

Dairy cooperatives movement in India:

Characteristics, status and challenges

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The dairy sector is an essential sub-sector of Indian agriculture, contributing ~28% of the total agriculture Gross Value Added (GVA). Dairy cooperatives are the most effective organization in the dairy sector to provide food, nutritional, and livelihood security in India. Despite the significant positive impact on the socio-economic status of rural milk producers and growth in dairy cooperatives over four decades, DCs account only for 20% of the total marketed milk. Although the government has implemented several schemes, the expected results are not yet realized. There is a need for a sustainable development approach to overcome the challenges and strengthen the entire dairy sector in the country. Additionally, the information on factors influencing consumers' purchase intention, consumption, and satisfaction with dairy products may provide a promising path for entrepreneurs to deliver high-value-added dairy products and gain a premium price.

Keywords: Challenges, Cooperative, Dairy sector, Institutions, Product attributes

A COOPERATIVE society is defined as an autonomous association of persons joined voluntarily to meet their everyday economic, social, and cultural needs, and desires through a cooperatively owned and controlled organization democratically. According to conventional social and economic theories, cooperatives add the values manifold by realizing the scale of economies, providing access to markets, increasing market efficiency by reducing transaction costs, and managing associated risks. Dairying is an integral part of the Indian farmer's day-to-day life, accounting for 28.36% of total agricultural and allied sector Gross Value Added (GVA) and 5.21% of total GVA. Small and marginal farmers produce a substantial percentage of milk production in most developing countries. However, their efficiency still needs to improve as DCs need to be connected to technologies, services, and information.

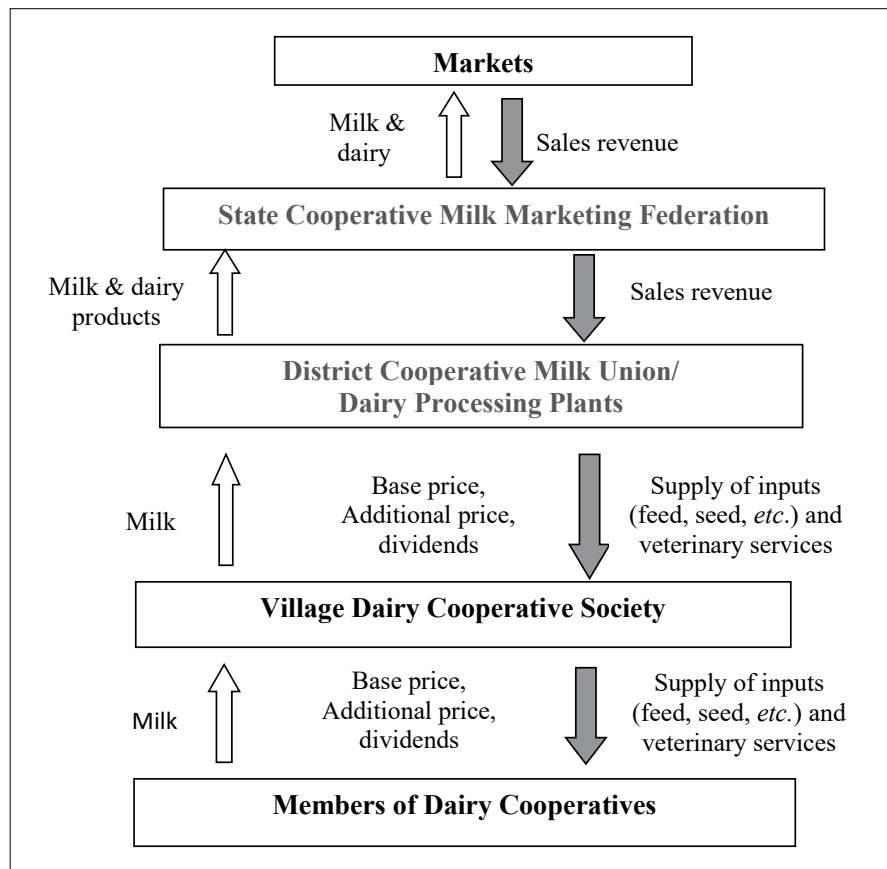


Fig. 1. Three-tier dairy cooperative model in India.

