

## C H A P T E R - II

### PROFILE OF THE GROWTH AND DEVELOPMENT OF THE SHREE DATTA FARMERS' CO-OPERATIVE SUGAR FACTORY LIMITED, SHIROL, DISTRICT KOLHAPUR.

#### INTRODUCTION :

Sugar co-operatives in Maharashtra have proved to be the most appropriate enterprises for the basis of agro-based rural industrial development. Their growth has also brought in a change in cropping pattern with increase in sugarcane production, improves irrigational facilities, development of various area development programmes which have resulted in rural transformation and change and have brought economic prosperity to the cane growing farmers. Process of a industrial unit diversifying its product range, and a initial co-operative enterprise setting up a chain of other co-operative societies in the field of agricultural marketing, credit supply, processing, dairy, etc. also have materialised in Western Maharashtra. Proper State Government encouragement, liberal financial assistance from financial institutions, growth of 'local co-operative leadership core', are some of the main factors helpful to this success story. The following chapter makes an attempt to review the growth and development of the co-operative sugar factory under study.

## 2.1 PROGRESS OF SUGAR FACTORIES IN MAHARASHTRA :

Maharashtra State is one of the leading states in the growth and diversification of co-operative enterprise. The special feature of the co-operative movement in Maharashtra is the establishment of co-operative sugar factories. Co-operative sugar factories particularly in Western Maharashtra and more so in the Kolhapur district are the most significant form of agro-processing industries and the growth centres of rural, social development and change.

The Loni (Pravaranagar) Co-operative Sugar Factory which was established in December, 1948 was the first farmers own co-operative sugar factory venture in India. Taking the guidance of the Late Hon. Dr. D. R. Gadgil, Hon. Padamshree V. K. Patil of Loni Budruk in Ahmednagar district launched the first co-operative sugar factory. The pivotal role of Hon. V. K. Patil who acted as the focal point of 'local leadership' which is essential for the formation of a co-operative enterprise has to be emphasised. It was due to him that local rural farmers confidence in a new form of co-operative sugar enterprise - did materialise. He succeeded to mobilise all small farmers around him and collect the share capital needed. In spite of early losses, the farmers

always maintained 'members loyalty' with the co-operative unit and hence his role is crucial and important. The major role played by Vaikunthbhai Mehta who was the then Minister for Co-operation is also well-known. Vaikunthbhai Mehta wrote a confidential letter to Pandit Jawaharlal Nehru, informing him that if the co-operative sugar factory were denied industrial licences the agriculturists would lose their only occupation and source of livelihood and will be turned into labourers. Later Bhausahab Hire raised the question in the National Development Council and informed the Central Government that the Maharashtra Government would not give any industrial licence to private individuals in Bombay Province to set up sugar factories. Hon. Y. B. Chavan also favoured the same policy.

After independence Maharashtra emerged as a leading state in sugar production. In Maharashtra the area under sugarcane increased from 1.71 lakhs hectares to 4.04 lakh hectares implying 136% increase during 1965 to 1993. At the national level, the share of Maharashtra in sugar production also increased from 23% to 31.7% during 1965-66 to 1992-93. The increase in sugar production in Maharashtra resulted in an increase in consumption of sugar also. Maharashtra's

sugar consumption is highest in all the states. It was 148 thousand tonnes in 1981-82, which increased to 1,710 thousand tonnes in 1990-91.<sup>(1)</sup>

Upto the year 1994, 378 co-operative sugar factories were in the country of which, there are 106 sugar factories in Maharashtra. Out of which 102 are in the co-operative sector and 4 in private sector producing 34% of the total production in India and annual sugar production being 48.40 lakhs tonnes.<sup>(2)</sup>

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SOURCE : 1) Performance of Sugar Factories in Maharashtra, 1992-93.

2) 'Godva', July, 1994.

TABLE NO. 2.1 : PROGRESS OF SUGAR FACTORIES IN MAHARASHTRA

Sr. No.	1983	1984	1985	1986	1987	1988	1989	1990	1991
1. Factories Registered	88	98	100	101	100	105	116	124	138
2. Factories in Production	67	67	77	80	84	85	90	92	93
3. Membership (00)	5,558	5,900	6,151	6,214	6,995	7,000	7,500	8,431	9,140
4. Of whom Cane Growers	5,489	5,800	6,012	6,154	6,711	6,800	6,900	8,232	8,900
5. Share Capital (In Rs.)	12,616	15,000	16,743	20,935	21,478	22,000	23,000	27,078	28,885
6. Installed Capacity(T.C.D.)	121	122	132	149	150	156	163	173	292
7. Sugarcane crushed quantity (M.T. 000)	24,567	16,170	19,065	19,612	20,631	24,819	23,115	35,500	37,231
8. Sugar Produced Quantity (M.T. 000)	2,696	1,803	2,121	2,209	2,270	2,691	2,556	3,806	4,010
Value(InRs.)	94,354	63,114	78,483	94,987	1,13,500	1,48,060	1,53,360	2,66,957	2,30,742

SOURCE : Co-operative Movement At a Glance in Maharashtra State, 1988, 1989, 1990, 1991 and 1992.

