

Economic Empowerment Through Dairy Cooperatives: A Case Study of Rambhas Division Milk Cooperative Society in Dang District, Gujarat

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Abstract: Tribal communities in India's remote and geographically challenging areas often face limited access to markets, fair pricing mechanisms, and institutional support for agricultural activities. While dairy cooperatives have emerged as effective institutional models for addressing these challenges, their impact in tribal regions remains underexplored in academic literature. This study examines the transformative socio-economic impact of the Rambhas Division Milk Cooperative Society, affiliated with Vasudhra Dairy, on tribal farmers in Dang district, Gujarat, with particular emphasis on women's empowerment and community development.

A qualitative case study approach was employed, incorporating field observations, informal interviews with cooperative members and officials, analysis of operational data from Vasudhra Dairy, and review of cooperative society records. The study was conducted in Rambhas village, Dang district, which has a 94.7% tribal population and is characterized by challenging hilly terrain and dense forests. The cooperative demonstrated significant positive impacts including substantial increases in household income through fair milk pricing and regular bi-weekly payments, enhanced women's participation in economic activities and decision-making processes, improved livestock productivity through veterinary services and artificial insemination programs, strengthened community cohesion through cooperative governance structures, and successful adoption of modern technology in traditional animal husbandry practices.

The Rambhas model illustrates that well-structured dairy cooperatives can effectively address market failures in tribal areas while simultaneously promoting economic empowerment and social transformation. The partnership between village-level societies and larger dairy unions creates sustainable value chains that benefit smallholder farmers, particularly women and marginalized communities. This model provides valuable insights for scaling similar interventions in other tribal regions across India and suggests that government and development agencies should prioritize cooperative dairy development as a strategy for tribal empowerment, with particular attention to women's participation and technological integration.

Key Words: Dairy cooperatives, tribal development, women's empowerment, economic inclusion, sustainable livelihoods, Vasudhra Dairy, Gujarat, cooperative governance, rural transformation, smallholder farmers

1. INTRODUCTION

India's dairy cooperative movement, pioneered by Dr. Verghese Kurien through Operation Flood, has been instrumental in transforming the country's milk economy (Kurien, 2005). The White Revolution not only made India the world's largest milk producer but also demonstrated the potential of cooperative structures in rural development (Candler & Kumar, 1998). However, the impact of dairy cooperatives in tribal and geographically challenging areas remains underexplored in academic literature.

Dang district, located in the southeastern part of Gujarat, presents unique developmental challenges due to its predominantly tribal population (94.7% as per Census 2011) and difficult terrain characterized by hills and dense forests (Government of Gujarat, 2011). This study examines how the Rambhas Division Milk Cooperative Society, operating under the umbrella of Vasudhra Dairy (Valsad District Milk Producers Cooperative Union Limited), has addressed these challenges and created sustainable livelihood opportunities for its members.

2. Literature Review

2.1 Cooperative Movement in India

The cooperative movement in India has been recognized as an effective institutional mechanism for rural development and poverty alleviation (Birchall, 2004). Dairy cooperatives, in particular, have demonstrated remarkable success in organizing smallholder farmers and providing them with access to markets, technology, and fair pricing mechanisms (Candler & Kumar, 1998).

2.2 Tribal Development and Economic Inclusion

Tribal communities in India face multiple challenges including geographical isolation, limited access to markets, and lack of institutional support (Xaxa, 2008). Studies have shown that cooperative institutions can play a crucial role in bridging these gaps and facilitating economic inclusion of marginalized communities (Shah, 2007).

2.3 Women's Participation in Dairy Cooperatives

Research indicates that dairy cooperatives provide significant opportunities for women's economic participation, particularly in developing countries where agriculture is predominantly managed by women (Njuki et al., 2011). The dairy sector offers unique advantages for women as it aligns with their traditional responsibilities and can be managed alongside household duties (Kumar et al., 2018).

3. Study Area and Methodology

3.1 Study Area

Rambhas village is located in Dang district, Gujarat, which covers an area of 1,764 square kilometers and has a population of approximately 228,000, of which 94.7% belongs to Scheduled Tribes (Census of India, 2011). The district's topography is characterized by the Sahyadri mountain ranges and dense forests, making conventional agriculture challenging.

