

CHAPTER - I

HISTORICAL PERSPECTIVE OF SUGAR INDUSTRY

CHAPTER - I

INTRODUCTION

The Sugar Industry is the second largest agro based and processing industry next to cotton industry in India. The agro Industries are the industries which are either the users of agricultural output or producers of agricultural inputs. This is one of the major industries in India. It has played a vital and positive role in the development of India's economy and proved to be the back bone of Indian economy. This is the vast expanding sector of the Indian economy. In 1981-1982 India stood first in the world in sugar production. By exporting sugar Indian sugar industry has made significant contributions to the foreign exchange earnings of the country.

Sugar Industry is the major industry in the organised sector. Around 356 sugar factories with combined investment of over 1350 crores operate in India and produce annually an output worth of Rs. 3,000 crores. The Industry provides direct employment to about 3.50 lakhs of workers besides providing direct sustenance to about 30 million sugarcane growers all over the country. With the permission of central Government, in January 1987 sugar factories may increase the working capacity from 1250 M.tonnes to 2500 M. tonnes. This will provide more and more direct employment to workers and sustenance to the sugarcane producers. About 7% of India's rural population is engaged in sugar industry. It provides about 350 crores rupees

to the workers. Sugar factories are providing annually about Rs. 2,200 crores as sugarcane prices and providing seeds, fertilizers and other services worth Rs. 100 crores and playing an important role in the economic life of its share holders.

Sugarcane production is scattered all over the India. Out of 22 states and 9 union Territories 15 states and 2 union territories are cultivating sugarcane. Only 2.25% of the India's total land is cultivated for sugarcane. 30 to 35 lakh hectors of India's land is used for sugarcane cultivation. The Industry's contribution to the Central Government by way of excise and other levies is in excess of Rs. 350 crores. The industry is also a major source of carbohydrates for the masses. Sugar industries are acting as mother Industries and becoming centers for agricultural industrial and economic growth in rural areas of Indian economy. Many educational commercial and charitable institutions are being formed because of the sugar factories are also being established. It is agreed that the sugar factories are also providing leadership to the cooperative movement in India. The sugar factories are assisting the Indian Government in the implementation of the important programmes like IRDP, 20 point economic programme. But due to lack of irrigation facilities, inadequate and untimely supply of sugarcane improper use of fertilizer mix are some of the lages found in sugar factories.

1.1 HISTORICAL PERSPECTIVE OF SUGAR INDUSTRY :

Historical study of sugar factories indicates that only towards the end of the 19th century sugar factories in the modern sense started functioning. The production technique of white sugar from sugarcane is quite old in India. Therefore, India is considered as the original home of the sugarcane and sugar. Some of the legends of Budha period 4th century B.C. mentions the early being of sugar production but in 9th and 10th century commercial manufacturing and refining was developed in Egypt. Commercial development and use of sugar and sugarcane production was widely spread in Europe during 11th and 12th century. The first Europeans to sugarcane in India were Alexander the great and his soldiers. From the above it will be proved that India is the birth place of sugarcane. The highly developed art of sugar production in Magadha (Bihar) observed by the delegation of Chinese emperor Tai Tsung is recorded in Chinese encyclopaedia of the 16th century.

Since vedic times sugar is known to Indians because references of sugar, sarkara called in Sanskrit, are found in Arthera Veda, an ancient shastras of Hindu. Modern sugar factory was formed first by Datch in north Bihar about 1840. Britishers were the subsequent founders of cooperative sugar factories on modern lines about 1903.

1.2 COOPERATIVE SUGAR INDUSTRY IN INDIA :

PROGRESS OF SUGAR INDUSTRY IN INDIA BEFORE INDEPENDENCE :

In India originally sugar industry was located chiefly in Utter Pradesh and Bihar. Though, because of availability of infrastructural, natural and ancilliary factors, sugar industry originally developed in northern India, it developed afterwards in Southern India. In U.P. at Mairwa first sugar factory in India was started at 1903 and granted protection by the British Government in 1932 and came into light. Following table indicates the increase of sugar factories and sugar production.

