Role of Farmer Producer Organizations in Strengthening the Livestock Sector: Opportunities, Challenges and Future Prospects in India

***Shreyash B Sutar[1], U. S. Gaikwad[2], D. K. Deokar[3], S. A. Dhage[4], A. T. Lokhande[5] and D. K. Kamble[6]**

[1]Ph.D. Scholar, Department of Animal Husbandry and Dairy Science,
Mahatma Phule Krishi Vidyapeeth, Rahuri, Dist- Ahilyanagar, Maharashtra, India
[2]Professor (CAS), Department of Animal Husbandry and Dairy Science
Mahatma Phule Krishi Vidyapeeth, Rahuri, Dist- Ahilyanagar, Maharashtra, India
[3]Associate Professor, Department of Animal Husbandry and Dairy Science,
Mahatma Phule Krishi Vidyapeeth, Rahuri, Ahilyanagar, Maharashtra, India
[4]Associate Professor, Department of Animal Husbandry and Dairy Science,
Mahatma Phule Krishi Vidyapeeth, Rahuri, Ahilyanagar, Maharashtra, India
[5]Assistant Professor, Department of Animal Husbandry and Dairy Science,
Mahatma Phule Krishi Vidyapeeth, Rahuri, Ahilyanagar, Maharashtra, India
[6]Head, Department of Animal Husbandry and Dairy Science, Mahatma Phule Krishi Vidyapeeth,
Rahuri, Ahilyanagar, Maharashtra, India

*Corresponding Author's email: shreesutar413304@gmail.com

How to Cite this Article:

Sutar, S. B., Gaikwad, U. S., Deokar, D. K., Dhage, S. A., Lokhande, A. T. & Kamble, D. K. (2026). Role of Farmer Producer Organizations in Strengthening the Livestock Sector: Opportunities, Challenges and Future Prospects in India. International Journal of Creative and Open Research in Engineering and Management, <i>02</i>(8), 1-9. https://doi.org/10.55041/ijcope.v2i8.100

https://doi.org/10.55041/ijcope.v2i8.100

Abstract

The Indian livestock sector has emerged as a resilient and rapidly expanding engine of agricultural growth, with its contribution to agricultural Gross Value Added (GVA) rising from 24.3% in 2014-15 to over 30.3% in 2022-23. Despite maintaining some of the largest populations of livestock globally, production remains heavily fragmented, dominated by smallholder and marginal farmers who face structural inefficiencies, high input costs, and weak market integration. Collectivization through Farmer Producer Organizations (FPOs) represents an innovative institutional mechanism designed to bridge these gaps. This paper reviews the current landscape, structural constraints, operational modalities, and socio-economic impacts of livestock-based FPOs in India, with a specific focus on regional dynamics within Maharashtra. Case studies demonstrate that integrating smallholders into organized FPO frameworks lowers production costs, secures market linkages, mitigates risk, and promotes inclusive rural empowerment.

Keywords: Farmer Producer Organizations, Livestock Sector, Smallholder Farmers, Value Chain Integration, Maharashtra.

1. Introduction

Agriculture remains the cornerstone of the Indian economy, driving rural livelihoods and regional food security. However, accelerating landholding fragmentation, shifting climate regimes, and extreme market volatility have progressively compressed the profit margins of traditional crop cultivation. Concurrently, the livestock sector has demonstrated notable resilience, evolving into one of the fastest-growing sub-sectors within the broader agricultural ecosystem. The national economic significance of livestock is underscored by a Compound Annual Growth Rate (CAGR) of 7.38% between 2014-15 and 2022-23, outstripping many crop components. According to the 20th National Livestock Census, India manages an expansive resource base comprising roughly 536 million livestock animals and over 850 million poultry birds. Nevertheless, the structural architecture of the sector is overwhelmingly populated by smallholder and marginal producers who rear animals as a subsidiary livelihood alongside crop farming. These smallholders operate under severe resource constraints, leaving them vulnerable to local intermediaries and systemic supply chain shocks. To reverse these baseline inefficiencies, institutional shifts toward collective action—specifically through Farmer Producer Organizations (FPOs)—have become a policy priority.