NOTE : (1) Rs. in Lakhs, (2) Members in hundred, (3) Quantity in thousand tonnes, (4) T.C.D. (Tonnes Crushing Per Day in Thousand), (5) 1983-to 1987 years are September ending, (6) 1987 to 1991 years are March ending.

The progress of the sugar factories in Maharashtra can be seen from the above Table No. 2.1. The table highlights the following main points :

- a) The total number of factories registered in the state have increased from 88 in 1983 to 138 in 1991. The number of factories in production have increased from 67 in 1983 to 93 in 1991.
- b) The total number of membership has increased from 5,558 hundred in 1983 to 9,140 hundred in 1991.
- c) The share capital has increased from 12,616 lakhs in 1983 to 28,885 lakhs in 1991.
- d) The total installed capacity (TCD) has increased from 121 in 1983 to 292 in 1991. 9.
- e) The total sugarcane crushed has increased from 24,567 thousand M.T. in 1983 to 38,231 thousand M.T. in 1991.
- f) The total production has increased from 2,696 thousand M.T. in 1983 to 4,010 thousand M.T. in 1991 and the value received from it has increased from 94,354 lakhs in 1983 to 2,30,742 lakhs in 1991.

## 2.2 PERFORMANCE OF SUGAR FACTORIES IN KOLHAPUR DISTRICT :

On the basis of sugar recovery, the entire Maharashtra State is divided into three zones - (i) high recovery zone, (ii) medium recovery zone and (iii) low recovery zone. Kolhapur district is included in high recovery zone. Kolhapur region shows neither over utilisation nor under utilisation of capacity implying that sugar factories of this region have kept a proper balance between cane availability and crushing capacity. Another important criteria of measuring the performance of sugar co-operatives is the cost of production and the price paid to the cane growers. The cost of production is lowest and the price paid to the farmers is highest in Kolhapur region, as compared to other regions. (3)

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SOURCE : (3) "Souvenir" of the 54th Annual Conference of Indian Society of Agricultural Economics, November, 1994 (Shivaji University, Department of Economics publication).

TABLE NO. 2.2 : PERFORMANCE OF CO-OPERATIVE SUGAR FACTORIES IN KOLAHPUR DISTRICT

Sr. No.	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
1. No. of Factories (In production)	11	11	11	11	11	11
2. Installed Capacity	-	25,700	26,200	-	29,700	-
3. Members (Total) (00)	-	97,335	1,10,523	-	1,16,038	-
4. Cane Growers	-	94,176	1,09,077	-	1,14,333	-
5. Paid-up Share Capital	-	2,112	2,417	-	2,530	2,600
6. Sugarcane Crushed (M.T. 000)	34.94	44.51	50.42	43.17	50.38	53.54
7. Sugar produced (M.T. 000)	4.11	5.32	5.89	5.06	5.78	6.26
8. Recovery (Percentage)	11.77	11.52	11.67	11.71	11.47	11.67
9. No. of days in Season	135	161	172	151	180	-

SOURCE : Co-operative Movement At a Glance in Maharashtra State, 1988, 1989, 1990, 1991 & 1992.

NOTE : 1) Members in hundred  
 2) Quantity in thousand tonnes.  
 3) 1983 to 1987 years are September ending  
 4) 1987 to 1991 years are March ending.



The performance of co-operative sugar factories in Kolhapur district can be seen from the Table No. 2.2. The table reveals that -

- a) The number of factories in production in the year 1985-86 were 11 and upto 1991 they were the same in 1994 they were 12.
- b) The total number of members have increased from 97.33 lakhs in 1986-87 to 116.04 lakhs in 1989-90.
- c) The amount of paid-up share capital has increased from 2,112 lakhs in 1986-87 to 2,600 lakhs in 1990-91.
- d) The total sugarcane crushed has increased from 34.94 thousand M.T. in 1985-86 to 53.54 thousand M.T. in 1990-91.
- e) The total sugar production has increased from 4.11 thousand M.T. in 1985-86 to 6.26 thousand M.T. in 1990-91.
- f) Installed capacity of the factories shows an increase. This is due to growth in number of factories as well as expansion of the installed capacity of each existing factory.

2.3 BRIEF REVIEW OF THE GROWTH AND DEVELOPMENT OF  
SHREE DATTA FARMERS' CO-OPERATIVE SUGAR  
FACTORY LIMITED, DATTANAGAR, SHIROL :

"Shirol" taluka of Kolhapur district is gifted with presence of natural irrigation potential on account of five rivers viz. Krishna, Panchaganga, Warana, Dudhganga and Vedganga and a fertile soil and abundance of ground water.

The sugarcane growers in this area were very eager to have a sugar factory so as to ensure alround development and economic prosperity to the poor and marginal farmers. A preliminary meeting was therefore held at Kurundwad in Shirol taluka on 31st December, 1960 for the establishment of a co-operative sugar factory.

