

TRANSFORMING RURAL LIVELIHOODS: A REVIEW OF DAIRY COOPERATIVES AND THE AMUL MODEL FOR SUSTAINABLE DEVELOPMENT OF DAIRY FARMERS

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ABSTRACT

An independent group of people who have come together voluntarily to address their shared economic, social, and cultural needs and goals through a jointly owned and democratically run business is known as a cooperative. In most emerging nations, agriculture remains the primary driver of economic expansion. Since cooperatives are the only industry that supports the agricultural population's activities, they are vital to rural residents' lives. Cooperatives have a significant impact on rural residents' income and standard of living. Historically, milk has been a significant source of protein for Indians, particularly for the large number of vegetarians in the nation. The apex organization of Gujarat's dairy cooperatives, commonly referred to as "AMUL (Anand Milk Union Limited)," works to give farmers fair returns while also serving the interests of customers by offering high-quality, reasonably priced goods. With the aid of the Amul Model, India has become the world's greatest producer of milk. AMUL plays a very crucial role in the development of the Indian economy. AMUL works world's largest farmer-owned dairy cooperative and associated with 3.6 million farmers. It is organized using a three-tiered framework called the Anand pattern. In this paper, an attempt has been made to conceptualize the key aspect of Dairy Cooperatives in India with special reference to AMUL Model. The authors in this paper will also attempt to highlight the current status of Dairy Cooperatives in India. Furthermore, research paper also focusing on the key linkages between AMUL model and sustainable development of Dairy Farmers of India. It also showcase the interconnection between economic betterment of the Dairy Farmers and sustainable development of Rural India.

KEYWORDS: Dairy Cooperatives, AMUL, Farmers Development, Cooperative Values, Sustainable Development.

Introduction

An association of people with shared obligations and ideas for the betterment of the poor, particularly the underprivileged, is known as a cooperative society. To help the rural poor without

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changing the village social structure, dairy development along cooperative lines was thought to be the most effective way to provide a guaranteed market for milk at set prices, a supply of cattle feed at a fair price, and effective veterinary and extension services. Since they are landless, dairy cooperatives throughout India assist small and marginal farmers in taking charge of their own lives. These farmers make up 75% of all farmers working in this sector. ([https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/635541/EPRS_BRI\(2019\)635541_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/635541/EPRS_BRI(2019)635541_EN.pdf)) The success of dairy cooperatives can be attributed to the fact that they are owned and run by farmers. District-level milk supply unions and primary milk producer organizations form the foundation of dairy cooperatives. While state federations operate in certain states, the main milk societies are federated into unions. All state-level cooperatives' marketing initiatives are coordinated at the federal level by the National Co-operative Dairy Federation (NCDFI). The national institution responsible for promoting, funding, and assisting producer-owned and managed milk distribution firms is the National Dairy Development Board (NDDB). To replicate the 'Anand Model' of dairy development, NDDB was founded. Since its founding in 1965, the board has taken on the difficult job of bringing the illiterate farmers together into a sizable cooperative network. By offering them financial support and technical assistance, NDDB aids in the growth of dairy cooperatives. Cooperatively produced milk product brands have grown to be associated with excellence and affordability throughout time. such as Saras (Rajasthan), Verka (Punjab), Vijaya (AP), and Amul (GCMMF). Among those that have gained the trust of customers are Nandini (Karnataka), Milma (Kerala), and Gokul (Kolhapur). (https://www.researchgate.net/publication/340085141_Dairy_Cooperatives_and_Dairy_Development_in_India)

Review of Literature

K. Rajendran and Samarendu Mohanty (2004) examined the performance of the milk marketing system in the Indian dairy industry, which has experienced unprecedented expansion in recent history. The National Dairy Development Board (NDDB) institutionalized this strategy, and the Operation Flood Project, along with its supporting nationwide milk cooperative network, played a crucial role in marketing milk produced in rural areas.