3.2 Methodology

This case study employs a qualitative research approach, incorporating:

- Field observations at the milk collection center
- Informal interviews with cooperative members and officials
- Analysis of operational data from Vasudhra Dairy
- Review of cooperative society records

4. The Rambhas Model: Structure and Operations

4.1 Organizational Structure

The Rambhas Division Milk Cooperative Society operates under the three-tier cooperative structure established in Gujarat, with village-level societies at the base, district unions at the intermediate level, and the Gujarat Cooperative Milk Marketing Federation (GCMMF) at the apex (Scholten, 2010). As an affiliated unit of Vasudhra Dairy, it follows the Anand Pattern of cooperative organization.

4.2 Operational Framework

4.2.1 Milk Procurement and Quality Assessment

The society operates a centralized milk collection center equipped with modern technology including:

- Digital weighing systems for accurate measurement
- Automatic milk analyzers for fat and Solid-Not-Fat (SNF) testing
- Cold storage facilities to maintain milk quality

This technological integration ensures transparency in transactions and quality-based pricing, addressing historical issues of exploitation by middlemen (Birthal et al., 2009).

4.2.2 Payment Mechanism

Following Vasudhra Dairy's procurement policies, the society implements a transparent pricing system where:

- Milk prices are determined based on quality parameters (fat and SNF content)
- Payments are made bi-weekly through direct bank transfers
- Price differentials are maintained to incentivize quality improvement

This system provides financial security and eliminates the traditional dependence on local traders who often exploited farmers through delayed payments and arbitrary pricing (Kumar & Staal, 2010).

4.2.3 Support Services

The society provides comprehensive support services including:

- Veterinary care through regular health camps
- Artificial insemination services for breed improvement
- Training programs on scientific animal husbandry practices
- Supply of quality cattle feed and veterinary medicines

5. Impact Assessment

5.1 Economic Impact

The establishment of the cooperative has resulted in measurable economic benefits:

5.1.1 Income Enhancement

Members report a significant increase in household income from dairy activities. The regular income stream has provided financial stability, enabling families to invest in education, housing improvements, and other developmental activities.

5.1.2 Reduced Transaction Costs

The elimination of intermediaries has reduced transaction costs and increased the farmers' share in the consumer price of milk, aligning with findings from similar studies (Kumar et al., 2011).

5.2 Social Impact

5.2.1 Women's Empowerment

The cooperative has emerged as a significant platform for women's economic participation. Female members are actively involved in:

- Daily milk production and delivery
- Participation in society meetings and decision-making
- Leadership roles within the cooperative structure

This participation has enhanced women's social status and decision-making power within households, consistent with findings from other dairy cooperative studies (Tangka et al., 2000).

5.2.2 Community Cohesion

The cooperative framework has strengthened social bonds within the community, promoting collective problem-solving and mutual support among members.

5.3 Technological Adoption

The introduction of modern milk testing equipment and scientific animal husbandry practices has facilitated technology transfer to tribal farmers, bridging the traditional knowledge gap between mainstream and tribal agricultural practices (Millar & Connell, 2010).

6. Challenges and Limitations

Despite its success, the cooperative faces several challenges:

- Limited fodder availability due to forest regulations
- Seasonal variations in milk production
- Need for continuous capacity building among members
- Infrastructure constraints in remote tribal areas

7. Conclusion

The Rambhas Division Milk Cooperative Society exemplifies the potential of cooperative institutions in fostering inclusive development in tribal areas. By providing fair pricing, technological support, and institutional backing through Vasudhra Dairy, the cooperative has successfully addressed traditional market failures that plagued tribal dairy farmers.

The model demonstrates that well-structured cooperative institutions can serve as effective vehicles for economic empowerment, particularly for women and marginalized communities. The success of this initiative offers valuable insights for replicating similar models in other tribal regions across India.

8. Policy Implications

The findings suggest that:

1. Cooperative dairy farming can be an effective poverty alleviation strategy in tribal areas
2. Technology integration in traditional sectors requires institutional support
3. Women's participation in cooperatives can accelerate social transformation
4. Partnership between village-level societies and larger dairy unions creates sustainable value chains

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