

Role of Co-operative Dairy Industries In Rural Development And Poverty Mitigation

Nathu Ram

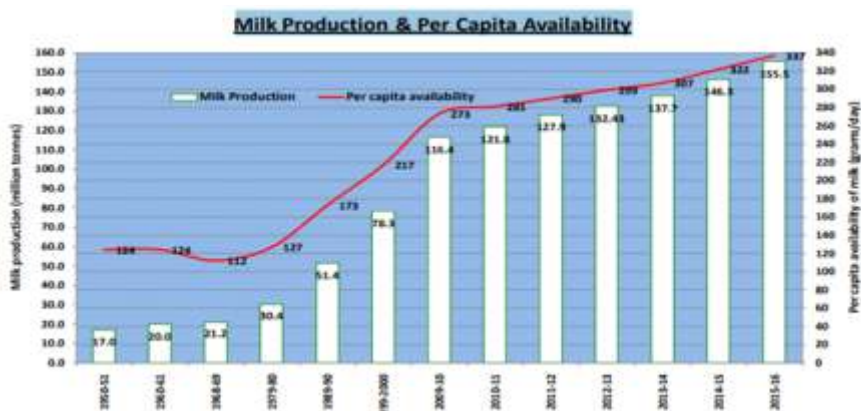
Abstract

Operation Flood and dairy co-operatives emerged in India as the largest rural employment scheme, enabling the modernization of the dairy sector to a level from where it can take off to meet not only the country's demand for milk and milk products but can also exploit global market opportunities. This study reviews the existing status of milk marketing and dairy co-operatives in India and provides recommendations to meet future challenges. The results of the study indicate that 80 percent of the milk produced by the rural producer is handled by an unorganized sector and the remaining 20 percent is handled by an organized sector. It is found that the dairy co-operatives play a vital role in alleviating rural poverty by augmenting rural milk production and marketing. Involvement of intermediaries; lack of bargaining power by the producers; and lack of infrastructure facilities for collection, storage, transportation, and processing are the major constraints which affect the prices received by producers in milk marketing. Milk quality, product development, infrastructure support development, and global marketing are found to be future challenges of India's milk marketing.

Introduction:-

The Dairy sector in India has grown substantially over the years. As a result of prudent policy intervention, India ranks first among the world's milk producing nations, achieving an annual output of 155.49 million tons during the year 2015-16 as compared to 146.31 million tons during 2014-15 recording a growth rate of 6.27 %. FAO reported 1.8% increase in world milk production from 789 million tons in 2014 to 803 million tones in 2015. This represents a sustained growth in the availability of milk and milk products for growing population.

Dairying has become an important secondary source of income for millions of rural families and has assumed the most important role in providing employment and income generating opportunities particularly for women and marginal farmers. The per capita availability of milk has reached a level of 337 grams per day during the year 2015-16, which is more than the world average of 299 grams per day in 2015. Most of the milk in the Country is produced by small, marginal farmers and landless laborers. 198 dairy cooperative milk unions have covered about 15.83 million farmers under the ambit of 1,70,992 village level dairy corporative societies up to March 2016. The Cooperative Milk Unions have procured an average of 42.55 million kgs per day of milk during the year 2015-16 as compared to 38 million kgs per day in the previous year recording a growth of 12%. The sale of liquid milk by the Cooperative Dairies has reached 32 million liters per day during the year 2015-16 as compared to 31.24 million liters per day registering a growth of 2.7% over the previous year.



Milk production and per capita availability of milk in India

Year	Production (Million tonnes)	Per Capita Availability (gms/day)
1950-51	17.0	130
1960-61	20.0	126
1968-69	21.2	112
1973-74	23.2	110
1980-81	31.6	128
1990-91	53.9	176
1991-92	55.7	178
1992-93	58.0	182
1993-94	60.6	186
1994-95	63.8	192
1995-96	66.2	195
1996-97	69.1	200
1997-98	72.1	205
1998-99	75.4	210
1999-2K	78.3	214
2000-01	80.6	217
2001-02	84.4	222
2002-03	86.2	224
2003-04	88.1	225
2004-05	92.5	233
2005-06	97.1	241
2006-07	102.6	251
2007-08	107.9	260
2008-09	112.2	266
2009-10	116.4	273
2010-11	121.8	281
2011-12	127.9	290
2012-13	132.4	299
2013-14	137.7	307
2014-15	146.3	322
2015-16	155.5	337