Shiv Raj Singh and K. K. Datta (2013) found that low-input and low-to-moderate output systems constitute the majority of the milk production structure in India. This aligns with the resource endowments of small producers, characterized by limited land ownership, family labour, and access to common property resources. With an increase in average production, commercial farms have emerged, replacing traditional dairy farms. These commercial farms have adopted contemporary farming methods, utilizing dairy farm power and mechanization. However, recognizing the dairy sector's inclusivity, policymakers have been inspired to support smallholder dairy farming in India.

Virendra Kumar, K. G. Wankhede, H. C. Gena (2015) found that cooperatives promote diverse activities essential for improving rural livelihoods and provide the flexibility to adapt to local conditions. Given that India, one of the most populous nations heavily reliant on agriculture for livelihood security, is home to over 25% of the world's poor, any successful development project undertaken by cooperatives in India could serve as a valuable model for other developing nations. Consequently, a thriving cooperative movement in India has the potential to safeguard rural livelihoods and contribute to the improvement of rural livelihoods globally.

Monika Tiwari, Dr. Garraj Singh Ahirwar (2017) analyzed the role of cooperative societies, concluding that these organizations were historically established with the goal of assisting workers in improving their standard of living through the fair-trade movement. In India, cooperative societies, particularly those serving the agricultural sector, have experienced significant growth since the country's independence from Britain in 1947.

V. Rajalakshmi and S. Anthony Rahul Golden (2024) analyzed that a company's profitability hinges on consumer perception, which directly impacts its ability to attract new customers and retain existing ones. Their research indicates that dairy consumers prioritize quality, taste, texture, freshness, and convenience when making purchasing decisions. However, the central challenge lies in balancing affordability with these crucial product attributes.

Smit Trivedi, M. C. Prajapati, A. K. Makwana, M. D. Gurjar and K.C. kamani (2024) conducted a survey analysis and found a diverse Amul consumer base in terms of age, gender, employment, and education. The study revealed that young, employed adults from Anand city predominantly comprised the consumer base. Amul Gold and Amul Masti Dahi were the preferred choices for most respondents, with daily consumption being common. Overall, consumer satisfaction was high, attributed to positive

feedback on product quality and packaging. However, some consumers reported availability issues, suggesting areas for potential improvement in Amul's distribution network.

Abhijit Das (2024) examined the role of cooperatives, highlighting their vital importance for economic development, particularly in transforming rural economies with adequate support. Cooperatives offer stable jobs, facilitate skill development, and empower women, thereby strengthening communities. (1) Success in sectors like dairy, sugar, and agriculture demonstrates their positive impact. (2) This highlights their potential for inclusive and sustainable rural growth, making their support essential for holistic rural development.

The Objective of the Study

The main objective of the research study is to conceptualize the key aspects of Dairy Cooperatives in India with special reference to AMUL. The authors in this paper would also like to attempt to review the status of Dairy Cooperatives in India and recent initiatives taken by NDDDB for Dairy Development in the country. The paper also highlights the Functioning of the AMUL for overall development of Dairy Farmers. Furthermore, the paper also showcase the key linkages between AMUL and the Sustainable Development of Dairy cooperatives in Rural India.

Research Methodology

The research paper is based on secondary data sourced from journals, books, research articles, media reports, and websites. Looking into the requirements of the Study's objectives, the research design employed for the Study is exploratory. Available secondary data was extensively used for the Study. In this research paper, the required data were procured through secondary sources considering books, research journals, reports, and Websites. An attempt has been made to conceptualize the critical aspects of the Dairy Cooperatives. The authors in this paper would also like to attempt to review the status of Dairy Cooperatives and recent initiatives taken by AMUL for rural development. Further, this paper will highlight the linkages between Dairy Cooperatives and the Sustainable Development of Rural India.

