



DAIRY FARMING – ROLE IN RURAL DEVELOPMENT

Dr Santosh Kumar¹ and Priyanka Kumari²

¹Assistant Research Officer, Institute of Animal Health and Production, Patna-800014

²Finance Manager, Jeevika, DPCU, Patna-800001

Abstract

Dairy farming playing a major role as a livelihood option among the weaker, small landholders, labourers segments of rural people and women since long back that have been traditionally weak and for many it is the sole source of livelihood bringing cash into their hands, twice a day every day of the year. It has provided a year-round source of income for people who previously could only depend on payments from small seasonal crops or from occasional labour. It is estimated that up to 60-65 percent of the income of this group (marginal and small-scale farmers) now comes from dairying. Studies have shown that dairying in rural areas surpassed crop production in terms of profit in marginal, small and medium-sized holdings. It has been found that for small-scale farmers with irrigated land, dairying and crop production together, were more profitable than crop farming alone. Over the period, dairying has also acquired the contours of a fully-fledged industry in the country and has positively improved the life of people who are engaged in this business, directly or indirectly and playing an extremely critical role in supporting and sustaining livelihoods of a large number of poor.

The Indian context for Dairy

India is the leading producer and consumer of milk across the globe. The Indian dairy sector is divided into organized and mostly unorganized (75%). India has largest bovine population of over 30 millions, producing 198.4 million tones of milk in 2019-20. Despite COVID-19 induced restriction, the organized sector is projected for a 5-6% growth i.e @Rs. 1.5 lakh crore sectoral revenue generation in 2021-22 as per CRISIL. As part of a balanced diet, milk and dairy products can be an important source of dietary energy, protein and fat. Indian agriculture is an economic symbiosis of crop and cattle population. Millions of rural smallholder milk producers dominate India's dairy industry, contributing 62 percent of total milk produced in the country. The milch animals are fed on crop residues and milch animal dung is used as manure for crops. Livestock plays a vital role in the economy; animal husbandry is the most important economic activity in rural areas. The dairy sector today provides 150 million farm households with the triple benefits of nutritive food, supplementary income and productive employment for family labour, mainly for women. Dairying with crossbred cattle and high-yielding buffaloes has become a lucrative business. Owed to the easy cash provided by animal husbandry components, small-scale farmers prefer it to crop production. Further dairying provides a support system to milk producers without disturbing their agro-economic systems. 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. 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, but 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 and 25.6 percent of the agricultural GDP in 2021 and 4.11 percent of the National GDP in 2021. Dairy play a key role on food supply, family nutrition, family income, asset savings, soil productivity, livelihoods, transport, agricultural traction, agricultural diversification and sustainable agricultural production apart from family and community employment. 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 Bihar, COMFED, with its network of over 11638 village Milk Producers' Cooperative Societies, supports over 4.5 lakh Milk Producers. Further, under SGSY (Swarnjayanti Gram Swarojgar Yojana) , the only self-employment programme for rural areas, about 35 per cent swarogaries opted for dairy farming as income generating activity and currently under NRLM(Jeevika in Bihar) approx 25 percent women are taking loans for dairy farming. 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 International Journal of 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.

Contribution to Indian Economy

Dairying has become an important secondary source of income for millions of rural families and has assumed a most important role in providing employment and income generating opportunity. Indian Dairying is unique in more than one ways. Contributing about 5.3 per cent to India's agricultural GDP, milk is a leading agricultural produce. The value output from milk at current prices during 2006-07 has been over Rs.144386 crores which is higher than the output from paddy (Rs.85032 crore) alone and is also higher than the value output from Wheat (Rs.66721 crore) and sugarcane (Rs.28488 crore), put together. The unique feature of the system is that about 120 million rural families are engaged in milk production activities as against big specialized dairy farmers in the west. During the post independence period, progress made in dairy sector has been spectacular. Milk production has increased many folds from a mere 17 million tones during 1950-51 to 104.8 million tones in 2007-08 to 198.4 million tones in 2019-20 and the country's per capita availability become higher than the world's daily average of about 302 gms per day to 394 gms per day in 2018. The role of Dairy industry is of crucial importance to India. The country is the world largest milk producer, accounting for more than 13% of world's total milk production. It is the world's largest consumer of dairy products, consuming almost 100% of its own milk production. Dairy products are a major source of cheap and nutritious food to millions of people in India and the only acceptable source of animal protein for large vegetarian segment of Indian population, particularly among the landless, small and marginal farmers and women. Dairying has been considered as one of the activities aimed at alleviating the poverty and unemployment especially in the rural areas in the rain-fed and drought-prone regions. The progress in dairy sector will result in a more balanced development of the rural economy in country. This impact of Dairy Industry can be categorized into the following: -

- Social impact & Economic impact
- Impact on infrastructure
- Impact on improved food aid security and nutrition.

