

Co-operative Sugar Factories in Maharashtra: The Growth Centers for Rural Development

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Abstract:

The Co-operative Sugar Factories were established as the growth centers for rural development. With the establishment of the Tatyasaheb Kore Warana Co-operative Sugar Factory, rural development, growth of irrigation mainly through schemes sponsored by the factory, led to agricultural development and growth of sugarcane cultivation. In addition, the Warana Sugar Factory, also undertook medical facilities, educational facilities etc. as a part of area development. Diversification of the sugar co-operative factory led to growth of ancillary units, like paper plant, distillery unit etc. The success of sugar co-operative led to growth of their agro-based processing units like dairy co-operative, co-operative fruit processing units and such agro-based industrialization helped in the development of agriculture. Such a process of rural transformation in Kolhapur district where the Warana Co-operative Sugar Factory has indeed become the Growth Centre for rural development.

Keywords: Rural Development, Growth Centers, Supplementary income, Co-operative Commonwealth

Introduction:

Sugar industry is an important organized industry in Maharashtra, dependent in a major way on unorganized sector. Since the industry has been organized on the principles of co-operation, its responsibility is to transform the rural life. The socio-economic life of agriculturists has undergone a complete change since the installation of sugar co-operatives in rural areas. Pandit Jawaharlal Nehru, Dr. D.R.Gadgil, Vaikunthbhai Mehta, Yashvantrao Chavan, Vitthalrao Vikhe Patil, Dr. Vasantdada Patil were the pioneers in bringing the ideology of Agro Industrial Co-operative Commonwealth into practice. The rural employment – both in agriculture and in industrial sector, has risen phenomenally since the inception of sugar factories in Maharashtra. Maharashtra state has 173 co-operative and 23 private sugar factories, but out of total co-operative factories only 141 are working in year 2007. The co-operative sugar industry having the objective of welfare of the people required be organizing and operating with highest efficiency. Among the Indian states, Maharashtra tops in sugar production as well as recovery of sugar. Due to the weight losing nature of sugar cane, all sugar factories are established in sugarcane area. These factories play major role in the socio-economic development of rural areas in Maharashtra.

1. Objectives and Research Methodology

The main intension of this research paper is to study the progress of sugar industry in Maharashtra and its role in rural development. Co-operative sugar industry in Maharashtra is playing a vital role in rural transformation. Tatyasaheb Kore Warana Co-operative Sugar Factory Ltd. Warananagar, is selected from Taluka Panhala, Dist-Kolhapur. Because the factory has made consistent efforts to develop the infrastructure of agriculture and thereby to achieve rural transformation. This sugar factory was established in 1956; it started functioning from 1959 onwards. The villages of the region have experienced considerable changes in general land use, cropping pattern, farm technology and levels of productivity. 15% samples of villages are selected out of total villages in operational area of the sugar factory. Sugarcane is supplied to sugar factory from operational area, villages of out of operational area in Maharashtra and villages our of Maharashtra. But villages of operational area only are considered for study, because the major impact of development activities is on the operational area. There are 80 villages in operational area of Warana sugar factory. 12 villages, out of 80 are selected for study. For the selection of 15% villages the lottery method is used.

This research is based on the primary as well as secondary data. Primary data has been collected from the shareholders of the sugar factory. Secondary data which is furnished from the Economic Survey of Maharashtra – 2012, some reports published by the Maharashtra State Co-Operative Sugar Factories Federation Ltd., National Federation of Cooperative Sugar Factories Limited and various websites related to sugar industries.

Concept of Rural Development -

Conceptually, rural development is taken as the development of rural areas. It may be described as the urban areas. The non – urbanized area however, is not a separate entity but is a part of far flagging spatial and economic linkages. Rural development, therefore, takes into account the forward and backward linkages both, the rural and urban areas, its main trust is on development on rural man as well as member of his village community and the community as a whole. These people are to be encouraged to achieve development by their own efforts and through adopting a co-operative way of life for promoting group interest and interest of community as a whole. Thus the development of solidarity and self – reliance in the community are two basic objectives of rural development.

Rural Development is an improvement in the economic and social well-being of a specific group of people i.e. the rural poor and agriculture. Any rational scheme of economic development aiming at improving the living standards of people, agriculture development should be the starting point. The concept of Rural Development has become a very popular term among planners and policy makers. Now the question is who does the rural development? The answer to this question can be given in the following quotation expressed by late Jawaharlal Nehru, “The Villagers Are being deprived of their bright persons who go to the cities, leaving the villages rather weak and with any educated or trained persons to help them. We want to urbanize the village, not the away from the villages to towns that are growing up, but to bring urban standards to the village and keep bright persona in the village itself’ ?”. Considering this aspect, it is clear that the village people and their leader can only bring rural development. Another question is that of the meaning of rural development? The rural development does not refer merely to a group of building and surrounding lands, but it includes something more. The intention of the rural

development which was started in our country in 1952, was to give the “Right to live”, to rural people and to develop a feeling of “Self- reliance”, to identify their own problem. The Balwantraji Mehta Committee recommended Panchayati Raj; and started grass-root planning or the planning from ‘below’. And at least few sugar factories have brought this into practice.

