SOURCE : Cooperative Sugar March, 1989.

Above table shows that Maharashtra State had 91 sugar factories in the year 1986-1987 and ranking second in the map of sugar industry of India after Uttar Pradesh.

Uttar Pradesh is successful in establishing 102 sugar factories covering 1678, thousand hectares of sugar cane, and produced 847.36 lakh tonnes sugar. Though U.P. ranks first in number of sugar factories and sugar cane cultivation and sugar production. Gujarat, Assam, Goa, Bengal, Pondichery are trying to come on national map of sugar industry of India.

2.8 COOPERATIVE SUGAR INDUSTRY IN INDIA :

At present, cooperative sugar industry plays very important role in the economy of our country. It has been developing commercial attitudes amongst sugar cane growers. More and more cooperative sugar factories are coming up which is a symbol of popularity of this kind of business.

Cooperative sugar industry gives remunerative prices to sugar cane growers acts as an agent of social change and contributes to rural development. Almost, all sugar cane growers are members of the cooperative sugar factory. Profit of cooperative sugar factory are distributed among members in the form high sugar cane price or spent on regional development.

Before planning period, there were two sugar factories in India. One is situated at Etikoppaka in Bihar and another is located at Pravara nagar in Maharashtra. Following table indicates statewise distribution of cooperative sugar factories and sugar production in India.

TABLE NO. 2.8**Table SHOWING STATEWISE COOPERATIVE SUGAR FACTORIES AND SUGAR
PRODUCTION IN INDIA (1986-1987)**

| State Union Territory | No. of factories | Sugar Production (in lakh Tonnes) |
|-----------------------------|------------------|--------------------------------------|
| A.P. | 18 | 2.23 |
| Assam | 2 | 0.05 |
| Bihar | - | - |
| Gujarat | 1 | 5.76 |
| Haryana | 7 | 1.54 |
| Karnataka | 14 | 2.98 |
| Kerala | 1 | 1.54 |
| M.P. | 3 | 0.22 |
| Maharashtra | 84 | 22.70 |
| Nagaland | - | 0.20 |
| Orissa | 2 | |
| Punjab | 7 | 1.52 |
| Rajasthan | 1 | 0.10 |
| Tamil Nadu | 12 | 3.56 |
| U.P. | 29 | 6.24 |
| West Bengal | - | |
| Goa | 1 | 0.08 |
| Pondicherry | 1 | 0.28 |
| Total | 183 | 48.94 |

SOURCE : Cooperative Sugar May, 1989.

2.9 COOPERATIVE SUGAR INDUSTRY IN MAHARASHTRA

Maharashtra is pioneer in cooperative sugar industry. Co-operative processing units are playing important role in the socio economic conditions of Maharashtra. Availability of infrastructural factors Co-operative sugar factories are increasing rapidly in Maharashtra. Sugar industry in Maharashtra had ranked, first in India in respect of Co-operative sugar factories (1987-1988).

In recent years, there are 91 sugar factories, in Maharashtra. Out of this 84 are Co-operative and 7 are private. At present, in Maharashtra there are 24 distilleries and 8 paper factories. Out of the total sugar production in India, Maharashtra contributes 35% sugar production.

After Independence, the first Co-operative sugar factory was established at Pravaranagar in Maharashtra in 1950. From this period onwards a large number of Co-operative sugar factories have been established in Maharashtra.

Following table shows the number of sugar factories in Maharashtra during the period 1984 to 1987.

TABLE NO. 2.9Number of sugar factories registered in Maharashtra.

| Year | No. of factories registered | No. of factories in production |
|-----------|-----------------------------|--------------------------------|
| upto 1984 | 78 | 67 |
| 1984-1985 | 100 | 77 |
| 1985-1986 | 100 | 79 |
| 1986-1987 | 100 | 84 |

Source : Maharashtra Cooperative Quarterly April, 1987.