A. Social Impact & Economic Impact

As dairy farming is open to all without any type of discrimination- in caste, creed, gender and financial status has succeeded in breaking down barriers for those with milch animals. The social dimension of social impact include such as community development, community resilience, livelihood, social equity, health equity, and labor rights and milk producers are getting more aware of the new technologies of the dairy farming also.

a. Resolving Social Inequity

This social stigma still exists in many parts of rural India. At all the collection centers of DCSs, 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 meets twice a day for a common cause and to their mutual improvement has resulted in reducing the social inequity at the village levels.

b. Democracy

At the DCS level members are elected as representatives of the members and manage the DCSs and are responsible for all the policy decisions. All the members are entitled to cast their respective votes (one each) to elect the management committee members. This annual election of the management committee and its chairperson by members raises the participants' awareness of the value of their vote and their rights to elect the right person for the right job and thus shows democracy at the ground level.

c. Hygiene and Cleanliness

At the DCS level all the producers are regularly kept informed on the importance of observing hygiene and cleanliness of animals and milkers 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 habits and thus reduced their expenditure on health.

d. Health Care

The trends/routine of collecting the milk from members places an obligation on the cooperatives to provide inputs to increase the milk production. The DCS unions and Animal Husbandry department are veterinary services at their doorstep of the dairy farmers 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 apart from income generation from dairy farming.

Employment of women is an index of their social and economic status in the society. It has been observed that dairying at the household level is largely a women's domain, the products and income from dairying can be controlled by women. In Bihar particularly with Initiative of Jeevika- Bihar Rural Livelihood Promotion Society along with joint collaboration of Comfed almost 306 DCS are currently running and managed by women itself having 7628 women members and all the women owned DCS are not only earning good profits but simultaneously addressing the nutrition of their families, improved hygiene and cleanliness. Women constitute 71 percent of the labour force in livestock farming; there are 75 million women compared to 15 million men, engaged in dairying.

B. Impact on Infrastructure

At the DCS levels the participating dairy 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 SMS facilities to for better and fast communications • creating what's app group of the members for uniform information and sharing pictures and videos of the best dairy farmers • Cooperative dairying has therefore shown a significant socio-economic impact in overall rural development apart from promoting/motivating new members to adopt the dairy farming as an entrepreneur.

C. Impact on Improved Food Aid and Nutrition

Many 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 dairy farmer 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 system of additional cash income daily or weekly undoubtedly to all dairy farmers certainly helps the families to increase their purchasing and consumption power of all essential commodities and thus address the malnutrition at the rural areas.

CONCLUSION

In addition from dairy cooperatives societies, the dairy sector is still characterized by small-scale, scattered and unorganized milch 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 70 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 litre cost of production, quality needs to be enhanced with the adoption of the latest processing and packaging technology will increase export of dairy products. In nutshell it has been proved that dairy has the power to provide a major pathway out of poverty for individuals, families and communities by making the necessities of life-food, water, shelter and clothing- accessible and affordable.

References: -

- 1.A Study on Improvement in Rural Livelihoods through Dairy Farming
www.nird.org.in/NIRD_Docs/ven_finrepo.pdf
- 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. 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.
- 4.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
- 5.Department of Animal Husbandry, Dairying & Fisheries <http://dahd.nic.in/dahd/division/dairy-development.aspx>
- 6.IUF Dairy Division, Indian Dairy Industry cms.iuf.org/sites/cms.iuf.org/files/IndianDairyIndustry.pdf
- 7.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
- 7.Opportunities And Challenges in The Indian Dairy Industry
www.nabard.org/fileupload/DataBank/.../issue9td-6.pdf
- 8.Patel A., 2004. Smallholder Dairying in India: Challenges Ahead at Workshop on Livestock and Livelihoods – Challenges and Opportunities for Asia in the Emerging Market Environment, 2004).
- 9.Strategies for Sustainable Dairy Production in India www.energymanagertraining.com