Dairy Cooperatives: Characteristics and status

Dairy Cooperatives (DCs) play a significant role in connecting dairy producers to markets through strong backward and forward linkage. DCs serve as a prominent organization for improving nutritional and livelihood security, gender equality through women empowerment, socio-economic prosperity, and eradicating poverty in rural areas of the country. The three-tier model of DCs in India is depicted in the Fig. 1. The status of the total number of DCs across different country regions is presented in the Fig. 2. The expansion of DCs across the country is uneven due to the prevalence of dairy farming in a region. The Northern part has the maximum share of the total DCS, whereas the Eastern region has the minimum percentage.

Dairy sector challenges and possible remedial strategies

Despite the significant growth of the dairy industry, India still needs to overcome several challenges to achieve sustainable development, profitability, and quality standards. Significant challenges faced by the dairy sector are depicted in Fig. 3. There is a need for a sustainable development approach to overcome the difficulties and strengthen the entire dairy sector in the country. The combination of appropriate veterinary services (breeding and health care), scientific feed management, processing, and marketing of dairy products is crucial to get the potential benefits of dairy sector. Moreover, the government may play a significant role in creating and providing a favourable environment for small-scale DCs by coordinating and regulating institutions and organizations' actions in the dairy sector. Strengthening the DCs will benefit producers and consumers by providing livelihood and milk products at affordable prices.

Several researchers have reported that dairy farmers' participation in DCs led to a significant increase in milk productivity and profitability through a decrease in

Total provisional number of dairy cooperative societies was 2.28 lakh during 2021-22

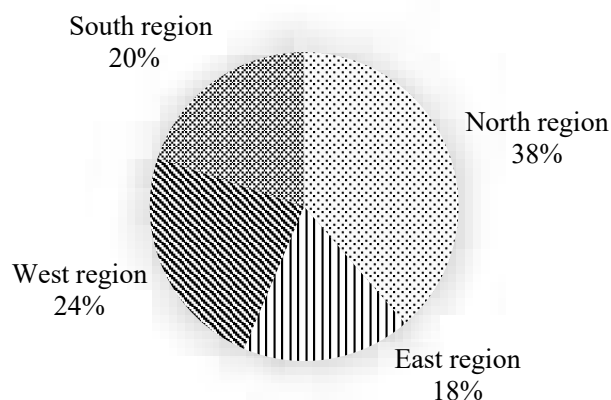


Fig. 2a. Status of total dairy cooperatives across regions in India.

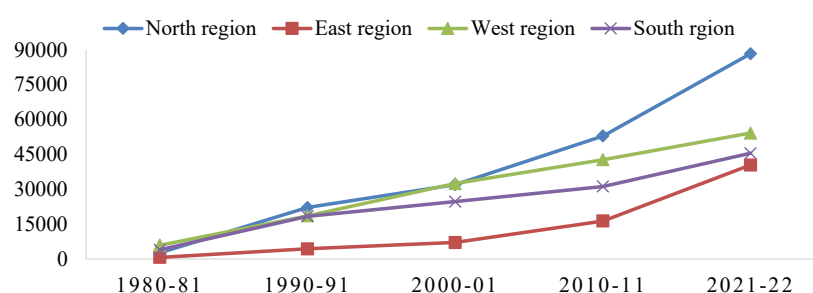


Fig. 2b. Trend of dairy cooperatives in India from 1980-2022.

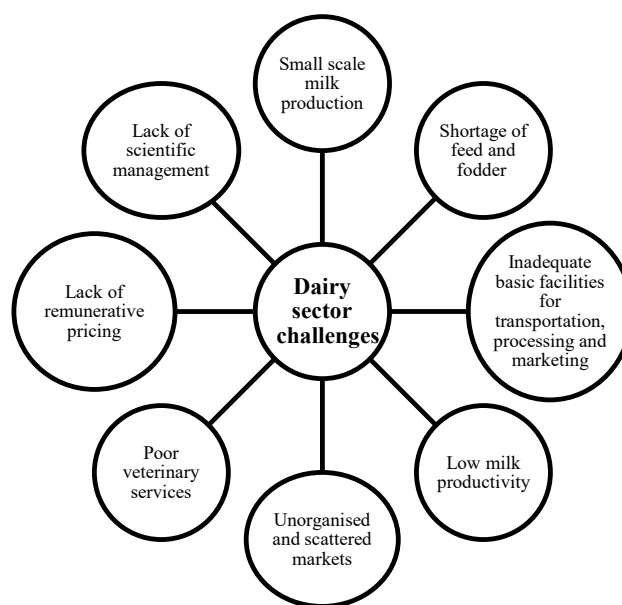


Fig. 3. Challenges faced by the dairy sector.