In Maharashtra 90% of sugar factories are situated in rural and semi-urban areas, which will help to achieve balance in regional development. Each sugar factory having 1250 m. tonnes of crushing capacity provides direct employment to 900 to 1000 workers. It contributes Rs. 150 crores as purchase tax and concess to Government. More than 3 lakhs workers are employed as sugarcane cutters. They received Rs. 50 crores as their wages. Annually, cooperative sugar factories undertakes the activities like educational social charitable and other welfare activities.

The cooperative sugar factory has bringing revolutionary changes in the economic structure of Maharashtra in rural area.

It has been responsible for ushering in socialistic pattern of society. The sugar Inquiry commission observed that, " In Maharashtra the setting up of a cooperative sugar factory as acted as a nucleus for social and economic development of area around and has helped to develop a new class of rural, entrepreneurs.

Thus, the rapid growth of cooperative sugar factory is expected. But it is criticised that due to party politics the benefits of cooperative sugar factories are flowing largely towards rich members."

STATISTICAL NO. OF COOPERATIVE SUGAR FACTORIES AND SUGAR
PRODUCTION IN MAHARASHTRA IN THE YEAR 1988.

TABLE NO. 2.10

TABLE SHOWING SUGAR PRODUCTION IN MAHARASHTRA

| <u>District</u> | <u>No. of sugar cooperative factories</u> | <u>Production of sugar (in quintals)</u> |
|-----------------|---|---|
| Kolhapur | 11 | 5079735 |
| Wangli | 07 | 2336025 |
| Natara | 06 | 2351225 |
| Poona | 06 | 1445559 |
| Solapur | 06 | 1154420 |
| Nasik | 06 | 1178340 |
| Ahmednagar | 13 | 3393655 |
| Dhule | 04 | 918170 |
| Jalgaon | 03 | 561030 |
| Aurangabad | 05 | 480910 |
| Jalana | 02 | 158085 |
| Beed | 04 | 282135 |
| Umanabad | 02 | 176265 |
| Latur | 03 | 289500 |
| Nanded | 02 | 234745 |
| Parbhani | 03 | 198765 |
| Buldhana | 06 | 3781045 |
| Total | 89 | 24819609 |

SOURCE : Godawa April, 1988.

The above table shows that there are 89 sugar factories in Maharashtra which produced 2,40,19609 qtls of sugar. Out of the total production in Maharashtra, the Kolhapur district has produced highest sugar i.e. 50,79,735 qtls than other district in Maharashtra. Thus, cooperative sugar industry have become a dominant aspect of agro industrial picture in Maharashtra.

Table No.211

TABLE SHOWING AVERAGE RECOVERY OF SUGAR IN MAHARASHTRA

| Classes of of Average recovery | District | Average recovery in % |
|--------------------------------------|--------------------|--------------------------|
| Below 10.00 | Beed | 9.97 |
| | Nanded | 9.27 |
| | Parbhani | 9.84 |
| | Suldhane | 9.98 |
| | Jalna | 9.94 |
| | Usmanabad | 9.86 |
| | Latur | 9.03 |
| | Amravati Nagpur | 5.96 3.10 |
| 10.00 to 10.50 | Aurangabad | 10.02 |
| | Jalgaon | 10.16 |
| | Selepur | 10.27 |
| 10.50 to 11.00 | Dhule | 10.67 |
| | Pune | 10.86 |
| | Yavatmal | 10.59 |
| 11.00 to 11.50 | Nasik | 11.22 |
| | Wangli | 11.23 |
| 11.50 and above | Ahmednagar | 11.60 |
| | Kolhapur | 11.53 |
| | Satara | 11.57 |

SOURCE : Godwa April, 1988.

From the above table it is revealed that the Ahmednagar district stands higher recovery rate i.e. (11.56) than the other district in Maharashtra. As against the low recovery rate are seen in Nagpur i.e. (3.10) etc.

2.10 SUGAR INDUSTRY IN KOLHAPUR DISTRICT :

Since long, Kolhapur has a heritage of sugarcane cultivation but the sugarcane grown was utilised for a jaggery production. In post dependence period number of cooperative organisations were formed and their spectacular success motivated the sugar cane growers to form their cooperative jaggery production units called as "Fed" with an intension to make this activity more remunerative.