TABLE NO.1.1

SUGAR FACTORIES AND SUGAR PRODUCTION BEFORE INDEPENDENCE

<u>Year</u>	<u>No. of Factories</u>	<u>Sugar production (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 May, 1983.

The above table shows that 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. The No. of sugar factories rose

to 148 and the production of sugar increased to 11.1 lakh tonnes in 1940-1941.

DEVELOPMENT OF SUGAR INDUSTRY AFTER INDEPENDENCE :

After Independence India adopted five year planning technique for economic development. Through successive five year plans India has been making remarkable progress after independence. During planning period the sugar industry exceeded the fixed target for each plan. In 1968-1969 there was a seasonal set back and production decreased sharply. The table given below indicates the growth of sugar industry and sugar production during post independence period.

TABLE NO.1,2

GROWTH OF SUGAR FACTORIES AND SUGAR PRODUCTION

<u>Year</u>	<u>No.of sugar Factories</u>	<u>Sugar production (in lakh tonnes)</u>
1950 - 1951	138	11.2
1955 - 1956	143	18.3
1960 - 1961	174	30.5
1965 -1966	200	35.3
1970 - 1971	216	37.4
1975 - 1976	253	42.6
1976 - 1977	271	48.4
1977 - 1978	286	64.6
1978 - 1979	299	58.4
1979 - 1980	299	38.6
1980 - 1981	314	51.7
1981 - 1982	319	84.4
1982 - 1983	320	82.3
1983 - 1984	325	59.2
1984 - 1985	356	62.0

SOURCE : Indian Sugar Mills Association, Indian Sugar, April,1985.

Above table shows that since 1951 cooperative sugar factories and sugar production increased rapidly. The No. of sugar factories increased from 138 in 1950-1951 to 356 in 1984-1985 and sugar production increased from 11.2 lakh tonnes to 62.0 lakh tonnes. This picture shows that great importance has been given to the sugar industry after independence in India. More and more sugar factories have come in existence rapidly and have contributed to the regional development and country as a whole. As the development of sugar industry is based on sugarcane production in a country it is also a development of sugarcane cultivators.

Following Table No. 1.3 shows that Maharashtra State had 78 sugar factories in the year 1984 and ranking second in the Map of sugar industry of India after Utter Pradesh. Utter Pradesh is successful in establishing 93 sugar factories covering 1,704 hectors of sugarcane. Though U.P. ranks first in number of sugar factories and sugarcane cultivation, Maharashtra stands 'First' in sugar recovery registering an average recovery of 9.43% against 9.33% recovery registered by Utter Pradesh. Assam, Goa W. Bengal, Pandichery are trying to come on national map of sugar industry of India.

TABLE NO.1.3

STATE WISE DISTRIBUTION OF SUGAR FACTORIES

State/ Territory	Area (000'hectors	No.of Factories	Duration of crushing (days)	Average Recovery (%)
A.P.	141	31	66	9.66
Assam	49	01	76	8.16
Bihar	128	28	75	9.13
Gujarat	103	12	132	10.52
Haryana	134	05	154	9.07
Karnatak	183	24	95	10.19
Kerala	83	02	79	7.93
M.P.	70	08	113	9.43
Maharashtra	294	78	122	11.13
Orissa	42	03	71	9.32
Punjab	84	08	137	10.47
Rajasthan	37	03	87	9.44
Tamil Nadu	157	23	120	9.30
U.P	1704	93	126	9.33
W.Bengal	20	02	21	7.42
Goa	N.A	01	-	-
Pondichery	02	02	-	-
All India	3167	326	111	10.02

source : National Federation of Cooperative Sugar Factories (H),

New Delhi Cooperative Sugar , June 1985.

TABLE NO.1.4
STATEWISE COOPERATIVE SUGAR FACTORIES IN INDIA 1983-1984.