2. Macro Overview of the Livestock Sector

2.1 National Landscape

At the national tier, livestock serves a multifunctional role, supplying high-value nutritional assets (milk, meat, eggs) while acting as an ongoing cash-flow buffer against seasonal unemployment and catastrophic crop failures. India leads global rankings in total milk production and stands second globally in egg production. Yet, because small-scale producers dominate production, traditional management practices predominate, which curtails the sector's aggregate productivity floor.

2.2 Regional Dynamics: Maharashtra

In Maharashtra, the livestock sector represents a critical component of the state's rural economy. The sector is highly diversified across dairy, poultry, and small ruminant sectors.

- **Dairy Sector:** The state features an extensive network of milk collection centers, processing plants, and chilling infrastructures designed to manage value-chain logistics.
- **Small Ruminants (Goat & Sheep):** Small ruminant farming forms a critical socio-economic safety net in the semi-arid, drought-prone zones of Maharashtra. Goat rearing is favored by resource-poor households due to its negligible initial capital demands and high hardiness under severe climatic fluctuations.
- **Poultry:** Commercial poultry systems have scaled rapidly, introducing highly integrated contract manufacturing and supply chain practices across the state.

3. Structural Constraints and Market Challenges

To understand the necessity of institutional interventions like FPOs, the underlying technical, financial, and structural bottlenecks choking livestock productivity must be assessed at both the national and state levels.

Table 1: Matrix of Core Constraints in India and Maharashtra's Livestock Sectors

Constraint Category	National Dimension (India)	State Dimension (Maharashtra)
Genetic & Breeding	Dominance of non-descript/low-yielding breeds; low adoption of scientific selection models.	Small herd sizes operating at subsistence levels with poor housing infrastructure.
Feed & Nutrition	Massive deficits in green/dry fodder and concentrates; soaring component feed costs	Severe seasonal fodder shortages exacerbated by erratic monsoons and declining grazing ranges.
Veterinary Infrastructure	Acute shortages of veterinary professionals and diagnostic labs; low vaccination ceilings.	Highly uneven distribution of animal clinics, leaving remote and tribal zones underserved.
Marketing & Supply Chain	Absence of organized local markets; heavy pricing dependencies on unorganized traders.	Lack of price stabilization and transparent weight-based valuation for small ruminants.
Financial & Climatic	Systemic exclusion from institutional credit due to lack of asset collateral.	Recurrent groundwater exhaustion, acute heat stress, and vulnerability to macroeconomic shocks.

4. The Institutional Framework of Farmer Producer Organizations (FPOs)

4.1 Concept and Operational Architecture

An FPO is a legally validated entity instituted by primary producers—including crop farmers, livestock rearers, and artisans—to elevate their economic security via structured collectivization. Legally registered primarily as Producer Companies under the Companies Act, FPOs represent a hybrid institutional design. They merge the democratic governance and equity-driven social goals of traditional cooperative bodies with the operational agility and competitive efficiency of private corporations.

The underlying mechanism relies entirely on the aggregation of resources and production surpluses. By acting as a single, combined block, member-farmers achieve structural economies of scale, maximize collective bargaining leverage, lower transaction overheads, and streamline multi-stage value chain integration.

4.2 Promotional Ecosystem and Implementing Agencies

The growth of the FPO ecosystem across India is driven by targeted policy mandates and institutional backing from dedicated central and state Implementing Agencies (IAs):

1. Small Farmers Agri-Business Consortium (SFAC)
2. National Cooperative Development Corporation (NCDC)
3. National Bank for Agriculture and Rural Development (NABARD)
4. National Agricultural Cooperative Marketing Federation of India (NAFED)
5. North Eastern Regional Agricultural Marketing Corporation Limited (NERAMAC)
6. Tamil Nadu-Small Farmers Agri-Business Consortium (TN-SFAC)
7. Small Farmers Agri-Business Consortium Haryana (SFACH)
8. Watershed Development Department (WDD) – Karnataka
9. Foundation for Development of Rural Value Chains (FDRVC) – Ministry of Rural Development (MoRD)