Concept of Dairy Cooperatives

Milk presents unique challenges as a farm commodity. Its perishable nature necessitates daily production and rapid movement from farm to market, while seasonal and daily fluctuations in production due to biological factors often mismatch with varying consumer demand. Dairy cooperatives are voluntary organizations formed by dairy farmers to collectively market their milk and products. This empowers farmers, improves their livelihoods, and strengthens the rural economy. The Amul model, a renowned success story in India, exemplifies this. Founded in 1946, Amul, a three-tiered cooperative structure, empowered farmers by enabling them to control milk production, processing, and marketing. By prioritizing quality, building a strong brand, and focusing on farmer welfare, Amul transformed India's dairy sector, demonstrating the transformative potential of dairy cooperatives in rural development.

Current Status of Dairy Cooperatives in India

The Gujarat Cooperative Milk Marketing Federation Ltd. (GCMMF), popularly known as Amul, is a leading dairy cooperative in India. With a network of 18 District Cooperative Milk Producers' Unions and over 3.64 million producer members, Amul boasts a robust presence across the country. The cooperative handles a daily milk processing capacity of 50 million liters, with an average daily milk collection of 35 million liters in 2023-24. Amul's extensive network includes 18,600 village societies, facilitating the collection and processing of milk from farmers. The cooperative also has a significant cattle feed manufacturing capacity of 10,000 metric tons per day. In 2023-24, Amul achieved a remarkable sales turnover of Rs. 59,545 crores, reflecting its significant contribution to the Indian dairy industry.

There are 16,385 dairy cooperatives in Gujarat and 143,772 dairy cooperatives in India. During the 2023-2024, Gujarat's milk production reached 18,312 tonnes, while India's total milk production reached a remarkable 239,299 tonnes.

Structure of Dairy Cooperatives with Special Reference to AMUL

In India, dairy cooperatives are organized using a three-tiered framework called the Anand pattern. The Anand Pattern, a successful cooperative model, integrates production, processing, and marketing, empowering producers through democratic decision-making and professional management. This structure enables farmers to access modern techniques and services beyond their individual reach. By fostering people's participation and ownership at every level, from village cooperatives to national marketing, the Anand Pattern directly connects producers with consumers.

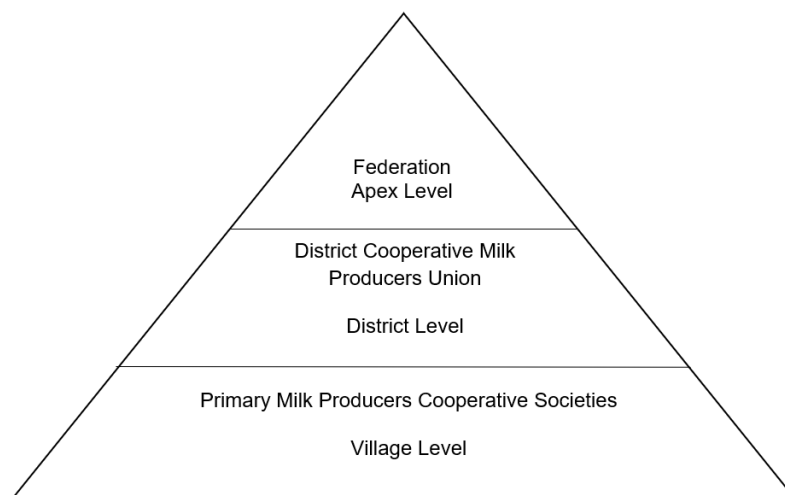


Figure 1: Structure of AMUL Model

- **Village Level**

A village's milk producers band together to create a Village Dairy Cooperative Society (VDCS) when they have extra milk after their own usage. The main society within the three-tier system is the Village Dairy Cooperative. According to the one member, one vote concept, it is run by an elected Management Committee made up of nine to twelve elected representatives of the village's milk producers. To oversee daily operations, the village society also selects a secretary, who serves as both a paid employee and a member secretary of the Management Committee.