The co-operative sugar factory is situated on the Jaysingpur - Shirol road. The factory was the outcome of the pioneering efforts of the Late Shri Dattajirao Kadam, Ex. M. P. and Shrimant Vishwasrao S. Ghorpade Dattawadkar Sarkar. They were the founder fathers of this co-operative sugar enterprise.

### 2.3.1 REGISTRATION OF THE FACTORY :

Shree Datta Shetkari Sahakari Sakhar Karkhana Ltd. Shirol was registered as a co-operative societies under the Section 9(I) of Maharashtra State Co-operative Societies Act, 1960 (Maharashtra Act XXVI of 1961) on 9th June, 1969 the registration number of the society being KPR/PRG/(A)-1 and the same has been classified as processing society sub-class agricultural processing society Section 12(I) of the said Act read with the Maharashtra Co-operative Rule No. 10(1). An Industrial Licence No. L/25/N-223/70-LC at 10 June, 1970 for establishing a sugar factory on co-operative basis with initial crushing capacity of 1,250 M.T. per day was issued. Subsequently, this sanction enthused a spirit of co-operation besides creating confidence and developing an attitude of self-reliance amongst the economically backward and down-trodden farmers of the area.

### 2.3.2 AIMS AND OBJECTIVES OF THE FACTORY :

The aims and objectives of the co-operative sugar factory are to secure social justice and develop water technology in agricultural operations and other objectives, such as to improve the economic conditions of the agriculturists through the co-operative processing and marketing

of their products mainly of sugarcane and its by-products. Shirol taluka and the nearby areas, get scanty rainfall and hence if sugarcane cultivation has to grow it was necessary that the factory develop various co-operative lift schemes and use the rich ground-water facilities of the area. It was this important aspect of rural development that was also given priority by the factory to ensure adequate and timely supply of cane. The hereby Shree Panchaganga Co-operative Factory, at Ichalkaranji had done such attempts and this proved beneficial. The factory under study has therefore rightly emphasised this aspect also. This was to be achieved by a process of diversification and the sugar enterprise did set up a Paper Plant and a Distillery Plant.

Besides attaining the economic upliftment of cane cultivators the co-operative leaders aimed at the spreading the weaker section of the community at large, a part of the gains arising from successful functioning of the sugar factory providing much needed irrigation facilities and disseminating technical guidance and agricultural expansion service to obtain high yields. In addition to this, other social activities like education, primary health, small agro-based industries and alround development of the farmers

is the primary aim. The co-operative sugar factory's agricultural extension service includes soil testing, provision of tractors, ploughing equipments, etc. to the member farmers.

### 2.3.3 PROJECT IMPLEMENTATION :

Shree Datta Shetkari Sahakari Sakhar Karkhana Ltd. Shirol is a farmers co-operative sugar factory. This factory is located in the industrially backward area of Kolhapur district near Shirol taluka and is the first sugar factory in the state to go into production amongst the twelve contemporary factories licenced in the year 1969. Due to the foresight and active participation of the co-operative leaders the project was implemented within a short span of about 22 months and first trail crushing operation started on the auspicious day of "VARSHAPRATIPADA" the 16th of March, 1972.

### 2.3.4 COST OF PROJECT :

As originally scheduled, the plant was to go into operation in the beginning of the year 1971 at an estimated cost of Rs. 2.50 crores. However, due to many uncontrollable factors actual production could be commenced only in the

month of March, 1972, due to which the project cost went up substantially on account of additional interest burden and other expenses. The project cost finally increased to the tune of Rs. 2.94 crores.

#### 2.3.5 CAPITAL POSITION :

The share capital collected from the sugarcane growers non-producer and institutions of the factory, collection of share capital from the members was a difficult task as the members of the sugar factory happened to be the poor farmers who were denied membership by the neighbouring co-operative sugar factory. Hence special efforts were made to persuade the Reserve Bank of India to issue authorisation for sanction and disbursement of term loans to the poor cultivator members for purchase of shares through the village level primary co-operatives credit societies. The Government of Maharashtra also contributed an amount of Rs. 45.00 lakhs towards share capital contribution. In this way the necessary share capital was raised. It must be mentioned here that it is the unique feature of all co-operative sugar factories in Maharashtra that nearly 80 to 90 per cent of share holding member farmers are small or marginal farmers only.

### 2.3.6 FINANCIAL POSITION :

The capital employed in the factory establishment was the highest on the other hand the labour productivity was found to be higher in the factory establishment. The Government of India was also approached with a request to delete the condition from the industrial licence for implementing the project without obtaining term loans from I.F.C.I./I.D.B.I. The Central Government was kind enough to accede to the request of the factory and accordingly a term loan of Rs. 150.00 lakhs was availed from I.F.C.I. in participation with L.I.C. The loan amount to has been fully repaid along with interest accrued thereon.