Role of Warana sugar Factory in Rural Development –

Area development, in the sense of sustained improvement in the level of the people in rural areas, is largely dependent on the betterment of the material conditions of those involved in agricultural activities. The objectives of such a development are mainly two fold.

1. To Increase Productivity and profitability of agriculture, and
2. To reduce inequalities and exploitative relationship in the agriculture sector by helping the small and weak. These were the objectives, which inspires the establishment of co-operative sugar factories in Maharashtra. (Gadgil D.R 1952:21). The successful establishment of a co-operative sugar factory in 1959 completely revolutionized the life of Warana. Today it is the backbone of this complex. Warana vally before the establishment of the factory in 1955 was a barren hilly track notorious for the activities of dacoits and cruel criminals. Due to the poor soil, traditional methods of cultivation, lack of irrigation facilities and low productivity of the fares. The peasant in the valley had a meager income. On the vagaries of the monsoon and violent fluctuations in the price of agriculture product, the farmers had a undergo untold misery. In 1951, the farmers in this region had traumatic situation of a severe depression, which deflated the prices of sugarcane to such extend that poor farmers could not recover even the cost of making jaggery. Out sheer frustration and utter disgust the farmer had to destroy their crop. To overcome these hardship and miseries, the local leaders of the region with their ardent quest for a solution decided to bring together all the farmers and establish a modern co-operative sugar factory. However, to convince the poor, conservative and orthodox minded farmers in the region; to pool their resources for mutual help and prosperity was an uphill task. With great efforts the local leaders were convince that once three was a co-operative sugar factory in the area, it would become a focal point of further growth. Convincing the farmer of the viability of the industrial venture was difficult proposition. The credit for inspiring the traditional farmers and encouraging them to come forward and join hands goes to Tatyasaheb Kore, a progressive farmer of this region whose foresight, vision, ceaseless efforts and organizational ability of rare order have always been sources of inspiration for all. Shri. Tatyasaheb Kore with his dedicated and devoted social works paid a visit to almost all the farmers in the sugar factory which would be instrumental in bringing about a complete socio- economic uplift.

I) Agricultural Development:

General economic development will require rapid agricultural development either to proceed to go hand in hand with it. Overall development of agricultural, therefore, has a vital significance in our economy. Any Appreciable progress in the agricultural production essentially depends on the quantum of availability of irrigation facilities. Because water is the main input and without it all other input are ineffective or much less effective. Recognizing the crucial role played by this sector in enabling the widest dispersal of economic benefit, the Tenth Plan has emphasized that agricultural development which is central to the rapid economic development of the country.

The agricultural department is encouraging the farmers to adopt new irrigation systems like sprinkler and drip irrigation system etc. They are sold to the farmers at high-subsidized rates. The required fertilizers, insecticides and good quality seeds are supplies to the farmers through the departmental units existing in the village. A full-fledged nursery is supplying good quality saplings to the farmers. The department is trying hard to keep the environment green by putting the plantations along the roadside and at suitable places. Full-fledged efforts are going on to produce the bio-fertilizer in which the press-mud from sugar factory and spend wash from distillery are used. This kind of fertilizer has great export potential.

A) Water supply

Warana River is the life of land. Though even three weirs are constructed across this river, they are not sufficient to take care of hungry of hungry land. Farmers suffer a scarcity of water in the summer since the River Warana and the wells in her region go dry in the first fortnight of February and as there is no water storage facility, the farmers have to depend on the vagaries of the monsoons and to bring more and more land under assured water supply, the factory has done a yeoman s servers to the cause of the farmers for efficient operation of factory good quality of sugarcane is essential .For that adequate irrigation facilities to enable the producer –members to increase their cane production have been given top priority by the factory it is with this objective in mind that the factory oven the years has sponsored and undertaken several lift irrigation schemes and enabled the members to enhance their cane production. About 65 lift irrigation schemes are functioning. Each lift irrigation scheme is quenching the thirst of around 120 acres of land. Along with this; three big lift irrigation schemes are inundating around 4600 acres of land. Due to the efficient working of these lift irrigation schemes, the sugar cane production has gone up by 2 lakh tonnes

