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A Comparison of the Policy Framework Regarding Farmer Coalitions among Selected Indian States

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Abstract

Farmer Coalitions (FC) include Cooperatives, Producer Companies (PCs) and Self-Help Groups (SHGs). This study aims to identify critical elements that affect these groups' ability to succeed and offers a methodical technique for evaluating state-level regulations. In order to obtain information, the study uses a qualitative research design that includes state policies, case studies, and literature reviews. We want to find common trends and best frameworks that can be applied in other regions by examining the policies that have been adopted in these states. The proposed diagnostic framework aims to provide policymakers with a comprehensive tool to assess existing policies, identify gaps, and create targeted interventions to enhance the agricultural sector. This research intends to support sustainable growth among farmers and contribute to the general improvement of state agriculture policies. Key trends identified after comparing the policies of states in devising an innovative policy framework for FPOs in Punjab. The major segments are financial support and educational institutes in developing marketing strategy.

Keywords: Development policy, Agriculture, Cooperatives, Agricultural policy

JEL Classification: O21, P32, Q13, Q18

Introduction

Coalitions, from the French word coalescere, refers to the establishment of alliances or partnerships between various individuals, groups, or organizations. These coalitions frequently entail collaboration, cooperation, and the pooling of resources and are created to pursue a common objective or address a shared interest. In many spheres, including politics, business, and social activity, coalitions exist and are important for influencing decision-making and fostering group action. (Encyclopedia of management, 2007)

Policy plays a crucial role in the development of these organizations. It is a decision that leads to an action or plan aimed at achieving a desired goal for the benefit of society. Policy assigns value to goals considered important by policymakers. Farmer Coalitions (FC) in this study includes Cooperatives, Self Help Groups (SHG) and Producer Companies (PC interchangeably FPOs i.e. Farmer Producer Organisations).

Cooperatives, as defined by Hueth and Marcoul (2006), are a form of coalition among farmers with similar objectives. Cooperatives are voluntarily organised group associations formed under Co-operative Credit Societies Act, 1904

(DAC, 2013). SHG is an informal small homogeneous group which consists of a maximum 20 members. The basic principles of the SHGs are women friendly loans, peer group pressure in repayment, skill training capacity building and empowerment (Lalitha and Nagaraja, 2002). SHGs are village-based organizations that focus on building the savings and credit, as well as the social empowerment, of their (mostly female) members (Chen *et al*, 2007). PCs are institutions that have all the significant features of private enterprise, while incorporating principles of mutual assistance in their mandate similar to cooperatives (Pustovoitova, 2011).

The concept of Farmer Producer Organizations (FPOs) was introduced in 2002, with the FPO National Policy established in 2013 under the Companies Act. Since 2018, the Indian government has actively supported FPOs through various policies aimed at their formation, development funding, and the creation of an online platform for information and resources. These initiatives include financial assistance, training, and capacity-building programs designed to promote the growth, sustainability, and improved livelihoods of farmers across India. FPOs, a type of Producer Organisation (PO), unite members who are farmers producing a range of products such as artisanal, agricultural, and nonfarm goods. Supported by the Small Farmers' Agribusiness

Consortium (SFAC), FPOs enable small and marginal farmers to strengthen their economic position and increase revenue by providing end-to-end services, including marketing, technical support, processing, and crop input management.

The success of cooperatives in India can be attributed to the supportive organizational infrastructure, as highlighted in the literature (Cornforth *et al*, 1988; Cornforth and Thomas, 1990; Morrison, 1991; Whyte and Whyte, 1991; Fairbairn *et al*, 1993; Harris *et al*, 1998). As compared to Punjab, FCs are performing better in other states. It has emerged into a novel shape with an increase in interest of farmers. There are not many success stories in Punjab as FCs remained defunct from the beginning (Singh and Singh, 2013)

The study conducted by Kumar et al in 2022 was based on a small sample of 22 FPOs from seven states, which may not be representative of the diversity and complexity of FPOs in India. The study also does not provide any comparative analysis of the performance and impact of FPOs across different regions, sectors, and models. There are many successful case studies in several Indian states like Maharashtra (MH), Uttar Pradesh (UP), Tamil Nadu (TN), Madhya Pradesh (MP), Gujarat, Karnataka, and Andhra Pradesh and have well-established and effectively run Farmer Producer Organisations. Various states like Maharashtra (MH), Uttar Pradesh (UP), Tamil Nadu (TN) and Madhya Pradesh (MP) were selected on the basis of higher number of Farmer Producer Organisations registered in this study to provide comparative analysis of the policy framework in context to Farmer Coalitions (FCs).

Issues and Challenges.

In Punjab, where approximately 63 per cent of the population resides in rural areas, agriculture is the backbone of the economy, employing 77 per cent of the workforce and contributing nearly 25 per cent to the State Domestic Product (Government of Punjab, 2020). Rice and wheat are the main crops, but sugarcane, vegetables, and fruits also play a significant role. Fragmentation of farmers is the major issue in the state.