4.3 Livestock-Focused FPOs in Maharashtra

To counter localized market failures, several dedicated producer companies have scaled operations within Maharashtra:

- **Savitribai Phule Goat Farming Producer Co. Ltd.** (Sinnar, Nashik District)
- **Sangatee Farmer Producer Company Limited** (Gadchiroli)
- **Sahyadri Goat & Sheep Producer Company Limited** (Rashin, Karjat, Ahilyanagar)
- **Ved Pandhari Farmers Producer Company Ltd.** (Ropale, Pandharpur, Solapur)

5. Functional Mechanism: Transforming Livelihoods

Livestock FPOs systematically optimize operations across multiple nodes of the value chain to enhance smallholder profitability:

- **Input Cost Rationalization:** Feed formulations represent roughly 60% to 70% of aggregate livestock maintenance costs. By bypassing retail intermediaries and purchasing raw inputs directly from primary manufacturers, FPOs lower per-unit input costs for members while ensuring quality controls.
- **Veterinary and Diagnostic Backstopping:** FPOs mitigate livestock mortality by organizing structured health camps, seasonal deworming drives, and synchronized vaccination protocols in tandem with state veterinary bodies.
- **Bargaining Power and Quality-Based Valuation:** Aggregating raw output transforms fragmented producers from price-takers into organized, volume-driven market participants. This allows them to secure direct agreements with institutional buyers and processors.
- **Value Addition and Processing:** FPOs establish localized post-harvest frameworks (such as chilling points, automated milk collection units, and packaging facilities). This enables them to transform perishable raw inputs into shelf-stable, high-margin consumer derivatives (e.g., ghee, paneer, curd, and standardized meat cuts).
- **Financial and Social Inclusion:** FPOs act as reliable credit intermediaries, allowing smallholders without formal collateral to secure bank credit lines and comprehensive livestock insurance. Crucially, since women carry out the majority of day-to-day animal care activities, FPOs provide a vital pathway for direct financial inclusion and gender equity within rural communities.

6. Empirical Insights from Case Studies

Table 2: Comparative Synthesis of Institutional Models and Livelihood Impacts

Case Study / Model	Operational Blueprint	Core Livelihood Outcomes & System Impacts
Amul Model (Gujarat)	Three-tier structure: Village societies - District unions - State federations.	Assured year-round markets; daily cash liquidity; comprehensive value chain integration.
NDDB Promoted Dairy FPOs (Pan-India)	Centralized milk aggregation infrastructure paired with local technical support desks.	Enhanced aggregate procurement volumes; elevated baseline milk quality; minimized local market uncertainty.
Goat Producer Companies (Maharashtra)	Weight-based pricing matrix; localized breed improvement programs.	Disrupted arbitrary pricing by traders; significantly reduced herd mortality rates
Poultry Contract Models (Multi-State)	FPO supplies chicks, feed, and meds; smallholder provides labor and housing.	insulates smallholders from commercial market crashes; guarantees stable income.
Dairy FPO-Like Networks (Maharashtra)	Widespread deployment of digital payment software and chilling infrastructure.	Drastically minimized post-harvest spoilage; accelerated payout transparency; stabilized household incomes.

7. Operational Challenges and Sustainability Bottlenecks

Despite their proven benefits, livestock FPOs encounter several operational constraints that limit long-term financial viability:

- **Management Capacity Deficits:** Many FPOs operate with weak corporate governance or lack professional management personnel proficient in complex agribusiness logistics.

- **Capital Inadequacy:** Insufficient initial equity, low capital reserves, and complex banking protocols limit an FPO's ability to fund large-scale cold-chain processing infrastructures.

- **Low Member Participation:** Fragmented, low-volume producers often remain hesitant to transition fully to collective marketing models, which reduces processing efficiency.