Source: Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture & Farmers' welfare, GoI

Operation Flood

Government is actively supporting the dairy sector by implementing various schemes. It all started with the White Revolution under the title Operation Flood (OF) Programme launched in 1970. By promoting Anand Pattern of dairy cooperatives, Of envisaged sustained increase in resource productivity culminating in improved quality of life of milk producers and assured supply of quality of milk and other dairy products to consumers at reasonable price in a free market environment. Following the cooperative path, market oriented milk production and modernization of dairying, milk production, processing and marketing progressed significantly. The bedrock of Operation Flood has been village milk producers' cooperatives, which procure milk and provide inputs and services making modern management and technology available to members. The objectives of Operation Flood included:

Increased milk production ("a flood of milk")

Augmenting rural income.

Ensuring fair prices for consumers

In of areas, the country has more than 1 lakh organized primary village dairy cooperatives at present with an aggregate membership of 1.1 cr. producers. These primaries are federated into 170 districtcooperative milk unions and further to state cooperative dairy federations. The dairy co-operative network is estimated to have collected close to 229 lakh kilograms per day in 2007-08 resulting in the payment of an aggregate amount exceeding Rs.7000 croresto the milk producers during the year. It is observed that 14 major dairying States viz. Uttar Pradesh, Punjab, Andhra Pradesh, Gujarat, Maharashtra, Madhya Pradesh, Karnataka, Haryana, Tamil Nadu, West Bengal, Bihar, Kerala and Orissa accounts for 92% of India's milk production, 93% of the rural marketable surplus (i.e. the milk that flows from rural to urban areas, estimated by deducting rural consumption from rural milk production).

Village Dairy Cooperative Societies (DCSs)

The basic unit in the Anand Pattern is the milk producers' cooperative society, voluntary association of milk producers in a village who wish to market their milk collectively. Every milk producer who has at least one mulch animal that is owned canbecome a member of the cooperative by paying a nominal entrance fee and purchasing atleast one share. At a general meeting of all the members, the representatives are elected to form a managing committee, which runs the day-today affairs of the cooperative society by setting the policies and appointing necessary staff. Out of nine managing committeemembers, one member is elected as chairperson. Every morning and evening the society buys the surplus milk from its producer-members. The producer is paid for milk usually within 12 hours (for morning milk, in the same evening and for evening milk, the next morning). The payment is made on the basis of fat and SNF (solids-not-fat) content of the milk supplied by the individual producer. The district milk union organizes the transport of collected milk twice daily (whenever the dairysociety has no bulk coolers) or according to the schedule based on the quantity of the milk collected and the capacity of bulk coolers from all its affiliated member cooperatives. The producers in this system are not only ensured regular and remunerative paymentfor their milk, but also have access to the milk production enhancement inputs, supportservices, to further improve their productivity and income. The micro-level support servicessuch as veterinary first aid are organized by village societies. One of the staff members of the societies is trained to carry out these functions. Societies also market the liquid milk locally atthe village level. In addition, supply of balanced cattle feed and fodder seeds and milk products are also channeled through societies. In addition to regular

payment and support services, members also receive the price difference, dividend and bonus deriving from the net profit of the society's business as per the provisions of the society's by-laws

The Impact On Smallholders And Rural Development

The sustenance of rural livelihoods is currently at stake than ever before, in the face of economic liberalization. Livelihoods options are shrinking in rural areas in general and more so in eco-fragile regions, such as drought, desert prone, hilly areas and other under developed /backward districts. Rapidly growing markets for livestock products in general, and dairy products in particular (owing to rise in per capita incomes) are opening new avenues for enhancing rural incomes. Dairy farming plays significant role in sustaining the rural livelihoods, although the phenomenon of farmer's suicides, migration, and malnutrition is widely prevalent in rural India. However, some of the dairy based drought prone districts made rapid strides in ameliorating poverty by substantially contributing to the District/State agriculture economy. Contribution of agriculture and allied sectors to the national GDP has declined during the past few decades, the contribution of the livestock sector has increased from less than 5 percent in the early 1980s to over 6 percent in the late 1990s. The Operation Flood programme, which was launched during 1970, organizing dairy farmers' cooperatives in rural areas and linking them with urban consumers created a strong network for procurement, processing, and distribution of milk over a lakh villages in rural India