B) Supply of fertilizers

Warana sugar factory has more than 35 centres in its area of operation through which the required fertilizer are made available to the cultivators. Most of farmers were making use of nitrogenous fertilizer but the factory has provided them balanced fertilizer and the bill of it is recovered from the cane bill. Factory provided the various types of fertilizer on the basis of the subsidy to the shareholders for fertilizer “Warana Bio-earth” namely, compost fertilizer is provided by the factory to the Cultivators. Factory gives subsidy in this Bio-earth in this fertilizer there is a mixing of potash, Sulphur and Calcium which is very useful to the crop in the years 2001-02 factory provided 4916 metric tonnes and in the year 2002-03 it provided 5031 metric tonnes if Bio-earth.

C) Supply of Pesticides and insecticides

Pesticides and insecticides are also essential along with use of water and fertilizer for higher yields. If a farm remains free of pests and diseases the quantity and of a crop is bound to be high The factory also provides insecticides and pesticides to the farmers in time to enable them to keep the crops healthy and disease free.

The use of pesticides and insecticides after planting or sowing is necessary for the healthy growth of crops. After the establishment of the sugar factory the proportion of the users of pesticides and insecticides has

increased among all the five categories of farmers. Factory gives the subsidy on large scale for the pesticides and insecticides.

D) Biogas Plants Subsidy:

Warana sugar Factory installed more than 250 biogas units so far in its area of operation. It also gives a subsidy of Rs2000 to4000 depending upon the size and capacity of the unit. Factory is playing a crucial role in harnessing the fuel value of cattle waste and agricultural residues in its command area and promoting social and environmental benefits. Social and environmental benefits are also derived from biogas plants. The small and medium biogas units reduce the loss of forest wealth misuse of agriculture and cattle wastes and augments the availability of energy and fertilizers which are important for maintaining and increasing productivity on a sustained basis. Factory installed a unique community biogas unit perhaps the first of its kind in Maharashtra at Ambap in its area of operation. The factory brought forty families of the weaker sections that had no finance, space and sufficient number of cattle together and community biogas plant was erected for them. It may be noted here that the Government of India has sanctioned a cent percent grant of Rs. 323000 for this plant.

E) Cane Development and Research:

Factory has a separate cane research centre in agricultural section Factory has been introducing the use of seeds of sugarcane. The factory is having its own farm in which it demonstrates the use of seeds, fertilizers and manures. The factory gives the subsidy to the shareholders on the price of new variety of the sugarcane. Pilot scheme was undertaken for the introduction of improved seeds of sugarcane and the factory has appointed special experts.

II) Area Development:

Improved rural infrastructure is necessary for accelerating rural development. Without proper infrastructure, physical and social fruits of development do not reach the target groups, the weaker and the deprived

Collection and Utilization of Area Development Fund:

the factory has been instrumental in starting and aiding several services and schemes, which have to reach all sections of the local rural population, especially, the small farmers and the weaker section of the rural society.

Sugar factory had given maximum financial assistance to the ‘Mahatma Gandhi Medical Trust’. Rural population should not be deprived of medical facilities. The medical aid should be available nearby during the emergencies for the sugar factory workers and members of the factory. The others people living the area of operation also take benefits. Factory provided latest facilities in 1992. There is a 200-bedded hospital, which is equipped with modern medical machinery along with expert doctors

The bulk of the financial assistance is given to the ‘Warana Vibhag Shikshan Mandal’ to promote educational and mould the coming generation into ideal citizens. In Warana Complex the Shikshan Mandal developed the education right from Montessori to the Degree level education. Factory financially assists many others Montessori’s and Secondary schools in the area of operation. The factory started

Engineering College in its Complex. For the Engineering College fee and hostel fee, the factory shares very large amount. So many poor students take the benefits of professional education.

1. Grant-in-aid of Rs. 40,000 to Rs. 2,50,000 is given for the libraries in rural areas. The factory tried to improve the habit of reading among the rural people.
2. Grant-in-aid of Rs.10,000 to 1,40,000 is given to villages for the construction of Gymnasium and Sports Clubs. A factory encourages the rural youth for the sports and maintains the physical fitness. Factory arranges the various competitions of sports and provides all types of facilities to sportsman.
3. The rural people being more orthodox and conservative spend lavishly on marriage functions others ceremonies. To relieve the weaker sections of the society from the clutches of unscrupulous moneylenders and to curtail such systems, the organizes community marriages and also encourages inter-cast marriages. The factory gives gifts of household goods to the newly wedded couples.
4. To control the environmental pollution the financial assistance for social forestry and also provides various types of saplings.
5. The factory arranges various training programmes for the farmers with the help of agricultural institutions. It spends 75 lakh rupees for it every year.
6. Grant-in-aid of Rs.25,000 is given for the non-grant high school which are working in the rural areas. They are working to provide the educational facilities to the rural poor.
7. To maintain the national integrity the factory has given Rs. 7,92,000 as financial assistance to Jotiba Temple Area Development plan.
8. Thus, the factory plays a very crucial role in the development of the area of operation by giving financial assistance to several schemes, activities and general community services which have a direct bearing on the welfare of the people at large.