- **District Level**

A District Milk Union is formed by the Village Societies in a District that have extra milk after local sales. The second stage in the three-tier organization is the Milk Union. It is managed by a Board of Directors made up of nine to eighteen elected Village Societies, and it is a member of the District's Village Dairy Societies. A professional Managing Director, who is a paid employee and the Board's member secretary, is also appointed by the Milk Union to oversee daily operations.

- **Apex Level**

A State Cooperative Milk Federation is formed by the federation of a state's milk unions. In the three-tier arrangement, the Federation is at the top. Every cooperative milk union in the state is a member, and it is run by a board of directors made up of one elected representative from each milk union. To oversee the day-to-day operations, the State Federation also selects a Managing Director, who is a paid staff member and the Board's member secretary. Additionally, it hires a variety of personnel to help the Managing Director carry out his daily responsibilities.

The Role of NDDB in Dairy Cooperatives

Established on July 16, 1965, the National Dairy Development Board (NDDB) recognizes rural development as fundamental to India's socio-economic progress. Its core mission centers around supporting and strengthening farmer-owned cooperatives. By empowering millions of milk producers, the NDDB has transformed rural livelihoods, making dairying a profitable endeavour and ensuring India's milk self-sufficiency. Furthermore, the NDDB actively promotes sustainable livelihoods for farmers by introducing innovative income-generating activities. The NDDB's success lies in its cooperative approach, fostering a shift from exploitation to empowerment, traditional methods to modern technologies, and stagnation to progress. By effectively integrating farmers' knowledge and enthusiasm with expert management, the NDDB has successfully captured the market for liquid milk and milk products while encouraging farmer investment in essential services and inputs. Ultimately, the NDDB aims to utilize dairying as a catalyst for a brighter future for millions of small-scale milk producers.

Operation Flood, a globally recognized rural development program launched in 1970, empowered Indian dairy farmers by placing control of their resources in their own hands. This initiative established a

National Milk Grid connecting producers across the nation with consumers in hundreds of cities, ensuring fair and transparent market prices while mitigating regional and seasonal price variations. Built upon a foundation of village-level cooperatives, Operation Flood aimed to increase milk production, augment rural incomes, and provide consumers with reasonable prices. Implemented in three phases, it witnessed a significant expansion of the cooperative network, improved milk production through technological advancements in animal health and nutrition and ultimately transformed dairying into a powerful instrument of rural development, generating employment and income for millions of farmers.

The Role of GCMMF in Dairy Cooperatives

The Amul success story began in Kaira district, Gujarat, in the 1940s, when farmers, facing exploitation by private milk contractors, united under the leadership of Tribhuvandas Patel and Dr. Verghese Kurien. This collaboration led to the formation of a farmer-owned cooperative, empowering them to control the entire milk value chain, from procurement to marketing. The "Anand Pattern" emerged, emphasizing farmer-centric services like veterinary care and quality feed to ensure sustainable and profitable dairy farming. Built upon the strong "Amul" brand, the cooperative expanded across Gujarat, culminating in the establishment of the Gujarat Cooperative Milk Marketing Federation (GCMMF) in 1973. GCMMF, owned by district-level milk unions, transformed the dairy landscape, growing from a modest beginning into a major milk processor. Prioritizing farmer welfare, GCMMF focuses on maximizing returns for farmers while maintaining a sustainable dividend policy. The company's unwavering commitment to quality and consumer trust has established Amul as a trusted brand, solidifying its position as a leader in the Indian dairy industry.