Employment

Livestock sector provides employment to 18 million people and nearly 70 per cent of them are women. Further, dairy sector is the major source of income for an estimated 27.6 million people. Among these, 65 to 70 per cent are small, marginal farmers and land-less labor. The dairy sector supports around 10 million members / farmers through one lakh cooperative societies existing in the country. Apart from employment generated by rearing of animals, the procurement of milk and its processing also provides substantial employment. For example in Punjab, MILKFED, with its network of over 5,000 village Milk Producers' Cooperative Societies, supports over 3 lakh Milk Producers. Further, MILKFED and its units have a work force of about 5,000 employees and gives employment to another 10,000 workers who are engaged in milk procurement and technical input supply, etc. Similar number of workforce is employed in almost all the milk federations. Further, under SGSY (Swarnajayanti Gram Swarajgar Yojana), the only self-employment programme for rural areas, about 35 per cent of swarajgaris opted for dairy farming as income generating activity. The incremental employment generated was 11 man-days per month and the incremental net income generated was Rs. 865 per month per person (Nationwide Study on SGSY, NIRD, 2005). Recognizing the importance of dairy farming in its substantial contribution to the agriculture economy and to the livelihoods of resource poor farmers/rural population, high priority is attached in several locations strengthening the milk marketing infrastructure, veterinary services for breed improvement and health care, extension support for capacity

Social Impact

Since membership is open to all, lack of discrimination, in caste, creed, gender and financial status has succeeded in breaking down barriers for those with milch animals. Remarkable new awareness has been developed and observed among the producers.

Resolving Social Inequity

This social stigma still exists in many parts of rural India. At all the collection centers of APDCs, morning

and evening, hundreds of adults as well as the children of milk producers belonging to all castes come and stand in queue to deliver milk, developing a habit of discipline. The mix of various ethnic and social groups twice a day for a common cause and to their mutual improvement has resulted in reducing social inequity

Hygiene And Cleanliness

All the producers are frequently kept informed on the importance of observing hygiene and cleanliness of animals and milers at the time of milking and at the milk collection centre. It has been observed that such learning is carried with them in their daily living habits.

Superstitions

There were prevailing beliefs in most of the rural areas that milk is a holy commodity and is not meant to be sold and that certain contagious diseases such as rudderpost should not to be treated because they are a curse of God. Regular income and veterinary aid through cooperatives have helped members leave such superstitions behind.

Health Care

The privilege of collecting the milk from members places an obligation on the cooperatives to provide inputs to increase the milk production. Accordingly, the unions operate elaborate veterinary services at their doorstep to take care of cattle health. Exposure to various modern technologies and their applications by the veterinarians to treat their animals has made farmers more aware of healthcare for their family members as well.

Nutrition

As a part of support services, the cooperative society arranges visits to the cattle feed plant and the sale of balanced cattle-feed at the village dairy society. At the cattle feed plant a nutritionist explains the contents of the feed concentrate, proteins, vitamins and minerals, and why they should be fed to a pregnant cow or buffalo.

Impact Indicators Observations

1. Participation of weaker sections Over 75% of the DCS membership are landless, marginal and smallholder producers
2. Milk retention at home 47% of the milk produced is retained at home, daily
3. Milk marketed 53% of the milk produced, daily
4. Milk consumption/capita per day 339 grams

Impact On Infrastructure

Participating farmers have become aware of their responsibility to the community. Every year they generously contribute a portion of their cooperative's profit towards the overall development of the village, such as:

Improving the village approach road condition

Providing facilities to youth through establishing village libraries

Contributing to educational institutions and village primary health centers

Providing and updating day-to-day knowledge by putting television sets in DCSs

Providing a telephone facility to members for better and fast communications

Contributing to establishing the drinking water supply system in the village

Cooperative dairying has therefore shown a significant socio-economic impact in rural development.