Sugarcane cultivators came together and planned large scale sugar production units and with government initiative guidance and financial assistance with this they could form cooperative sugar factories. At present, Kolhapur has occupied a pride place in the map of sugar industry at present there are 11 sugar factories having crushing capacity of 28000 M.T. of sugar cane per year. The statistical information regarding the sugar cane crushed, sugar production, recovery of sugar days of crushing, installed and utilised capacity price paid is given in the following table

Table No. 2.12

Table showing Sugar Factories in Karnataka State

| Name of cooperative Sugar Factory | Taluka | Crushing capacity (M.Ts.) | Sugarcane crushed (in tonns) | Sugar produced (in cts) | Days of crushing (in %) | Recovery of sugar (in %) | Price paid Rs. in per tonne) (1986-87) |
|--|------------------|---------------------------------|------------------------------------|----------------------------|-------------------------------|-----------------------------------|---|
| 1. Bhogavati Sahakari Sakhar Karkhana Ltd. (Parlote) | Kadha- nayeri | 2000 | 497016 | 594628 | 179 | 11.97 | 374.0 |
| 2. Jhri. Chh. Shahu Sahakari Sakhar Karkhana Ltd. (Kagal) | Kagal | 1250 | 252177 | 289294 | 160 | 11.47 | 326.0 |
| 3. Betta Shetkari Sahakari Sakhar Karkhana (Asurle Parle) | Penhala | 1250 | 242884 | 264431 | 159 | 10.89 | 325.0 |
| 4. Joulat Shetkari Sahakari Sakhar Karkhana Ltd. (Halkarnaj) | Chandgad | 2000 | 358615 | 411822 | 178 | 11.48 | 325.0 |
| 5. Deodh Janga Ved Janga Sahakari Sakhar Karkhana Ltd. (Bidri) | Kagal | 3500 | 460661 | 547154 | 144 | 11.83 | 286.0 |
| 6. Betta Sahakari Sakhar Karkhana Ltd. Shiroli | Shiroli | 2500 | 471121 | 574946 | 190 | 12.13 | 350.0 |
| 7. Gadhingolej Sahakari Sakhar Karkhanal Ltd. Gadhingolej | Gadhingolej | 2000 | 379847 | 434355 | 177 | 11.43 | 320.0 |
| 8. Kumbhi Kesari Sahakari Sakhar Karkhana Ltd. (Keditre) | Karveer | 3000 | 518469 | 620707 | 160 | 11.97 | 350.0 |
| 9. Panchanganga Sahakari Sakhar Karkhana Ltd. Ichalkaranji | Hatkanegole | 3000 | 922710 | 1047613 | 194 | 11.67 | - |
| 10. Warana Sahakari Sakhar Karkhana Ltd. Warana | Penhala | 3000 | 582485 | 706674 | 172 | 12.13 | 363.0 |
| 11. Chh. Rajaram Sah. Sakhar Karkhana Ltd. K. Bhavda | Karveer | 2200 | 153405 | 304240 | 163 | 11.15 | 325.0 |

TABLE NO. 2.13

TABLE SHOWING CAPACITY UTILISATION OF SUGAR COOPERATIVES IN
KOLHAPUR DISTRICT (1987-1988)