In the year 1983-84 the factory had obtained a term loan of Rs. 798.50 lakhs from I.F.C.I./L.I.C./I.D.B.I./I.C.I.C.I./ and from Maharashtra State Co-operative Bank Ltd., Bombay. The co-operative sugar factory has refunded Rs. 250.96 lakhs along with the interest on the same. In the year 1993-94 the factory again obtained a term loan of Rs. 3,849.59 lakhs from the Maharashtra State Co-operative Bank Ltd., Bombay, Land Development Bank Ltd., Central Government, National Development Corporation and SICOM in the same year factory has refunded an amount of Rs. 1,732.21 lakhs and the outstanding balance of loan was Rs. 2,117.48 lakhs.

TABLE NO. 2.3GROWTH OF SHARE HOLDING MEMBERS OF THE CO-OPERATIVESUGAR FACTORY

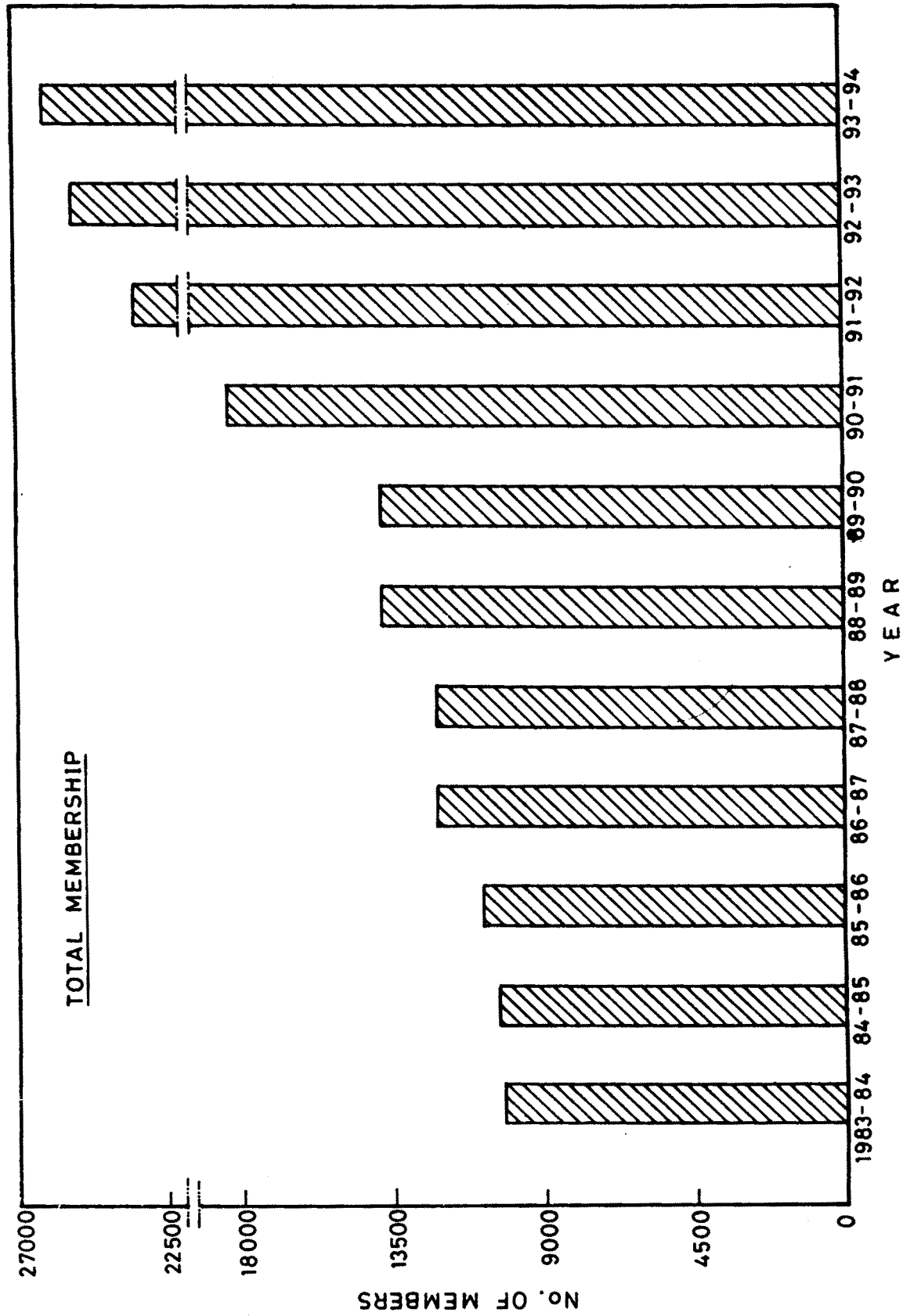
Year	No. of Members	No. of Shares	Amount Subscribed
1983-84	10,146	11,400	1,11,54,250
1984-85	10,406	11,777	1,15,55,750
1985-86	10,747	12,125	1,19,03,750
1986-87	12,119	13,539	1,33,46,000
1987-88	12,144	-	-
1988-89	13,737	15,157	1,49,74,000
1989-90	13,739	15,157	1,49,93,750
1990-91	18,426	19,848	1,96,85,000
1991-92	23,370	24,793	2,47,30,000
1992-93	25,905	26,285	2,70,85,000
1993-94	26,704	28,131	2,89,95,000

N.B. : Government of Maharashtra has contributed an amount of 45.00 lakhs towards share capital and upto the year 1993-94 factory has refunded Rs. 34.63 lakhs to Government of Maharashtra.