State/Union Territory	<u>No. of Factories</u>		% of Sugar production produced by cooperatives to the total sugar production.
	No.:	% of Cooperative in India	
	:	:	
A.P.	17	10.6	33.6
Assam	02	1.3	100.0
Bihar	-	-	-
Gujarath	12	7.5	100.0
Haryana	04	2.5	43.6
Karnatak	01	0.6	80.0
Kerala	13	8.1	47.5
M.P.	03	1.9	31.3
Maharashtra	67	41.9	90.5
Nagaland	-	-	-
Orissa	04	1.3	94.1
Punjab	04	2.5	58.2
Rajasthan	01	0.6	21.7
Tamil Nadu	11	6.9	41.5
U.P.	21	13.1	17.8
West Bengal	-	-	-
Goa	01	0.6	100.0
Pondicherry	01	0.6	21.0

SOURCE : National Federation of Cooperative Sugar Factories (H),
New Delhi, Cooperative Sugar June, 1985.

1.3 COOPERATIVE SUGAR INDUSTRY IN MAHARASHTRA :

Cooperative processing units are playing vital role in the socio economic conditions of the members. cooperative sugar factory is a dominant cooperative processing unit. Because of its unique importance, availability of infrastructural factors cooperative sugar factories are increasing rapidly in Maharashtra. Maharashtra stands second in India after Utter Pradesh in respect of sugar cooperative factories.

The Pravara Cooperative sugar factory at Loni in Ahmednagar is the first cooperative sugar factory in Maharashtra. Following table shows the growth of cooperative sugar factories in Maharashtra during the period 1956 to 1988.

TABLE NO.1.5

COOPERATIVE SUGAR FACTORIES IN MAHARASHTRA

<u>Period up to</u>	<u>No. of cooperative sugar factories</u>
1956	13
1961	20
1966	24
1970	48
1975	68
1980	68
1982	81
1988	90

SOURCE : Annual Report of Cooperative Sugar Sangh 1980-1981.

Districtwise No. of cooperative Sugar factories in Maharashtra in the year 1988.

TABLE NO.1,6

SUGAR PRODUCTION AND RECOVERY IN MAHARASHTRA

District	No. of sugar cooperative factories	Production of sugar (in quintals)	Average of Recovery (in %)
Kolhapur	11	50,79,735	11.66
Sangli	07	23,36,025	11.18
Satara	06	23,51,225	11.41
Poona	06	14,45,559	10.44
Solapur	06	11,54,420	10.12
Nasik	06	11,78,340	11.11
Ahmednagar	13	33,93,655	10.83
Dhule	04	9,18,170	10.29
Jalgaon	03	5,61,030	9.79
Aurangabad	05	4,80,910	10.11
Jalana	02	1,58,085	9.47
Beed	04	2,82,135	9.95
Usmanabad	02	1,76,265	9.78
Latur	03	2,89,500	9.72
Nanded	02	2,34,745	9.66
Parbhani	03	1,98,765	9.92
Buldhana	06	37,81,045	9.90

SOURCE : Godawa April, 1988.

Sugar industry occupies special importance in the economic activities of Maharashtra. It contributes Rs. 150 crores as purchase tax and cane cess to Maharashtra Government. Cooperative sugar factories are assisting the Maharashtra Government in the implementation of various schemes and programmes for rural development, eradication of unemployment and poverty, such as 20 point economic programme, IRDP, IADP etc. Now a days cooperative sugar factories are rolling as mother industries and creating necessary infrastructure for the development of ancillary industries. Thus they are becoming the 'growth centres' of all round development of the area and the people. In the cooperative sugar factories economically unviable peoples are becoming the members of economically viable association and such associations are working as 'big industries of small members'. The sugar cooperatives are popularised for participation in improving irrigation facilities. They are rendering remunerative prices for the members and thus helping for the members in improving sugarcane production. Cooperative sugar factories are providing annually about Rs. 750 crores as sugar cane prices for the sugarcane producers in Maharashtra. More than 3 lakhs workers are employed as sugarcane cutters and they received Rs. 50 crores as their wages. Each sugar factory having 1250 M. tonnes of crushing capacity provides direct employment to 900 to 1200 workers providing direct sustenance to millions of sugarcane growers in Maharashtra. Allied industries based on sugar industry are generating more direct