III) Employment Generation:

A major development issue in India is to eliminate unemployment and provide gainful employment to millions of people without work. Unemployment generates serious economic, social and political consequences and prolonged situation of mass unemployment results in mass poverty. In the year 2003-04 total laborers working in the sugar factory in various departments were 1105. With the help of Area Development Programme the sugar factory has undertaken several schemes and projects to create the infrastructure and socio-economic overhead, i.e. construction of road, bridges, weirs, buildings and other various schemes. This is a vital role played by the sugar factory in the employment generation.

IV) Women Empowerment:

Women are not neglected. Housewives are involved in the overall development of the complex. This organization was started in 1974. It provides women part-time employment at home and thus enables them to supplement their family income. "Lijjat Papad Mahila Udyog Ltd" was started where workers' wives were given an opportunity to prepare the Lijjat Papad during their leisure time. This not only promoted the family income, but also, kept the women busy and they identified their roll in the women get between Rs. 50 to Rs. 200 per day as per their efficiency.

On the similar line "Warana Bhagini Mandal" is also in action from 1975 where pickles, masalas and other edible items are prepared and sold. They also take up the job of stitching the school uniforms

for the students. The Bhagini Mandal at dairy is involved in the production of plastic containers required for all the dairy products. It also arranges training courses in tailoring for housewives.

V) Shree Warana Bal Vadya- Vrunda:

Children’s orchestra was formed in 1970. The students of primary school and high school are taught how to play different musical instruments. A magnificent and amazing performance by school children in the orchestra can make anybody spell-bound. These children can fill the life the life into the dead musical instruments. The feathery touch of the children makes the instruments sing. It is really an experience to sit and listen to them. They make anyone to forget his own existence. They have showed their performance in the presence of Hon’ble Presidents, Prime Ministers and the Ambassadors of various countries. Various countries like Sibenik, Yugoslavia, Mauritius, South Africa invited the Warana children-orchestra and its has spread the fragrance of Warana throughout the world. Sugar factory finances the purchase of all musical instruments sand also provides al separate building for it.

VI) Warana Wireled Village Project:

Due to this unique setup Warana Co-operative Complex is attracting various project sponsored by Central and State Government. For example, Warana Wireled Village Project is a project of Rs. 2.5 crores in the field of information technology. This pilot project is the first of its kind in Asia. This project connects 70 villages with 150 computer networking nodes and also provides the Internet facilities to the rural community. Just by clicking the mouse of a computer, the project fulfills all the needs such as revenue records, health cards, credit cards agricultural goods market prices of national as well as international markets. Advanced agricultural technology information is available to the farmers. The project undertaken with the support of Central and State Government is implemented with the help of National informatics Centre, C-DAC and Shree Warana Vibhag Shikshan Mandal.

Agricultural benefit obtained by farmers:

The Warana co-operative sugar factory has supplied various facilities for agricultural development of the farmers. The factory provided cane seeds, subsidy for modern equipments, chemical fertilizers, green manures, subsidy for irrigation facilities and facility for soil testing etc. Here we present the number of respondents according to the facilities obtained by them through the sugar factory in table no 1.

Table No. 1

Agricultural benefits Obtained by Farmers

Sr. No	Type of Benefit	No. of Respondents
1	Cane Seed	94(78.33)
2	Modern Equipments	27 (22.50)
3	Subsidy for modern equipments	07 (5.83)
4	Chemical Fertilizers	118 (98.33)
5	Green Manures	118 (98.3)
6	Pesticides/Insecticides	117(97.50)
7	Facility for irrigation scheme	92(76.66)

8	Soil testing	117(97.33)
9	Benefits of new schemes	83(69.16)
Total Farmers		120

Source: Field Work

Figures in brackets indicate percentage of beneficiaries to the total farmers.

Table no. 1 reveals the information about the different types of benefits obtained by the respondents for their agricultural development.

Socio- Economic Benefits Obtained by the villages:

If we consider present situation of the respondents We observe that due to the sugar factory’s most of the farmers have been benefitted at different levels. The nature of socio-economic benefits obtained by farmers through sugar factory is shown in the table no2.