SOURCE : Annual Reports of the Shree Datta Shetkari Sahakari Sakhar Karkhana Ltd., Shirol, 1983-84 to 1993-94.



GRAPH NO. 2.1



The above Table No. 2.3 reveals that during the period under study total membership has increased from 10,146 to in 1983-84 to 18,426 in 1990-91 and further to 26,704 in 1993-94 showing growth in new members. Total amount of share capital mobilised has increased from Rs. 1.12 crores in 1983-84 to 1.97 crores in 1990-91 to Rs. 2.90 crores in 1993-94. Thus the amount of share capital contribution also has increased. As the area of operation has increased and new villages have been bought under its area the members rose and so too the share capital contribution.

#### 2.3.7 MEMBERSHIP :

In the year 1983-84 the total number of member were 10,146 and they had hold 11,400 shares and amount subscribed by them was Rs. 1,11,45,250. In the year 1993-94 the total number of members are 26,704 which has increased by 16,558 and the number of shares they have contributed are 28,131 which have increased by 16,731. The amount subscribed by them in this year is Rs. 28,99,50,000/- which has increased by 1,78,40,750 compared to 1983-84.

#### 2.3.8 OPERATIONAL AREA :

In the year 1983- 84 the operational area of the factory comprised of 98 villages from Shirol, Hatkanangale, Karveer and Kagal talukas of Kolhapur district (Maharashtra) and also Chikodi taluka from Belgaum district (Karnataka). In the year 1992-93, 2 more villages from Shirol taluka and 21 villages from Athani taluka have increased. The total villages comprised were 115. In the year 1993-94 they are the same with no change.

#### 2.3.9 AREA UNDER CANE :

In the year 1983-84 the total area under sugarcane was 16,990 hectares, out of that the cane cut area by the factory was 5,552 hectares. In the year 1993-94 the total area under cane was 24,500 hectares and the total cane cut area by the factory was 7,732 hectares. It means there is an increase of 7,510 hectares area under cane and there is also an increase of 2,180 hectares in cane cut area during the study period.

#### 2.3.10 AVERAGE PER HECTARE CANE PRODUCTION :

The average hectare cane production in the year 1983-84 was 64.24 tonnes. Then in the subsequent years there is a tremendous increasing trend in it. In the year 1989-90 the average hectare cane production was 73.32 tonnes in the year 1992-93, it was 76.10 tonnes but due to drought condition in the year 1993-94 the average hectare cane production has being reduced to 72.70 tonnes.

#### 2.3.11 PURCHASE PRICE OF CANE :

Reasonable price to the raw product is the most important criteria from the point of view of the producer member. i.e. why the factory has been giving reasonable at an increasing trend rate to the producer members. In the year 1983-84 factory has given the ex-field rate of sugarcane Rs. 222/- per tonne. Then in the year 1989-90, factory has given Rs. 425/- as final rate to the sugarcane and in the year 1993-94 factory has given Rs. 911/- which was highest rate in the history of the factory.

#### 2.3.12 EXPANSION OF CRUSHING CAPACITY :

The factory went into production in the year 1972 having crushing capacity of 1,250 M.T. and licence No. was 1/25/N-233/70-LC, dated 10 June, 1970.

First Expansion :

In the year 1978 the capacity was increased from 1,250 to 2,000 M.T. for attaining economical viability. An industrial licence No. IL 26(78), dated 31-5-1978 was obtained.

Second Expansion :

In the year 1987 the capacity was increased from 2,000 M.T. to 2,500 M.T. by an industrial licence No. 8(115)-LA 11/86, dated 7-5-1987.

Third Expansion :

The third expansion cum modernisation programme was undertaken in the year 1988. The capacity was increased from 2,500 M.T. to 5,000 M.T. Its licence No. was LI : 487 (88), dated 9th December, 1988. Thus within a short span of time the installed capacity of the sugar enterprise has increased. This indicates growth in cane cultivation in its area of operation also.

2.3.13 NO. OF WORKING DAYS :

In the season of 1983-84 the total working days were 149. In the year 1986-87 due to increase in the crushing capacity the number of working days were 186, which have

increased compared to last years. In the year 1989-90 due to increase in the crushing capacity from 2,500 M.T. to 5,000 M.T. the number of working days have increased to 229 days which are highest days in the study period. In the year 1993-94, due to technical faults and low production of sugarcane, the number of working days decreased that are to 123 days.