employment. The cooperative sugar factories are promoting the spirit of cooperation self reliance and social consciousness among its members. These are helping to promote area development activities like roads, educational institutions Hospitals and any other cultural activities. Most of the cooperative sugar factories are formed at rural and semi urban areas which will help to achieve balance in regional development. Sugar cooperative factories are becoming an important media for taking the technological development to the rural areas. They are training the members for the democratic way of life. The above points clarifies that the cooperative sugar factories have been instrumental in bringing about significant changes in the economic structure of Maharashtra in general and of rural Maharashtra in particular. It has been responsible for ushering in socialist pattern of society. The sugar enquiry commission has rightly observed that " In Maharashtra the setting up of a cooperative sugar factory has acted as nucleus for social and economic development of the area around and has helped to develop a new class of rural entrepreneurs." Thus rapid growth of cooperative sugar factories is expected. But it is criticised that due to party politics the benefits of cooperative sugar factories are flowing largely towards the rich members.

1.4 COOPERATIVE SUGAR INDUSTRY IN KOLHAPUR DISTRICT :

There are 30 districts in Maharashtra. Kolhapur district is the border district and is located in the southern Maharashtra. The district is the adjoining part to Karnataka State and is divided into 12 talukas. The district enjoys some unique features which helped to its agricultural development. It has fertile soil and annual rainfall on an average is 1946ms. It has sufficient ground water also. The rivers in India are called the mothers of farmers. In Kolhapur district 5 rivers namely Krishna, Panchanganga, Warna, Ghatprabha and Hiranyakeshi are flowing and irrigating the land of the district. These factors have played a crucial role in developing the Kolhapur district, sugarcane is the principal crop in Kolhapur district. Before the establishment of sugar factories, sugarcane was produced for production of Gur. Historical references reveal that from the middle of the 18th century sugarcane was produced in the district.

Kolhapur district has played a vital role in the agricultural and industrial development of Maharashtra. This development is substantially attributed to the sugar industry in Kolhapur district. Though the first sugar factory in the district was established in 1932, the efforts were being made from the latter half of the 18th century, i.e. from the year of 1884 to accelerate their growth. The year 1884 was the year of adoption ceremony of Rajarshi Chhatrapati Shahu Maharaja, which can be said incidental for the efforts for establishing new factories.

Sugar industry was thus promulgated in the region of Shahu Maharaja. From the beginning, Shri. Chhatrapati Shahu Maharaja, paid special attention to the complementary factors connected with sugar industry. It may not be an exaggeration to say that the sugarcane cultivators were motivated and inspired by Shahu Maharaja.

The adoption ceremony of Chhatrapati Shahu Maharaji was held in Kolhapur on 17th March 1984. On this important occasion dignitaries from different places of India gave their presence and honoured Chhatrapati Shahu with "LETTER OF HONOUR". In their speeches they appreciated the role of Kolhapur state in freedom struggle and progressive attitude towards backward classes of the society. The development of sugar cooperative finds its roots in the liberal policy adopted by Kolhapur state in respect of sugarcane cultivation "FAD" system of sugarcane cultivation was nothing but cooperative sugarcane cultivation which was highly supported in the period of Chhatrapati Shahu Maharaja as an remunerative proposition for the farmers. This FAD system in due course of time turned into cooperative sugar industry.

Cooperative movement in India took a proper shape by 1912 with the passing of the Indian cooperative societies Act, exclusively for cooperative enterprises. Before the adoption of cooperative principles for sugar industry the sugarcane was utilised for jaggery production. Though Kolhapur jaggery was well

known for its excellent quality, the jaggery producers were exploited in Kolhapur market by the private traders and mercantile agents till 1950. So in 1950 Tatyasaheb Mohite organised the Kolhapur district cooperative marketing society and set up a regulated agricultural produce market for providing marketing facilities and preventing economic exploitation of jaggery producers. The success of Pravaranagar Cooperative Sugar Factory, Ahmadnagar (1951) motivated the sugarcane producers towards forming more and more sugar factories on cooperative lines. As a result of this, upto 1959 3 factories were established and sugar production was started. At the end of crushing season 1988 there are 11 cooperative sugar factories in Kolhapur district. 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.