Impact On Improved Food Aid And Nutrition

Several studies have revealed that India is better-off now in the area of production of food grains, than before. The real problem though, is that even with additional grain availability, malnutrition persists because those in real need have insufficient purchasing power. The milk producers' organizations (MPOs) do make a contribution towards generating additional income for these poor groups and help build a symbiotic relationship between animal and crop husbandry; income generated from one creates demand for the output of the other, in other words, output of one becomes feed for the other. The Primary Effect of MPOs are to provide greater income to the participating families. As the per capita expenditure increases, so does the expenditure on food products. In other words, there is a proportionate increase in the consumption of food as spending power increases. Thus, additional income provided by MPOs to families below the poverty line actually helps them increase their food intake. MPOs provided income at regular intervals; usually on a daily basis, but sometimes also once a week. Given the low purchasing power of rural households, items of essential consumption not produced by the families themselves, such as salt, sugar, vegetable oils, spices, lentils and vegetables, have to be purchased daily. The provision of additional cash income daily or weekly undoubtedly helps the families increase their purchase and consumption of such essential commodities.

Conclusion

Apart from cooperatives, the dairy sector is still characterized by small-scale, scattered and unorganized small animal holders; low productivity; inadequate and inappropriate animal feeding and health care; lack of assured year-round remunerative producer prices for milk; inadequate basic infrastructure for provision of production inputs and services; inadequate basic infrastructure for procurement, transportation, processing and marketing of milk and lack of professional management. Despite all the problems it faces, the dairy sector holds high promises as a dependable source of livelihood for the vast majority of the rural poor in India. The AMUL model of small-scale dairy production and marketing, as it has evolved and been refined over the last 50 years, also holds high promises for smallholder dairy development in India. Liberalization of world trade in dairy products under the new trade regime of the WTO poses new challenges and has opened up new export opportunities for the dairy industry in India. It needs to enhance competitive economic advantage in dairy products in terms of both quality cost and its credibility in international markets. Milk yield needs to increase so as to decrease the per liter cost of production, quality needs to be enhanced with the adoption of the latest processing and packaging technology will increase export of dairy products.

Research Scholar

Department of Geography, University of Rajasthan

References

1. Department of Animal Husbandry, Dairying & Fisheries <http://dahd.nic.in/dahd/division/dairy-development.aspx>
2. Agro-industries characterization and appraisal: Dairy in India - O.P. Sinha, Dairy Farmers' Organization, Anand, India www.fao.org/fileadmin/user_upload/ags/.../AGSF_WD_21.pdf
3. IUF Dairy Division, Indian Dairy Industry cms.iuf.org/sites/cms.iuf.org/files/Indian_Dairy_Industry.pdf
4. Opportunities And Challenges in The Indian Dairy Industry Dr K.G. Karmakar and Dr G.D.

- Banerjee www.nabard.org/fileupload/DataBank/.../issue9td-6.pdf
5. Opportunities And Challenges in The Indian Dairy Industry www.nabard.org/fileupload/DataBank/.../issue9td-6.pdf
 6. Can Indian Dairy Cooperatives Survive in the New Economic Order? Bhaskar Goswami www.wto.org/english/forums_e/public_forum2007_e/session11_goswami_e.pdf
 7. Strategies for Sustainable Dairy Production in India [www.energymanagertraining.com/.../...](http://www.energymanagertraining.com/.../)
 8. A Study on Improvement in Rural Livelihoods through Dairy Farming www.nird.org.in/NIRD_Docs/ven_finrepo.pdf
 9. A.Anbu and Dr. T. Johnson Sampathkumar, "An Empirical Study on Dairy Cooperative Societies which Satisfies the Dairy Farmer's" International Journal of Management (IJM), Volume 3, Issue 2, 2012, pp. 177 - 185, ISSN Print: 0976-6502, ISSN Online: 0976-6510
 10. Building of farmers, developing entrepreneurship, technical skills and knowledge on scientific dairy farming practices, etc. several programmes have been launched from time to time by State/Central Governments for promoting the sector, although the impact of such programmes varied widely.