

## CHAPTER - I

### INTRODUCTION

(A) SUBJECT MATTER :

- (1) Sugar Industry : All India Level.
- (2) Position in the State of Maharashtra.
- (3) Sugarcane Production : All India Level.
- (4) Sugarcane Production in Maharashtra.
- (5) Need for Adopting Measures to Increase Sugarcane Production at Rajaram Karkhana.

(B) METHODOLOGY :

- (1) Scope and objectives of the study.
- (2) Methods of data collection.
- (3) Chapter scheme.
- (4) Limitations of the study.

## CHAPTER - I

### I N T R O D U C T I O N

#### A) SUBJECT MATTER :

Indian Sugar Industry being the second largest organised industry next in importance to textile industry, plays an eminent role in economic life of India. This is the industry best suited to promote rural transformation. The most outstanding feature of the industry is the vital link between the factory and cultivators, whose interest and well being are inter-dependent on each other.

#### (1) SUGAR INDUSTRY :

In India the British Government did not realise the full significance of the development of sugar industry until after the First World War inspite of its national importance from the view point of agricultural, rural and industrial economy. Indian Fiscal Commission in its report in 1922 prepared ground for protection to Sugar Industry. The Tarrif Board appointed in 1930, submitted a comprehensive report in 1931, with recommendation for awarding protection to Sugar Industry for a period of 15 years.

...2...

India became self-sufficient in the matter of sugar supply within a short period of four years after grant of protection. Indian Sugar Syndicate was formed in 1937, comprising over 90 mills. The Tariff Board extended the protection upto 31st March, 1949. During the period 1942-43 till 1950-51 the Sugar Industry of India had to pass through a difficult time, on account of the instability of sugar-cane supplies caused by the Government's preference to food crops during the war years. Following table shows the development of Sugar Industry and sugar production in pre-independence period.

Table 1.1 : Statement Showing Number of Sugar Factories and Sugar Production.

Year	No.of Factories	Sugar Production in (lakh tonnes)
1930-31	29	1.2
1935-36	135	9.3
1940-41	148	11.1
1945-46	145	9.6

SOURCE : Co-operative Sugar, May 1983.

...3...

The Sugar Industry received its due share of consideration in the Five years plans. Under the Industries (Development and Regulation) Act 1951, regulation of the Sugar Industry came under the control of Government of India for the first time. Thus the new era commenced for the Sugar Industry in 1951. In 1950-51 there were 139 Sugar Factories in India of which 3 were co-operative and 136 Joint stock and other factories. New Sugar Factories to be set up in future were subjected to the provisions of Industries (Development and Regulation) Act, 1959.

The first enquiry into the cost structure and fair price payable to the sugar industry was held in 1958-59 by the Tariff Commission which submitted its report to the Govt. in September 1959. The Govt. of India in 1958 also appointed a Fact Finding Committee on Khandsari Sugar to ascertain its position vis-a-vis that of sugar, the extent of diversion of cane to khandsari in Factory zones and to suggest measures necessary to meet the situation. In June 1963, the Govt. of India appointed a Committee on Rehabilitation and Modernisation on Sugar Factories in India to examine the problems of the old and uneconomic units in sugar industry. In 1964, a Sugar Inquiry Commission was appointed to make a comprehensive enquiry into the various aspects of Sugar Industry including the economics of sugar production and its cost structure.

The cost schedules recommended by the commission in its report were adopted by the Govt. for fixing ex-factory price of sugar during 1965-66 to 1968-69.

"At the time of the inquiry by the Commission in 1969, there were 205 units manufacturing sugar. The number of units manufacturing sugar increased to 229 in 1971-72 of which 124 were in sub-tropical region and 105 in tropical belt."<sup>1</sup>

The number of factories under co-operative sector was more than one-third of the total number of the sugar factories in this country in 1974-75. The most significant development in the Indian Sugar Industry during period 1950-1975 was the emergence and rapid growth of the co-operative sector primarily due to the preferential treatment given to this sector by the Govt. in according licence and giving financial assistance. "Of the 96 factories working under co-operative sector in India in 1974-75 more than one-third were established in Maharashtra." In 1974-75, the number of sugar factories in Maharashtra under co-operative sector was 42."<sup>2</sup> The sugar Industry had achieved a sugar output 47.9 lakh tonnes in 1974-75.

Due to abundance of cane supply and its lower off-take by Gur and Khandsari producers, the sugar factories had to crush more cane during 1977-78 season utilising

37% of the cane crop as against their normal intake of about 30%. The industry achieved a record sugar production of 64.72 lakh tonnes by continuing crushing during the hot summer months with an installed capacity of about 55 lakh tonnes.