8. Policy Implications and Strategic Recommendations

To transform livestock FPOs from grant-supported entities into highly competitive, self-sustaining commercial enterprises, a multi-pronged policy strategy is required:

1. **Professionalization of Management:** Government programs should provide tapered financial subsidies specifically to help young FPOs recruit certified business managers and financial analysts during their first 3 to 5 operational years.

2. **Targeted Credit Instruments:** Financial institutions must simplify borrowing requirements by expanding credit guarantee funds and offering tailored working capital credit lines suited to livestock cycles.

3. **Public-Private Infrastructure Partnerships:** Strategic investments must prioritize funding rural cold-chain infrastructure—such as bulk milk chillers, climate-resilient animal housing, mobile vet vans, and feed processing mills.

4. **Digital Integration and E-Commerce Links:** Connecting FPOs directly to institutional buyers, retail grocery chains and electronic agricultural markets improves price transparency and cuts out unnecessary middlemen.

9. Conclusion

The livestock sector is vital for poverty reduction, income security, employment and rural economic growth in India. However, small-scale and fragmented production, limited access to finance, technology, veterinary services and markets continue to constrain its growth. Addressing these challenges requires a shift from subsistence-based farming toward more organized and market-oriented livestock production.

Farmer Producer Organizations (FPOs) can help smallholders, overcome these constraints by aggregating production, reducing costs, improving bargaining power and connecting farmers with better markets. Although challenges related to management, finance, and infrastructure remain, appropriate policy support, investment and capacity building can strengthen FPOs and promote a more sustainable and profitable livestock value chain.

References

Arahant, A., Nayak, D., Jindal, L., Batra, G., Dash, D. N., Kondasani, R. K. R., Hoor, A., & Prasad, S. (2025). Farmer Producer Organization: An Ecosystem for Building Socio-Economic Resilience of Farmers in India. Current Agriculture Research Journal, 13(1).

Bernard, T., & Spielman, D. (2009). Reaching the Rural Poor through Producer Organizations? Food Policy.

Bhunia, S., & Singh, P. K. (2025). Producer Organizations in the Last 25 Years: A Bibliometric Analysis and Meta-Review of the Literature. Humanities and Social Sciences Communications.

Birthal, P. S., & Negi, D. S. (2012). Livestock for Higher, Sustainable and Inclusive Agricultural Growth. Economic and Political Weekly.

Birthal, P. S., Joshi, P. K., & Gulati, A. (2005). Vertical Coordination in High-Value Food Commodities. Agricultural Economics Research Review.

Fischer, E., & Qaim, M. (2012). Linking Smallholders to Markets: Determinants and Impacts of Farmer Collective Action. World Development.

Hellin, J., Lundy, M., & Meijer, M. (2009). Farmer Organization, Collective Action and Market Access. Food Policy.

Kumar, A., Singh, K. M., & Parappurathu, S. (2018). Impact of Farmer Producer Organizations on Smallholder Farmers in India. Agricultural Economics Research Review.

Kumar, V., & Naik, V. (2026). Commercialising Indian Agriculture through Farmer-Producer Organizations: A Critical Review. Economic and Regional Studies.

Markelova, H., Meinzen-Dick, R., Hellin, J., & Dohrn, S. (2009). Collective Action for Smallholder Market Access. Food Policy.

Narrod, C., Roy, D., Okello, J., Avendaño, B., Rich, K., & Thorat, A. (2009). Public–Private Partnerships and Collective Action in Livestock Value Chains. Food Policy.

Nikam, V., Singh, P., Ashok, A., & Kumar, S. (2019). Farmer Producer Organisations: Innovative Institutions for Upliftment of Small Farmers. Indian Journal of Agricultural Sciences.

Patil, S., Mehta, M., Pancholi, G., & Saxena, A. (2025). Unveiling the Dynamics of Farmer Producer Organizations in India: A Systematic Review of Status, Challenges, and Future Directions. Humanities and Social Sciences Communications.

Singh, S. (2012). Producer Companies in India: Organization and Performance. Economic and Political Weekly.

Trebbin, A., & Hassler, M. (2012). Farmers' Producer Companies in India: A New Concept for Collective Action? Environment and Planning A, 44(2), 411–427.