Meanwhile FPO policy for Punjab already was introduced, which envisions becoming the leader of the

national market by covering FPOs already registered either under Company Act or under Society Registration Act 1980 or under Central and State Cooperative laws as well as new FPOs deemed to register. Punjab Agri Export Corporation Limited (PAGREXO) to function as State Nodal Agency (SNA) to partner with: Department of Agriculture and Cooperation (ii) Department of Horticulture (iii) Punjab Agro Industries Corporation. The state will provide assistance for awareness and creation of FPOs, diagnostic study and business plans, soft interventions (capacity building) and hard interventions (infrastructure/common facility centre). Direct tax subsidy as income tax exemptions shall be provided as per Government of India (GoI) norms up to 5 years for FPO with annual turnover of INR 100 crore and shall extend grant (both investment capital and working capital) to SNA (MOA FW, GOI 2024).

Various factors such as financial mechanisms, technical assistance, and sector support infrastructure in establishing the necessary mechanisms to effectively promote co-operative development. All the aforementioned tools can be established by public policy to more efficiently construct cooperative groups as per research conducted by Adeler 2014. Alho 2015, DuvaleixTréguer and Gaigné 2015 empirically reported that the effectiveness of members is influenced by both farm features and the type of POs. Accordingly, policies that impose a strict organizational/governance framework on publicly funded POs may lead to the formation of ineffective POs or the displacement of market-based forms of cooperation, which would lead to an ineffective allocation of public resources (Francesconi and Wouterse, 2015; Fakowski and Ciaian, 2016). A study conducted by Nikam et al in 2019 found that for success and sustenance of FPO weaknesses in organisational and group dynamics can be addressed by allowing regulation, ethics, professionalism and linkage formation. This research paper focused on reviewing and comparing the policy framework regarding Farmer Coalitions (FC) among selected Indian states.

Data Sources and Methodology

Desk review for qualitative and descriptive study of policies in the last 11 years (2013-2023) done using secondary data sources like published data, projects, journals, etc.

Table 1: Status of PCs in India

State	No. of PCs registered	No. of PCs promoted		Active PCs	Centre Sector Scheme CSS
	8 -	SFAC	NABARD		As on 30-06-2023
Maharashtra	1940	85	118	1877	172
Uttar Pradesh	750	34	113	690	492
Tamil Nadu	528	11	170	487	68
Madhya Pradesh	458	135	160	368	230

Source: Compiled by authors' up to 2023 (SFAC, 2013; NABARD, 2019; Neti et al, 2019; Govil et al, 2020; SFAC, 2023)

to address the research question: Which policy regime is working well in the formation and growth of Farmer Coalitions (FCs)?

For which various components of the policy during the pre-formation and post-formation stages of FC studied with focus particularly to the promotion of FPCs. Therefore, the data related to financial assistance, handholding, capacity building, etc. studied and compared to draw out the lessons for giving recommendations for developing a similar policy framework for Punjab.

This study focuses on comparing the support drivers of successful FPOs in four states (Maharashtra, Uttar Pradesh, Tamil Nadu and Madhya Pradesh), with an emphasis on institutional, financial and technical support through subjective analysis (Table 1). According to the National FPO Policy, financial assistance is provided to farmers individually or as a group for institution building or capacity building. The Equity Grant Scheme supports the equity base of Farmer Producer Companies (FPCs) by providing matching equity grants. The amount of financial assistance varies depending on the activity and location of the FPO.

Several Indian states have productive FPOs, with Maharashtra, Uttar Pradesh, Tamil Nadu, Madhya Pradesh, Gujarat, Karnataka, and Andhra Pradesh being wellestablished and effectively run. These states have implemented supporting regulations, offered training and capacity-building programs, and facilitated market connections to enhance the effectiveness of FPOs. It is important to note that FPO effectiveness can vary across states, and there may be other states with successful FPOs as well. Each state has its own unique policies and initiatives based on their specific needs and priorities. Maharashtra focuses on industrial growth and infrastructure development, Tamil Nadu emphasizes social welfare schemes and education, while Uttar Pradesh prioritizes agriculture and rural development.

FPOs have emerged as a significant institutional mechanism to address the challenges faced by farmers in India. These organizations enable small and marginal farmers to aggregate their produce, access better markets, and benefit from economies of scale. Recognizing their potential, several Indian states have formulated policies to promote FPOs. This paper aims to compare and evaluate these state policies segment-wise, to identify key trends and variations.

Results and Discussion

The policy framework for FPO's of various states have been evaluated through vision of the policy legal structure financial incentives, capacity building, marketing support inforastructure development social inclusivity measure, and support for technology adoption.

Vision of the policy: To build a prosperous and sustainable agriculture sector by promoting and supporting member-owned Producer Organisations as per National policy on Farmer Producer Organisations (FPOs) (Table 2).