the cost of milk production and a reduction in the transaction costs of accessing markets, information, and technology. Despite these positive impacts of DCs, their milk production and marketing shares

have remained modest. Currently, only 20% of the milk is handled by DCs. They have the considerable potential to attract more consumers if they shift their prime focus to the quality parameters of milk and

its products. There is ample scope for DCs to play an essential role in the production and marketing of 60% of milk, which is managed by the unorganized sector. Though the Central Government has been implementing several schemes (such as National Programme for Dairy Development, National Dairy Plan (Phase-I), Dairy Entrepreneurship Development Scheme, Dairy Processing and Infrastructure Development Fund, etc.) for strengthening production of quality milk, procurement, processing, and marketing of milk and other dairy products, expected results are not achieved yet. However, the high demand for milk and milk products in metros indicates high confidence in quality through DCs. There is a solid requirement to provide more institutional support to strengthen the dairy sector in the country. DCs cannot be a miracle solution to all problems of the dairy sector, but they can be one of the best solutions. Therefore, promoting cooperative societies is widely viewed as the most important institutional arrangement for stimulating dairy development. The 'Anand model' for dairy development is a practical institutional policy framework in the country. Therefore, similar institutional models involving small-scale dairy holders should be created by introducing appropriate strategies, such as cooperative dairy companies, dairy producer organizations, and private cooperative participation. Adequate institutional arrangements and technology up-gradation with modern processing machines, chilling centers, and feed manufacturing units will encourage more milk producers to market their products to the DCs.

Consumers have been more

concerned about food products' nutritional security, quality, and safety in recent years. The increase in working population and urbanization, increase in per capita and disposable incomes, access to markets using e-marketing platforms, rapid expansion of food retail chains, and significant improvements in food processing and packaging, diversity in culture and food habits have increased the demand and consumption of quality food products in both developed and emerging economies. The increasing demand for high-value-added food products from the market will create great potential for price premiums associated with the products. Therefore, there is a need to initiate a mass awareness program to provide knowledge about the benefits of dairy products' quality and nutritional attributes. Incentive or premium prices for the better quality of dairy products could be ensured around the collection centers competitively. This way, consumers can also get the product according to their choices. Moreover, it is suggested to research the role of product attributes in influencing consumers' purchase intention, consumption, and satisfaction with dairy products to provide a promising direction for different dairy product producers to adopt modern dairy farm systems and alternative marketing models to deliver high value-added dairy products and gain the price premium.

Way forward

Dairy cooperatives have an essential role in providing sustainable income to the farmers. The dairy cooperatives also ensure social justice and equitable distribution of resources. The

marginal dairy farmers need help competing with large-scale dairy companies to purchase inputs and sell milk production. However, dairy cooperatives would help marginal and small dairy farmers reap the benefits of economies of scale. However, it is discouraging that dairy cooperatives handle only one-fifth of total milk production in India. The Indian government has consistently promoted the dairy sector by implementing several schemes. However, despite these efforts, the cooperative dairy sector faces several challenges, including a lack of scientific management and remunerative pricing, illiteracy among its members, and a lack of training /educational opportunities, which make it difficult for cooperatives to contribute maximally to total milk production. The milk cooperatives can easily double their capacity by strengthening and providing more technological support, improving forward-backward linkages, effective and efficient marketing channels, quality parameters, friendly institutional laws, and strengthening cooperative governance. Cooperative dairy companies, dairy producer organizations, and private-cooperative participation are also needed to strengthen small-scale dairy holders. Regular camps among customers' localities and farmers' meetings should be organized to create awareness about the working and benefits of dairy cooperatives for members and society. In the regions where the dairy cooperatives spread is lesser, the success stories of dairy cooperatives should be transmitted to strengthen regional coverage.

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