"India had the unique distinction of being the world's largest producer of sugar in 1981-82 with 8.4 million tonnes exceeding the production of Cuba and Brazil. In 1981-82 the number of sugar factories was 314. India relegated to the second position next to Brazil in the season 1982-83." <sup>3</sup>

"The number of sugar mills in India has increased from 325 in 1983-84 to 339 in 1985-86. The number of working factories during 1986-87 was 354 and it increased to 357 in 1987-88. As at the end of July 1989 there are 392 working sugar factories in the country.

Following table shows the progress of sugar industry after independence.

Table No.1.2 : Statement Showing Number of Sugar Factories and Sugar Production.

Year	No.of factories	Sugar Production in lakh tonnes
1950-51	139	11.00
1955-56	143	18.34
1960-61	174	30.21
1965-66	200	35.41
1970-71	215	37.40
1975-76	252	42.62
1980-81	315	51.62
1985-86	342	70.16
1988-89	365	87.52

SOURCE : Co-operative Sugar April 1990  
(Sugar Statistics).

**(2) POSITION IN THE STATE OF MAHARASHTRA :**

Maharashtra's contribution to the development of sugar industry has been phenomenal after 1950.

The tariff protection given to Sugar Industry gave a boost for formation and development of sugar factories in

...7...

Maharashtra also. "Upto 1950-51, 12 sugar factories were established." 4

The second phase of development of sugar industry in Maharashtra started with the establishment of first co-operative factory at Pravaranagar (Dist.Ahmednagar) in the year 1950 under the able and imaginative leadership of Dr. D.R. Gadgil and Shri V.K.Patil. The establishment and successful working of Pravara Co-operative Sugar Factory, paved the way for the establishment of many more factories on co-operative lines. The enlightened and dedicated leadership in the co-operative movement and liberal assistance from Government and financial institutions helped the co-operative sugar industry to make a rapid progress. The growth of sugar factories in Maharashtra can be seen from the table given below.



Table No. 1.3 : Statement Showing Number of Sugar Factories Working in Maharashtra.

Year	Jt. Stock Factories	Co-operative Gsctories	Total
1940-41	12	-	12
1950-51	12	-	12
1960-61	11	17	28
1970-71	11	31	42
1980-81	11	67	78
1988-89	5	90	95

SOURCE : (1) 36th Annual Convention Deccan Sugar Technologists Association.

(2) Co-operative Sugar : April, 1990 (Sugar Statistics).

At present (i.e. July 1989) there are 97 co-operative sugar factories in operation. "Out of all the states in India, Maharashtra has the highest number of co-operative sugar factories and accounting for 30 to 35% of total sugar produced in the country." <sup>5</sup>

**(3) SUGARCANE PRODUCTION IN INDIA :**

Like all other industries, the success of sugar industry also depends on the adequate quantity of quality raw material, i.e. sugarcane. After the peak production of 84.37 lakhs tonnes of sugar during 1981-82, India established its number one position in the world sugar production. After this there has been continuous fall thereby creating an anxiety for the planners. Following table shows the total production of sugar, area under sugarcane, sugarcane production, number of factories, yield per hectare and average recovery percentage from 1981-82 to 1988-89.

Table No.1.4 : Statement Showing Area under Sugarcane, Sugarcane Production, Sugar Production, No.of Factories, Yield per Hectare and Recovery Percentage.

Year	Total area in lakh hectares	Sugarcane Production tonnes million	No.of factories	Sugar production in lakh	Yield per hectare	Recovery percentage
1981-82	31.93	186	320	84.37	58.4	9.66
1982-83	33.58	190	321	82.29	56.4	9.95
1983-84	31.10	174	326	59.17	56.0	10.02
1984-85	29.53	170	339	61.44	57.7	10.22
1985-86	28.50	171	342	70.16	59.9	10.23
1986-87	30.79	186	354	85.02	60.4	9.98
1987-88	32.79	197	357	91.02	60.0	9.70
1988-89	33.73	205	365	87.52	60.7	10.22

SOURCE : Co-operative Sugar : April 1990  
(Sugar Statistics).

The above table shows that the area under sugarcane in 1981-82 was 31.93 lakh hectares which was increased to 33.58 lakh hectares in 1982-83. However, the area under sugarcane in 1983-84, 1984-85, 1985-86 and 1986-87 declined to 31.10, 29.53, 28.50 and 30.79 lakh hectares respectively. In 1987-88 and 1988-89 the area under sugarcane increased to 32.79 lakh hectares and 33.73 lakh hectares respectively.

The Sugarcane production in 1981-82 was 186 million tonnes, which was marginally increased to 190 million tonnes in 1982-83. However, the sugarcane production in 1983-84, 1984-85 and 1985-86 declined to 174, 170, 171 million tonnes respectively as compared to sugarcane production in 1981-82. In 1986-87, 1987-88 and 1988-89 the sugarcane production increased to 186, 197 and 205 million tonnes respectively.