#### 2.3.14 TOTAL CANE CRUSHED IN THE SEASON :

In the year 1983-84 factory had crushed 3.56 lakhs M.T's of sugarcane. With the increase in crushing capacity there is also <sup>an</sup> increase in the sugarcane crushed. In the year 1991-92 factory has crushed 7.81 lakhs M.T. which is highest crushing in the study period. In the year 1993-94 due to technical faults in the machinery factory has crushed 5.62 lakhs M.T. sugarcane which is less compared to last years. Thus our study amply reveals that during the period under study as both installed capacity and canecrushed by the co-operative sugar factory has increased, it means that there has been more sugarcane availability with the factory. This is mainly due to new villages being included in its area of operation as well as increase in sugarcane production in its area of operation. This trend therefore will lead to growth in total sugar production of the factory and as sugar is the main product of the industry its sales price policy assumes real significance.

**2.3.15    TOTAL SUGAR PRODUCED :**

In the year 1983-84 the factory had produced 4,30,612 bags of sugar. With the expansion and modernisation the total sugar production has also increased. In the year 1991-92 factory had produced 9,66,285 bags which is highest production in the history of the factory. In the year 1993-94 factory had produced 6,80,800 bags which was less as compared to last year.

**2.3.16    RECOVERY :**

In the study period the percentage of recovery is on and above 11.34 to 12.35 in the year 1985-86 it is highest 12.35 and in the year 1990-91, it is low about 11.34. In the year 1993-94 it was 12.05.

**2.3.17    SALE OF SUGAR :**

In the year 1983-84 factory had sold 5,81,911 quintals of sugar which includes domestic levy, free sale and export levy. In the year 1989-90 factory had sold 5,97,726 quintals of sugar, from this year first time factory had sold export free sugar and stopped the sale of export levy. In the year 1993-94 factory had sold 9,69,253 quintals of sugar which is higher by 3,87,342 quintals as compared to the year 1983-84.

#### 2.3.18 INCOME FROM SALE OF SUGAR :

The average sale price of sugar in the year 1983-84 was Rs. 333.40 and the income received from total sale of sugar it was Rs. 19.40 lakhs. In the year 1989-90, the average sale price of sugar was Rs. 545.76 and the income received from total sale of sugar was Rs. 32.62 lakhs. In the year 1993-94 the average price per quintal of sugar was Rs. 823, but due to low production and low sale of sugar in this year factory had got Rs. 21.88 lakhs income which is less as compared to last year.

#### 2.3.19 STORAGE FACILITY :

For proper storage of sugar produced by the factory godowns are very necessary. In the year 1983-84 factory had 6 own godowns having capacity of storage 2.70 lakhs quintals and in the year 1993-94 total godowns owned by the factory was 8, having a storage capacity of 4.75 lakhs quintals. It means that factory had increased storage capacity to store the additional sugar produced by it in as the sugar produced by it rose.



**2.3.20 RECOVERY OF LOANS ADVANCED BY OTHER INSTITUTIONS :**

One of the main functions of a co-operative processing unit is to act as the best agent to recovery loans and advances given to farmers by other co-operative institutions namely co-operative banks. In this way, they act as the link between credit and marketing and ensure recycle of funds back into the co-operative banks at the village level, so that recovery is made and these credit societies become financially viable. Co-operative marketing and processing societies do act as good agent of recovery of co-operative credit society loans advanced to farmers. In this aspect, the part played by co-operative sugar factories has been good and they do serve as good agents to forge this link between credit and marketing.

On behalf of other institutions such as co-operative credit societies, co-operative banks and Nationalised banks, the factory has recovered loans of Rs. 328.18 lakhs in the year 1983-84. In the year 1990-91, factory has recovered Rs. 994.14 lakhs and in the year 1993-94 factory has recovered loans of Rs. 1,993.90 lakhs. It means that there is an increasing trend of recovery of loans advanced by other institutions by the factory and this is a good feature of the growth and development of this enterprise.

## 2.4 OTHER BY PRODUCTS OF THE FACTORY :

### 2.4.1 DISTILLERY PLANT :

Sugar processing units as they grow, have diversified their production and thus become the proper base for agro-based industrialisation. In this way, they have ensured that proper value added is made in the production process, and more rural employment is generation in addition to backward and forward linkages that are needed in the process of 'rural development'.

By and large, sugar production is the main production activity and other ancillary units like distillery plants, paper plants, energy generation are undertaken to made use of by-products of the main product namely sugar.

In our study, we find that the factory to make use of by-products mollases which is available from the process of manufacturing sugar, the management decided to undertake distillery project to manufacture industrial alcohol and accordingly obtained the necessary letters of registration from D.G.I.D., New Delhi to manufacture industrial alcohol of 90 lakhs litres per annum. This ambitious venture involving capital expenditure to the tune of Rs. 155 crores had been implemented with a very short span of about 1 year and commenced commercial production with effect from 4th September, 1983, with its full installed capitaty. In the

season of 1983-84 from 34,839.200 M.T. mollasses the project had produced 80,26,790.1 litres of industrial alcohol and had utilised 89.1% capacity in the year 1993-94 in 167 days, utilising the capacity of 62.1% it had produced 55,90,000 litres of industrial alcohol and the average recovery was 253.3 litres. On 31.3.1994 the project had got Rs. 301.63 lakhs as net profit.