| Sl. No. | Name of cooperative sugar factory | Sugarcane crushed in M.T. | Days of crushing | Installed capacity | Utilised capacity in % |
|---------|--|---------------------------|------------------|--------------------|------------------------|
| 1. | Panchganga Sahakari Sakhar Karkhana Ltd. Ichalkaranji | 922710 | 194 | 5000 | 95.12 |
| 2. | Narana Sahakari Sakhar Karkhana Ltd. Narana | 582485 | 172 | 3000 | 112.88* |
| 3. | Kumbhai Kasari Sahakari Sakhar Karkhana Ltd. Kuditre | 518469 | 160 | 3000 | 108.81* |
| 4. | Shogavati Sahakari Sakhar Karkhana Ltd. Ferite | 497016 | 179 | 2000 | 138.83* |
| 5. | Datta Sahakari Sakhar Karkhana Ltd. Dhirel | 471121 | 190 | 2500 | 99.18 |
| 6. | Goodh Ganga Ved Ganga Sahakari Sakhar Karkhana Ltd. Sidri | 460661 | 144 | 3500 | 91.40 |
| 7. | Gadhinglaj Sahakari Sakhar Karkhana Ltd. Gadhinglaj | 379847 | 177 | 2000 | 107.30* |
| 8. | Daulat Shetakari Sahakari Sakhar Karkhana Ltd. Malkarni | 358615 | 178 | 2000 | 100.73* |
| 9. | Chh. Anaram Sahakari Sakhar Karkhana Ltd. K. Bavada | 353405 | 163 | 2200 | 98.88 |
| 10. | Chh. Chahu Sahakari Sakhar Karkhana Ltd. Kagal | 252177 | 160 | 1250 | 126.08* |
| 11. | Datta Shetakari Sahakari Sakhar Karkhana Ltd. Asurle Porle | 242884 | 159 | 1250 | 122.20* |

SOURCE : Same as Table No. 2.12.

* This indicates that the over utilisation of plant on account of availability of excess sugarcane.

Table No. 2.14

TABLE SHOWING SUGAR PRODUCTIONWISE RANKING OF SUGAR COOPERATIVES
IN KOLHAPUR DISTRICT

| Sr.No. | Name of cooperative sugar factory | Sugar produced in (Quantals) | % to total sugar production |
|--------|--|---------------------------------|--------------------------------------|
| 1. | Kanchyanga Sahakari Sakhar Karkhana Ltd. Ichalkaranji | 10,47,613 | 17.79 |
| 2. | Narana Sahakari Sakhar Karkhana Ltd, Narananagar | 7,06,674 | 12.00 |
| 3. | Kumbhi Kasari Sahakari Sakhar Karkhana Ltd, Kuditre | 6,20,707 | 10.55 |
| 4. | Bhogavati Sahakari Sahakari Sakhar Karkhana Ltd, Karite | 5,94,828 | 10.10 |
| 5. | Shri. Datta Sahakari Sakhar Karkhana Ltd. Shirol | 5,74,946 | 9.97 |
| 6. | Jodh Ganga Ved Ganga Sahakari Sakhar Karkhana Ltd. Bidri | 5,47,154 | 9.30 |
| 7. | Jadhinglaj Sahakari Sakhar Karkhana Ltd. Jadhinglaj | 4,34,355 | 7.30 |
| 8. | Daulat Shetakeri Sahakari Sakhar Karkhana Ltd. Halkarani | 4,11,822 | 7.00 |
| 9. | Chh. Sajaram Sahakari Sakhar Karkhana Ltd. Bavada | 3,94,240 | 6.70 |
| 10. | Chh. Shahu Sahakari Sakhar Karkhana Ltd. Kagal | 2,89,294 | 4.91 |
| 11. | Datta Shetakeri Sahakari Sakhar Karkhana Ltd. Asurle Porle | 2,64,431 | 4.50 |
| Total | | 60,86,064 | 100.00 |

SOURCE : Same as Table No. 2.12.

Above table shows that the Panchanganga Sahakari Sahakari Sakhar Karkhana Ltd. Ganganagar has produced maximum sugar.

TABLE NO. 2.15

TABLE SHOWING RECOVERYWISE RANKING OF SUGAR COOPERATIVES IN
KOLHAPUR DISTRICT (1987-1988)