The Yield per hectare increased from 58.4 tonnes in 1981-82 to 67.7 tonnes in 1988-89. The average recovery percentage increased from 9.66 in 1981-82 to 10.22 in 1988-89.

The number of sugar factories increased from 320 in 1981-82 to 365 in 1988-89, but sugar production increased from 84.37 lakh tonnes in 1981-82 to 87.52 lakh tonnes in 1988-89. There has not been any sufficient

...ll...

contribution by sugar factories to sugar production. The main reason for this factor is that, the increase in sugarcane production is not adequate to meet satisfactorily the requirement of cane of the established sugar factories. The addition of new sugar factories proposed to come in the near future is likely to aggravate the supply position of sugarcane to sugar factories unless some serious efforts are made. In the above context all efforts are therefore to be concentrated to get sugarcane of good quality in required quantity. So the role of Sugarcane Development Section of sugar factories, therefore, assumes special importance.

**(4) SUGARCANE PRODUCTION IN MAHARASHTRA :**

Coming to the problem faced by a number of sugar factories in Maharashtra it would be observed that the area under sugarcane and number of sugar factories are increasing year by year but the sugarcane production unfortunately has not increased satisfactorily. "The picture of Maharashtra's sugar industry is not satisfactory as it should be, as about thirty factories are precariously sick and six sugar factories were not in operation during last two seasons i.e. 1986-87 and 1987-88, for want of cane supply."<sup>6</sup> Similarly the drought conditions coupled with decreased and prolonged irrigation water supply rotation have reduced the average

yield per hectare. The progress of sugar industry of Maharashtra is as under.

Table No.1.5 : Statement Showing Progress of Sugar Industry in Maharashtra.

Particulars	1981-82	1988-89
(1) Cane area in lakh hectare.	297	314
(2) Sugarcane production in lakh tonnes.	287	225
(3) Total No.of factories	78	95
(4) Average yield per hectare in M.T.	96.9	81.1
(5) Sugar production in lakh tonnes	30.26	26.29
(6) Average Recovery Percentage	10.70	11.05

SOURCE : Co-operative Sugar : April, 1990  
(Sugar Statistics).

The above pictures is enough to show the gravity of the situation under which the sugar factories in the State of Maharashtra are operating.

The number of co-operative sugar factories is increasing day by day. There is competition for procuring cane. At the same time the authorities realised that per

hectare yield is going down. The leaders of co-operative sugar factories realised the need of cane development work in their operational area.

Scarcity of raw material has proved to be greatest bottleneck in keeping the industry in sound health. Sugar-cane should be made available not only for the existing capacity but for the expansion to take place later on. A fair price to the farmers and sustained cane development efforts should help in increasing sugarcane production, productivity and its availability to sugar factories. Therefore, cane development efforts have been the integral part of the activities of the factory.

(5) NEED FOR ADOPTING MEASURES TO INCREASE SUGARCANE PRODUCTION :

Rajarambapu Patil Sahakari Sakhar Karkhana Ltd., Rajaramnagar (henceforth called Rajaram Karkhana) has been operating in Sangli District since 1969. After achieving a desired level of financial stability, it has increased its crushing capacity from 1250 TCD to 2000 TCD in 1978. With the increased crushing capacity, the Karkhana felt need of more sugarcane.

The Sugarcane Control Order of Government provides for reservation of areas or zones. As per this order in

"Reserved Area" the Karkhana has a right to purchase cane offered for sale and in an "Assigned Area" more than one factory can purchase specified quantity of cane. The area of operation the Karkhana was of 83 villages (Reserved Area) upto 1987-88, which was increased to 103 villages in 1988-89. So Rajaram Karkhana has to obtain maximum sugarcane from within the area of its operation.

In its area of operation of Rajaram Karkhana, Hutatma Kisan Ahir Sahakari Sakhar Karkhana Ltd., Walwa (Dist. Sangli) has been operating since 1983 and 15 villages were allotted to this Karkhana from the area of operation of Rajaram Karkhana. This has resulted in diversion of sugarcane.

In the area of operation of Rajaram Karkhana, Krishna Sahakari Sakhar Karkhana Ltd., Rethare-budruk (Dist. Satara), Warana Sahakari sakhar Karkhana Ltd., Warnanagar (Dist. Kolhapur), Shetakari Sahakari Sakhar Karkhana Ltd., Sangli, Viswas Sahakari Sakhar Karkhana Ltd., Shirala, (Dist. Sangli) and other factories in Sangli District purchase sugarcane. Thus there is diversion of sugarcane.

Though there is a ban on Gur and Khandsari Units, certain portion of sugarcane production is used by Gur

producing and khandsari units. So there is diversion of sugarcane from sugar factory to Gur and Khandsari units.