#### 2.4.2 PAPER PLANT :

To save huge quantity of baggesse the factory decided to go for an implementation of 20 T.P.D. paper project based on baggesse and agriculture residues.

The project had been implemented and had gone into production in the year November, 1983. In the year 1983-84 the plant has produced 3,271 M.T. of saleable paper and its average price per tonne was Rs. 8,932 (excluding tax). In the same year due to non-availability of raw material (baggasse) water and power cut the total capacity has not utilised fully. In the year 1992-93 the plant has produced 2,910 tonnes of paper and its average price per tonne was 17,588 per quintals (excluding tax). Presently the paper plant is shut down.

#### 2.4.3 MOLLASSES :

In the year 1983-84 the total production of mollasses was 12,055 M.T. The percentage of mollasses to sugarcane was 3.38% per tonne. In the year 1989-90, totally 19,140 M.T. mollasses has produced and its percentage with sugarcane was 3.36% per tonne. In the year 1993-94, the production of mollasses was 21,408 M.T. and the percentage with sugarcane was 3.80% per tonne. Comparing to the year 1983-84 the production of mollasses had increased by 9,353 M.T. in the year 1993-94.

#### 2.4.4 BAGGASSE :

The percentage of baggasse with sugarcane was 31.11 in the year 1983-84 and in the year 1990-91, it was 31.09. In the year 1993-94 the percentage was 28.55 and it was 0.90% less than last year.

#### 2.5 AREA DEVELOPMENT SCHEMES :

For the development of factory area and growth of sugarcane production factory had conducted various schemes of development for the area. This is necessary as firstly -

The factory has to ensure that with increased installed capacity adequate sugarcane availability has to come so that the factory can run well in future. For this per acre productivity increase becomes necessary as this ensures increased sugar cane supply by the member farmers. Secondly, and most importantly the co-operative sugar enterprise is a factory of the farmers and all management decisions are taken by them only. In this respect then a co-operative enterprise do under take specific area development programmes mainly to the benefit of the farmers and the rural population in its area of operation.

The factory under study has mainly undertaken the following schemes.

#### SOIL TESTING :

Factory has provided a facility of soil testing by experts which guides the farmers about how to use fertilisers to their farms. In the year 1983-84 1,000 samples of soil were tested. In the year 1993-94, 4,745 samples of soil had been tested.

#### FERTILIZER SUPPLY :

After taking into consideration the scarcity of compost fertilizers the factory has been producing the

fertilisers by press mud, buggasses ash and spent wash from distillery department. In the year 1993-94 factory had sold 18,931 M.T. fertilizers at concessional rates. At present factory has been preparing the fertilizers with the help of Astro-Machine which has developed the quality type fertilizers. Factory has been providing chemical fertilizers like Sufla, Urea, Effco to the farmers at concessional rates.

#### SUPPLY OF QUALITATIVE SUGARCANE SEEDS :

With the help of central sugarcane centre and from other research centres factory has distributed high quality of seeds to the farmers which has helped to increase the production of sugarcane. In the year 1983-84 factory had distributed 22,89,940 sugarcane seeds to the farmers which were brought from Padegaon Research Centre and other research centres and the seeds which were prepared in the area of the factory. In the year 1994, factory had provided 1st grade seeds for 38 acres, IIInd grade seeds for 221 acres, and general seeds for 702 acres.

#### BOREWELLS :

For more water to the farms factory has proposed to dig 181 borewells and already factory has dug the same.

#### TRACTOR AND BULL-DOZER SUPPLY :

In the year 1983-84 factory had 1 tractor of 35 H.P. including necessary equipments and 1 bull-dozer of 90 H.P. and in the year 1991- 92 factory had 3 tractors and 3 bull-dozer which are made available by the factory to the farmers to develop their farms at concessional rates.

#### COMPETITION BETWEEN SUGARCANE PRODUCERS :

To grow more sugarcane factory has conducted competition among the farmers and those farmers get prizes who produces more sugarcane in per acre.

#### SUBSIDY FOR BACKWARD CLASS FARMERS :

Factory has been providing subsidy to the farmers where permanent water scheme is there. The scheme is particularly for backwards.

#### GOBAR GAS PLANTS :

With the help of "Village Cottage Industries Commission" factory has been encouraging to construct gobar gas plants of various capacities to the members. The subsidy ratio is based on the installed capacity. In the year

1983-84 factory had constructed 334 gohar gas plants and for that Rs. 3,64,425 had been given as subsidy to 197 plant holders.