| Sl.No. | Name of cooperative sugar factory | Sugar Recovery | Rank |
|--------|--|----------------|------|
| 1 | Warana Sahakari Sakhar Karkhana Ltd. Warananager | 12.13 | 1 |
| 2 | Datta Sahakari Sakhar Karkhana Ltd. Chiroli | 12.13 | 1 |
| 3 | Bhogavati Sahakari Sakhar Karkhana Ltd. Parite | 11.97 | 2 |
| 4 | Kuabhi Kasari Sahakari Sakhar Karkhana Ltd. Kuditre | 11.97 | 2 |
| 5 | Doodh Ganga Ved Ganga Sahakari Sakhar Karkhana Ltd. Bidri | 11.88 | 3 |
| 6 | Laulet Shetakari Sahakari Sakhar Karkhana Ltd. Asurle Porle | 11.48 | 4 |
| 7 | Shri.Chn.Shahu Sahakari Sakhar Karkhana Ltd. Kayal | 11.47 | 5 |
| 8 | Panchanganga Sahakari Sahakari Sakhar Karkhana Ltd. Ichalkaranji | 11.47 | 5 |
| 9 | Gadhinglaj Sahakari Sakhar Karkhana Ltd. Gadhinglaj | 11.43 | 6 |
| 10 | Chh.Kajaram Sahakari Sakhar Karkhana Ltd. Kasabe Bavada | 11.15 | 7 |
| 11 | Datta Shetakari Sahakari Sakhar Karkhana Ltd. Asurle Porle | 10.89 | 8 |

SOURCE : Same as Table No. 2.12.

TABLE NO. 2.16

TABLE SHOWING PRICE AND RANKING OF SUGAR WORKSHOPS IN DISTRICT

DISTRICT (1986-1987)

| Sr.No. | Name of cooperative sugar factory | Price paid per tonne (in Rs.) | Ranking |
|--------|--|-------------------------------|---------|
| 1 | Chogavati Sahakari Sakhar Karkhana Ltd, Parite | 374 | 1 |
| 2 | Varana Sahakari Sakhar Karkhana Ltd, Arananagar | 363 | 2 |
| 3 | Shri. Datta Sahakari Sakhar Karkhana Ltd, Shirol | 350 | 3 |
| 4 | Kumbhi Kasari Sahakari Sakhar Karkhana Ltd, Kuditre | 350 | 3 |
| 5 | Ch. Shahu Sahakari Sakhar Karkhana Ltd, Kagal | 326 | 4 |
| 6 | Datta Shetakari Sahakari Sakhar Karkhana Ltd, Asurle Folel | 325 | 5 |
| 7 | Lalul Shetakari Sahakari Sakhar Karkhana Ltd, Balkarani | 325 | 5 |
| 8 | Ch. Rajaram Sahakari Sakhar Karkhana Ltd, K. Savada | 325 | 5 |
| 9 | Gadhinglaj Sahakari Sakhar Karkhana Ltd, Gadhinglaj | 320 | 6 |
| 10 | Modh Wanga Ved Wanga Sahakari Sakhar Karkhana Ltd, Sidri | 288 | 7 |
| 11 | Manchanganga Sahakari Sakhar Karkhana Ltd, Ichalkeranji | - | - |

SOURCE : Same as Table No. 2.12.

It can be concluded from the above table that there are 11 cooperative sugar factories in Kolhapur District, which consist of 12 Taluka. In Karveer and Kagal Talukas there are two cooperative sugar factories each, running effectintly giving remunerative price for the sugar cane supplied i.e. above Rs. 300/ per tonne. Three more proposals for farming cooperative sugar factories are pending with Government.

Total sugar cane crushing of the district is up to 53 lakhs of M. Tonnes. in a season consisting of 150 to 195 days per year. With annual sugar production of 69 lakh quintals. Sugar recovery is with in the range of 10.89 to 12.13. Highest sugar recovery is registered by warana Sahakari Sakhar Karkhana Ltd, Warananagar.

Licensed capacity utilisation of the whole district is 28000 M.T. and almost all the factories are successful in crossing the licensed capacity has almost doubled the crushing over the years. Many of the factories has applied for expansion to the Government. Highest crushing capacity has been shown by "Shri. Panchanganga, Sahakari Sakhar Karkhana Ltd, Changanagar, Ichalkaranji," the organisation under study i.e. 9,22,710 M.T. and lowest crushing has been registered by Datta Sahakari Sakhar Karkhana Ltd, Asurle Porle.