Table No.2

Socio-Economic Benefits Obtained by villages

Sr. No	Type of Benefit	No. of Beneficial Villages
1	Educational Facilities	11(91.66)
2	Medical Facilities	10(83.66)
3	Dairy Development Scheme	12(100)
4	Financial institution	11(91.66)
5	Consumer Stores	12(100)
6	Sport Facility	09(75)
7	Library Facility	08(66.66)
8	Housing for BPL People	02(16.66)
9	Construction of Link Road	12(100)
10	Subsidiary occupation	08(66.66)
11	Cultural Activities	07(58.33)
12	Collective Marriages	05(41.66)
13	Drinking Water Facility	01(8.33)
14	Information Technology	12(100)
15	Pilot Scheme	12(100)
16	Employment for Women	08(66.66)
17	Employment for Youth	11(91.66)

Source: Field Work.

Figures in brackets indicate percentage to the total surveyed villages.

Table no 2 represents the number of villages in Warana co-operative Sugar factory’s operational area and benefitted by the various socio- economic facilities. In Warana factory’s area most of villages which are more than 66.66% have obtained educational facilities, medical facilities, dairy development scheme facilities, financial help, consumer stores facilities and pilot schemes

Opinions of the Respondents:

Here we have collected the information about respondents` views in respect of overall opinion about the sugar factory and Area Development Programme. The opinions expressed by the farmers in respect of this are shown in the Table No.8

Table No.3

Overall Opinion of the Respondents

Sr.No.	Particulars	No. of Respondents N=120
1	Increase in various occupations	78(65)
2	Increase in Standard of Living	110(91.66)
3	Increase in Vehicles	94(78.33)
4	Increase in Accidents	17(14.16)
5	Increase in Political Issues	89(74.16)
6	Increase in Basic infrastructure & facilities	107(89.16)
7	Improvement in Transport & Communication	120(100)
8	Availability of medical aid	95(79.16)
9	Availability of agricultural inputs in time	113(94.16)
10	Increase in Trade & Commerce	89(74.16)

Source: Field Work

*Figures in the bracket indicate percentage to the total respondents

**N=Total respondents

Table no. 3 shows 91.66% of the farmers agree that their standard of living has increased due to the development of Sugar factory 78.33% farmers have expressed their views in respect of the increase in vehicles due to the co-operation of the sugar factory. One important remark we find is the increase in political issues. Hence, we can say that there are some positive and some negative aspects of the development of sugar factory.

Conclusions

The major findings of the study are as follows:-

1. The co-operative sugar factory has increased the standard of living of the rural masses with the help of Area Development Programme.
2. Sugarcane is the cash crop. The area under Sugarcane of Warana sugar Factory`s operational area has increased from 6.85% to 55.37%.
3. The area under other crops like Jawer, Bajra, Wheat, Groundnut and cotton has decreased even after the increase in the irrigation facilities. This thing indicates that the establishment of the sugar factory the tendency of cultivating the cash crop of sugarcane has increased among the farmers.

4. After the establishment of the factory, it started the cane development programme. Factory has provided irrigation facilities, chemical fertilizers, improved seeds, pesticides and insecticides, modern equipments etc. to the farmers, which has changed the cropping pattern.
5. The cultivation of sugarcane has increased the productivity of agriculture, which has added to farmer's income from land.
6. Due to the cane development programme of the sugar factory the area under sugarcane has increased at the place of area under foodgrain. It resulted in decrease in foodgrain production. Today the area of Warana sugar factory is agriculturally rich, but it is not self-sufficient in foodgrain production. Demand and supply of foodgrain is unequal. There is food shortage experienced in the region. It has resulted into the imbalance of the pattern of the region.
7. It is found that due to the increase in sugar factories the area under sugarcane increased. But sugarcane cultivation is unplanned. Individual cultivators took decisions. This has brought frequent fluctuations in the production of sugarcane in the region. Therefore, sometimes surplus sugarcane is produced and sometimes there is shortage of sugarcane.
8. Warana sugar factory has developed and maintained network of roads in the operational area. During last 10 years Warana sugar factory has spent Rs. 31428226.15 on road development scheme.
9. Warana sugar factory has started a milk dairy, which collects milk from villages, and milk products are sold in cities. This has provided supplementary income to the farmers particularly to marginal and small farmers.
10. The large-scale migration concentration of population in the cities often leads to congestion, growth of slums and consequent problems of disease and crime. The establishment of sugar factory in the rural areas on the other hand provides income and employment opportunities without uprooting people from their social milieu. They are able to improve their standards of living without alienating themselves from their cultural and community life.

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