Increasing sugarcane production in the area of Rajaram Karkhana was the only solution to the problem. Rajaram Karkhana therefore, adopted measures like creating irrigation facilities, giving credit facilities to the cane growers, construction and maintainance of roads, providing improved varieties of seeds, supplying fertilizers and pesticides etc., for increasing sugarcane production. Therefore, the researcher felt that this aspect of the working of Rajaram Karkhana may be studied in details for the purpose of writing the dissertation for M.Phil course.

**B) METHODOLOGY :**

**(1) SCOPE AND OBJECTIVES OF THE STUDY :**

**(a) Scope of the study ;**

This dissertation attempts to visualise the most outstanding features of the Sugarcane Development Programme only. So the study is mainly concerned with the measures adopted for increasing sugarcane production by Rajaram Karkhana.



**(b) Objectives of the study ;**

The present study is undertaken with the following specific objectives -

- i) To study measures adopted for increasing sugarcane production by Rajaram Karkhana.
- ii) To study the impact of these measures on sugarcane production in the area of operation of the Rajaram Karkhana.
- iii) To make necessary suggestions, if any, for the purpose of improvement.

**(2) METHODS OF DATA COLLECTION :**

The present study is mainly concerned with the measures adopted for increasing sugarcane production by Rajaram Karkhana, so the required data for the study are to be collected more from documentary sources rather than field sources. Following methods of data collection were used by the researcher -

**(a) Primary Data :**

For collecting primary data personal interviews were carried out. The personal interviews of

Managing Director, Agriculture Officer, Chief Sugarcane Development Officer, Cane Supply Officer, Water Management Officer, Chief Engineer in Irrigation and Civil Department, Chief Soil testing chemist were carried out. The informations given by them was duly recorded. The informal discussion with the field staff was also carried-out.

**(b) Secondary Data :**

Secondary data useful for this study was collected from the following published and unpublished sources.

**i) Published Sources :**

The Annual Reports for the period from 1979-80 to 1988-89 were collected from the Karkhana office. Necessary data were collected from these Reports as well as published books and journals on Sugar Industry.

**ii) Unpublished Sources :**

Office records of the various departments of Rajaram Karkhana were used for the required data to be collected.

Impact of measures taken has been ascertained on the basis of data collected and their analysis made after discussions with various officers of the Karkhana.

**(3) CHAPTER SCHEME :**

The present study is divided into six chapters, as detailed below :-

Chapter No.	Title of chapter	Contents
I	INTRODUCTION :	
	(A) Subject matter.	: Sugar Industry and Sugarcane production in India and Maharashtra. Need for adopting measures to increase sugarcane production.
	(B) Methodology	: Scope and objectives of study, methods of data collection and limitations of the study.
II	PROFILE OF RAJARAM KARKHANA :	: Details on historical developments, operational aspects including organisation structure and operating results.

Chapter No.	Title of chapter	Contents
III	MEASURES FOR INCREASING SUGAR-CANE PRODUCTION-I.	: The detailed explanation of the first two measures, i.e. Supply of Seeds and irrigation facilities.
IV	MEASURES FOR INCREASING SUGAR-CANE PRODUCTION-II	: The detailed explanation of the remaining measures.
V	IMPACT OF MEASURES TAKEN	: Narrates effect of measures on area under sugarcane, yield per hectare, sugarcane production and average recovery percentage.
VI	SUMMARY AND CONCLUSIONS	: Important findings and conclusions of the study, and suggestions made.

**(4) LIMITATIONS OF THE STUDY :**

The limitations of the study are as follows :-

- (1) Though Managing Director, various Departmental Heads and office staff of Rajaram Karkhana have given their full co-operation in supplying the

necessary informations, lack of proper system of maintaining records created problems in obtaining adequate and required data.

- (2) Rajaram Karkhana has adopted number of measures at one and same time every year, therefore ascertainment of impact of individual measures was found to be difficult. Total impact, however, could be measured in terms of acreage, cane production and recovery percentage.

REFERENCE

- (1) Sinha Ram Vihar (1988)  
Sugar Industry in India.  
Deep and Deep Publications,  
New Delhi - Page - 9.
- (2) Agarwal R.N. (1983)  
Sugar Industry In India.  
Popular Prakashan,  
Bombay - Page - 27.
- (3) National Federation of Co-operative Sugar  
New Delhi -  
Co-operative Sugar  
January 1986 - Vol. 17  
Page 387.
- (4) Deccan Sugar Technologist Association, Pune  
36th Annual Convention Part-I - 1986  
Page - S.A. 26
- (5) The Maharashtra Rajya Sahakari Sangh, Pune  
Godawa - May, 1990  
Page - 5.
- (6) National Federation of Co-operative Sugar,  
New Delhi.  
Co-operative Sugar  
August, 1989  
Page - 833.