Sr. No.	Name of cooperative sugar Factory	Crushing Capacity (M. Tonnes)	Sugarcane Crushed (in tonnes)	Sugar produced in (Quintals) crushing	Days of Recovery of sugar (in %)	Price paid (Rs. per tonn) (1986-87)	
1	Bhogavati Sahakari Sakhar Karkhana Ltd. (Parite)	2,000	4,97,016	5,94,828	179	11.97	374.0
2	Shri. Chh. Shahu Sahakari Sakhar Karkhana Ltd. (Kagal)	1,250	2,52,177	2,89,294	160	11.47	326.0
3	Datta Shetkari Sahakari Sakhar Karkhana (Asurle Porle)	1,250	2,42,884	2,64,431	159	10.89	325.0
4	Daulat Shetkari Sahakari Sakhar Karkhana Ltd. (Halkarni)	2,000	3,58,615	4,11,822	178	11.48	325.0
5	Doodh Ganga Ved Ganga Sahari Sakhar Karkhana Ltd. (Bidri)	3,500	4,60,661	5,47,154	144	11.88	288.0
6	Datta Sahakari Sakhar Karkhana Ltd. (Shirol)	2,500	4,71,121	5,74,946	190	12.13	350.0
7	Gadhinglaj Sahakari Sakhar Karkhana Ltd. (Gadhinglaj)	2,000	3,79,847	4,34,355	177	11.43	320.0
8	Kumbhi Kasari Sahakari Sakhar Karkhana Ltd. (Kuditre)	3,000	5,18,469	6,20,707	160	11.97	350.0
9	Panchanganga Sahakari Sakhar Karkhana Ltd. (Ichalkaranji)	5,000	9,22,710	10,47,613	194	11.47	--
10	Warana Sahakari Sakhar Karkhana Ltd. (Warananagar)	3,000	5,82,485	7,06,674	172	12.13	363.0
11	Chh. Rajaram Sahakari Sakhar Karkhana Ltd. (Kasaba Bavada)	2,200	3,53,405	3,94,240	163	11.15	325.0

TABLE NO.1.8

SUGAR PRODUCTIONWISE RANKING OF SUGAR COOPERATIVES IN KOLHAPUR
DISTRICT

Sr.No.	Name of Cooperative sugar Factory	Sugar produced in (Quentals)
1.	Panchangaga Sahakari Sakhar Karkhana Ltd. Ichalkaranji.	10,47,613
2	Warana Sahakari Sakhar Karkhana Ltd. Warananagar	7,06,674
3	Kumbhi Kasari Sahakari Shakhar Karkhana Ltd. Kuditre	6,20,707
4	Bhogavati Sahakari Shakhar Karkhana Ltd. Parite	5,94,828
5	Shri. Datta Sahakari Sakhar Karkhana Ltd. Shirol	5,74,946
6	Doodh Ganga Ved Ganga Sahakari Sakhar Karkhana Ltd. Bidri	5,47,154
7	Gadhinglaj Sahakari Sakhar Karkhana Ltd. Gadhinglaj	4,34,355
8	Daulat Shetkari Sahakari Sakhar Karkhana Ltd. Halkarni	4,11,822
9	Chh. Rajaram Sahakari Sakhar Karkhana Ltd. Kasaba Bavada	3,94,240
10	Chh. Shahu Sahakari Sakhar Karkhana Ltd. Kagal	2,89,294
11	Datta Shetkari Sahakari Sakhar Karkhana Ltd. Asurle Porle	2,64,431

TABLE NO.1.9

RECOVERY WISE RANKING OF SUGAR COOPERATIVES IN KOLHAPUR DISTRICT
(1987-1988)

6

<u>Sr. No.</u>	<u>Name of Cooperative sugar factory</u>	<u>Sugar Recovery</u>	<u>Rank</u>
1.	Warana Sahakari Sakhar Karkhana Ltd. Warananagar	12.13	1
2.	Datta Sahakari Sakhar Karkhana Ltd. Shirol	12.13	1
3.	Bhogavati Sahari Sakhar Karkhana Ltd. Parite	11.97	2
4.	Kumbhi Kasari Sahakari Sakhar Karkhana Ltd. Kuditre	11.97	2
5.	Doodh Ganga Ved Ganga Sahakari Sakhar Karkhana Ltd. Bidri	11.88	3
6.	Daulat Shetkari Sahakari Shakhar Karkhana Ltd. Asurle Porle	11.48	4
7.	Shri. Chh. Shahu Sahakari Sakhar Karkhana Ltd. Kagal	11.47	5
8.	Panchganga Sahakari Shakhar Karkhana Ltd. Ichalkaranji	11.47	5
9.	Gadhinglaj Sahakari Sakhar Karkhana Ltd. Gadhinglaj	11.43	6
10.	Chh. Rajaram Sahakari Sakhar Karkhana Ltd. Kasaba Bavada	11.15	7
11.	Datta Shetkari Sahakari Sakhar Karkhana Ltd. Asurle Porle	10.89	8