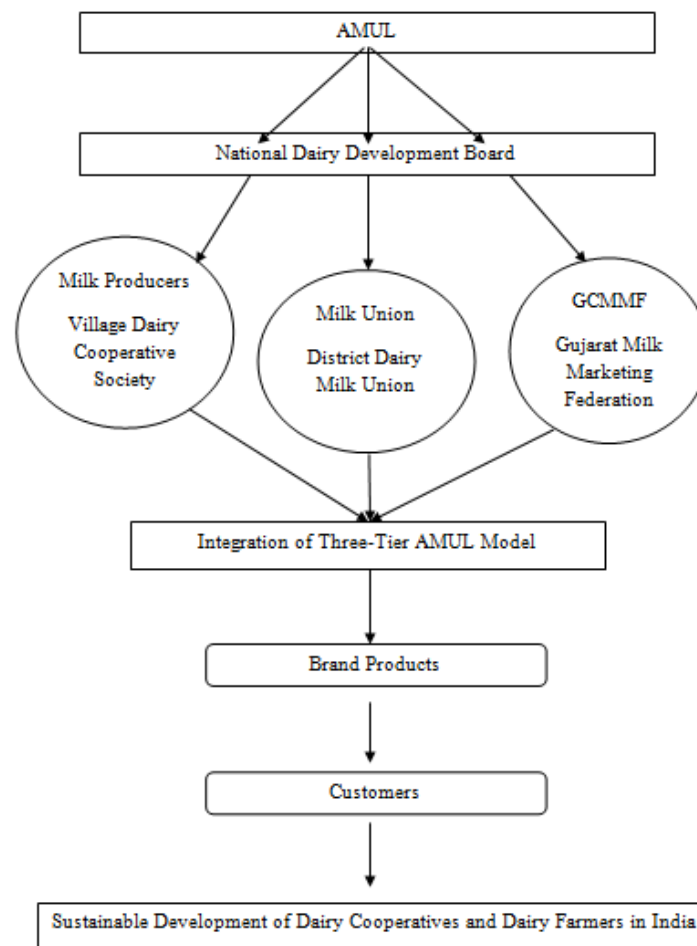


Figure 2: Model for Sustainable Development of Dairy Cooperatives through AMUL

The Amul model in India exemplifies a successful approach to sustainable dairy cooperative development. At its core lies a three-tiered structure. Village Dairy Cooperative Societies, at the base, collect milk from individual producers. This milk is then pooled and processed at District Dairy Milk Unions. The Gujarat Cooperative Milk Marketing Federation (GCMMF), the apex body, oversees all aspects, from marketing and processing to research and development, ensuring seamless milk flow from farmer to consumer. The National Dairy Development Board (NDDB) plays a crucial role in supporting and guiding this entire cooperative network, providing technical assistance, financial support, and policy guidance to strengthen the cooperatives. A key element of the Amul model is the strong emphasis on quality and brand building. The "Amul" brand, synonymous with quality and trust, ensures consumer satisfaction and drives market demand. This, coupled with the cooperative's commitment to fair pricing for farmers, has been instrumental to its success. By empowering farmers, improving their incomes, and ensuring a stable supply of high-quality milk and dairy products, the Amul model demonstrates a successful path for sustainable development of dairy cooperatives and the upliftment of rural communities in India. The Amul model serves as an inspiration for other regions and countries seeking to establish successful and sustainable dairy cooperatives. It underscores the importance of farmer empowerment, cooperative principles, and strong market linkages in achieving economic and social development in rural areas.

Conclusion

Dairy cooperatives play a significant role as growth engines of the Indian economy and have been critical to the country's socioeconomic development. Their primary objectives are to enhance both nutritional and economic well-being nationwide. They achieve this by transforming the largely unorganized dairy industry into a structured system, focusing on improving animal health and productivity, empowering women, and raising the living standards of rural farmers. Thus, dairy cooperatives are crucial for the development of dairy farmers, for whom dairying is often the sole source of income in rural areas. Government initiatives and technological advancements will be game-changers for these cooperatives. The AMUL model demonstrates strong stability for dairy farmers. However, the success of dairy cooperatives and models like AMUL depends not only on government support but also on the active participation of individual dairy farmers, who are central to dairy development. Public-private partnerships can also be implemented to further farmers' welfare.

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