#### TRANSPORT SCHEMES :

The factory designed a scheme of sugarcane transportation in the name of "Datta Vahatuk Yojana". In order to provide subsidiary occupation to the sugarcane cultivator members for which the factory has advanced loans (long-term) to the member cultivators to purchase trucks, tractors, trailers to transport sugarcane from the village farms to the factory site, as well as produced sugar to the markets.

#### DIESEL AND PETROL PUMP :

For continuous supply of sugarcane without any difficulty in respect of transportation of sugarcane a diesel and petrol pump has been installed at factory sight. Which also provides fuel to the private vehicles owned by the members of the factory.

### 2.6 WORKERS WELFARE FACILITIES :

#### 1) Safety equipment :

The management has provided necessary safety equipments to the workers like goggles, hand-gloves, gum-



boots, etc. All moving parts of each engine is properly furnished with the fire precaution equipment. The management has kept sand buckets and fire extinguishers in every dangerous place. The management provides 2 dresses for each worker every year.

2) Housing facilities :

The factory has provided housing facilities to the workers as well as to the officers at reasonable rates.

3) Recreation facilities :

The management has provided recreation facilities to the workers and staff such as sports, games, reading room, library, etc.

4) Medical facilities :

There is one dispensary in the factory premises. including x-ray machine, cardiogram, ultra sonography machine, operation theatre, etc. Many Medical Officers from Miraj have weekly visits to the dispensary. As a part of social welfare, family planning operations including laproscopy have been held here. Necessary medicines are

stored in the dispensary, besides the first-aid box has provided to every department of the factory. Factory has also purchased two ambulances. In the year 1993-94 there is also an expansion programme of dispensary.

5) Co-operative Credit Society :

The factory has also established a workers co-operative credit society in the name of "Shree Datta Shetkari Employer's Co-operative Society Ltd." This society is functioning very smoothly by rendering short-term loans to its members. At this position the society is able to sanction-up to Rs. 50,000/- loans to its members as per their percentage of wages.

6) Shramik Bhavan :

All the workers have collectively build-up Shramik Bhavan in the year 1992-93 by their own contributions. It helps the workers to maintain co-relationship between them.

7) Industrial Training Centre :

From August, 1994 factory has started "Industrial Training Centre" which includes six professions. The capital investment for civil and machinery instrument were

about Rs. 27 lakhs. Nearly 100 trainees are taking training there. Besides this, from the year 1993-94, a separate women's industrial training centre has started which helped the women for self-employment opportunities.

8) Shree Datta Bhandar :

On the factory sight, a separate consumer co-operative society in the name of "Shree Datta Bhandar" has established which has included a departmental stores. The main aim of the departmental store is to provide fundamental consumable items such as cloths, readymade garments, foodgrains, utensils, electrical equipments and other essential commodities at reasonable prices to civilians residing in the vicinity of this co-operative industrial complex.

9) Bonus :

The management has been giving bonus to all the workers every year. In the year 1993-94 management has given 20% bonus and 10% ex gracia to the workers which has amounting to Rs. 55.46 lakhs as bonus and Rs. 2.83 lakhs as ex-gracia. So that bonus given to the workers in the year 1993-94 is amounting to Rs. 58.29 lakhs.

10) Other facilities :

The management has been providing banking facilities, post-office, rest-room for workers canteen, lighting ventilation, drinking water, latrines and urinals, fire brigade, cycle stand etc. in the factory premises.

2.7 ROSE GARDEN AND HORTICULTURE :

Apart from industrial growth of the factory, for balancing environment it has established government approved nursery to develop horticulture. In the year 1983-84 factory has cultivated different types of commercial rose plants in 4½ acres. In the exhibition arranged by Inerwheel Club of Miraj. Factory's rose "Sharad" had got an award of "Prince of the show" and for the "Inerwheel Spark" rose flower and "just joy" rose flower had got first prizes. Rose society of Sangli and Ichalkaranji had arranged an exhibition of rose flowers in which factory had got an award. In the same season factory had cultivated 5,500 coconut trees and other trees such as mango, pomegranate jack fruit, lime, sapodilla, black berry, orange, mosambi and factory has been selling these plants at concessional rate.

In the year 1993-94 factory has sold totally 56,759 plants at concessional rates. From the year 1982 according to government's rule factory has cultivated 14,065 trees in 71.10 acres, which includes 5,700 coconut trees and 7,687 forest trees.

## 2.8 AWARDS AND PRIZES :

National Federation of Co-operative Sugar Factories, New Delhi has been issuing a technical efficiency award. For those factories which are using their optimum crushing capacity, best use of wastages and boiling house extraction etc. It is proud to state here that the factory had got first prize of technical efficiency award in 1982-83 to 1984-85. For three seasons, and also for the three seasons of 1985-86 to 1987-88. From the year 1988-89, National Federation had decided to ignore those factories which has got the awards continuously for two years. But it is noteworthy to state that even this year also the factory got first number prize at National level, and federation has given "Special Award" to the factory as a special case. The factory has been achieving a award of efficiency since the last seven years.

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