TABLE NO.1,10

PRICE WISE RANKING OF SUGAR COOPERATIVES IN KOLHAPUR DISTRICT (86-87)

Sr.No.	Name of Cooperative sugar factory	Price paid in Rs. per tonne	Ranking
1.	Bhogavati Sahakari Sakhar Karkhana Ltd. Parite	374	1
2	Warana Sahakari Sakhar Karkhana Ltd. Warananagar	363	2
3	Shri. Dattu Sahakari Sakhar Karkhana Ltd. Shirol	350	3
4	Kumbhi Kasari Sahakari Sakhar Karkhana Ltd. Kuditre	350	3
5	Chh. Shahu Sahakari Sakhar Karkhana Ltd. Kagal	326	4
6	Datta Shetkari Sahakari Sakhar Karkhana Ltd. Asurle Porle	325	5
7	Daulet Shetkari Sahakari Sakhar Karkhana Ltd. Halkarai	325	5
8	Chh. Rajaram Sahakari Sakhar Karkhana Ltd. Kasaba Bavada	325	5
9	Gadhinglaj Sahakari Sakhar Karkhana Ltd. Gadhinglaj	320	6
10	Doodh Ganga Ved Ganga Sahakari Sakhar Karkhana Ltd. Bidri	288	7
11	Panchanganga Sahakari Sakhar Karkhana Ltd. Ichalkaranji	-	-

Sr.No.	Name of cooperative sugar factory	Sugar cane crushed in M. tonnes.	Days of crushing	Installed capacity	Utilised capacity in %
1.	Panchanganga Sahakari Sakhar Karkhana Ltd. Ichalkaranji	9,22,710	194	5,000	95.12
2	Warana Sahakari Sakhar Karkhana Ltd. Warananagar	5,82,485	172	3,000	112.88*
3	Kumbhi Kasari Sahakari Sakhar Karkhana Ltd. Kuditre	5,18,469	160	3,000	108.01*
4	Bhogavati Sahakari Sakhar Karkhana Ltd. Parite	4,97,016	179	2,000	138.83*
5	Datta Sahakari Sakhar Karkhana Ltd. Shirol	4,71,121	190	2,500	99.18
6	Doodh Ganga Ved Ganga Sahakari Sakhar Karkhana Ltd. Bidri	4,60,661	144	3,500	91.40
7	Gadhinglaj Sahakari Sakhar Karkhana Ltd. Gadhinglaj	3,79,847	177	2,000	107.30*
8	Daulat Shetkari Sahakari Sakhar Karkhana Ltd. Halkarai	3,58,615	178	2,000	100.73*
9	Chh. Rajaram Sahakari Sakhar Karkhana Ltd. Kasaba Bavada	3,53,405	163	2,200	98.55
10	Chh. Shahu Sahakari Sakhar Karkhana Ltd. Kagal	2,52,177	160	1,250	126.08*
11	Datta Shetkari Sahakari Sakhar Karkhana Ltd. Asurle Porle	2,42,884	159	1,250	122.20*

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

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TABLE NO.1.11

TABLE SHOWING CAPACITY UTILISATION OF SUGAR COOPERATIVES IN KOLHAPUR DISTRICT (1987-88)

The present study is an attempt to know the and examine the performance of a sugar cooperative factory and to evaluate the impact of cooperative factory on sugar cane producer members. For this purpose Chh. Shahu Sahakari Sakhar Karkhana Ltd. Kagal is selected as a representative sample of all other sugar factories located in the district. More details regarding objectives, methodology etc have been given in Chapter II.

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