Table 2: Comparing Vision of the policy

State/National Policy	Key Focus/Approach	Implementation Highlights	Notable Outcomes/Support Mechanisms
Maharashtra	Organize farmers into producer companies for better marketing, price realization	Direct market licenses, storage/transport subsidies, priority in markets, strong institutional support	Farm profits ↑45%, input costs ↓7%, price ↑22%
Uttar Pradesh	Direct linkages with aggregators and food processors; unique market convergences	Policy to facilitate direct sales and partnerships with industry	Enhanced market access, focus on industry linkages
Tamil Nadu	Commodity groups for enterprise development; value chain integration	Focus on linking farmers to value chains, promoting business and enterprise growth	Pathways for value addition, improved market access
Madhya Pradesh	Cluster-level collectivization; market/service linkages	Aggregation at state/ FPO level, focus on both backward and forward market linkages	Strengthened bargaining, resource pooling
National Policy on FPOs	Promote member-owned FPOs for sustainable agriculture; support value addition	Horizontal/vertical FPO growth, direct marketing, policy uniformity	Financial assistance, equity grants, credit guarantee

Additionally, the Formation and Promotion of 10,000 FPOs Scheme, launched by the Government of India, aims to establish 10,000 FPOs nationwide with a budgetary provision of Rs. 6,865 crore (Government of India, 2022). This scheme includes financial assistance of up to Rs. 18 lakh per FPO for three years and matching equity grants to strengthen the economic viability of these organizations (Government of India, 2022). The Maharashtra state policy focuses on organising farmers by forming a producer company that can offer them better marketing alternatives with an enhanced price. To establish direct linkages with aggregators and food processing firms and form unique convergences to market their produce as per Uttar Pradesh. FPOs, commodity groups are functioning with the focus on enterprise development "Pathways to link farmers to value chain" as stated by Tamil Nadu. Madhya Pradesh: Collectivize small and marginal farmers into the cluster level organization and ensure backward and forward linkages with the market and various related services.

Registration and Legal Frameworks: The second segment examines the policies related to the registration and legal frameworks for FPOs in different states. While some states have established dedicated FPO Acts, others rely on existing cooperative society laws (Table 3).

In Maharashtra, FPOs are registered under the Maharashtra State Co-operative Societies Act, 1960. They can choose to register as a Producer Company under the Companies Act, 2013, or as a Co-operative Society. The registration process involves submitting an application with necessary documents to the concerned Registrar of Co-operative Societies or Registrar of Companies.

In Uttar Pradesh, FPOs can register as a Co-operative Society under the Uttar Pradesh Co-operative Societies

Act, 1965. The registration process involves submitting an application along with required documents to the Registrar of Co-operative Societies.

In Tamil Nadu, FPOs are provisioned to register as a Co-operative Society under the Tamil Nadu Co-operative Societies Act, 1983. An application must be submitted to the Registrar of Co-operative Societies together with the necessary documentation in order to register.

FPOs in Madhya Pradesh, register as a Producer Company under the Companies Act, 2013. The registration process includes submitting an application to the Registrar of Companies, along with the necessary documents.

The analysis reveals that states with dedicated FPO Acts generally provide more clarity and flexibility in terms of registration, membership, and governance structure. However, the effectiveness of these policies also depends on implementation and support mechanisms available.

Financial Support: The third segment focuses on the financial support offered by different states to promote FPOs. This includes initiatives such as capital infusion, credit availability, interest subsidies, and grants (Table 4).

In 2005 Maharashtra State Agricultural Marketing Board (MSAMB) launched the "Farmer Producer Company Promotion Scheme" to provide financial support and technical assistance for FPO formation. The state also has specific policies to encourage the formation of FPOs in sectors like horticulture, dairy, and fisheries. FPOs can avail financial support from various government schemes and programs. Some of the key schemes include the Agriculture and Allied Activities Scheme, Maharashtra State Rural Livelihood Mission, and the Maharashtra State Cooperative Development Corporation. To further support FPOs, credit guarantee

Table 3: Comparing FPO Legal Structures Across States

State	Legal Framework for FPO Registration	Registration options	Application authority	Key features
Maharashtra	Maharashtra State Cooperative Societies Act, 1960; Companies Act, 2013	Co-operative Society; Producer Company	Registrar of Co-operative Societies / Registrar of Companies	Choice of legal form; clear procedures; flexibility in governance
Uttar Pradesh	Uttar Pradesh Co- operative Societies Act, 1965	Co-operative Society	Registrar of Co-operative Societies	State-specific cooperative act; standard documentation
Tamil Nadu	Tamil Nadu Co- operative Societies Act, 1983	Co-operative Society	Registrar of Co-operative Societies	State-specific cooperative act; standard documentation
Madhya Pradesh	Companies Act, 2013	Producer Company	Registrar of Companies	National-level legislation; corporate structure; limited liability and tax benefits

facilities have been introduced, allowing up to Rs. 2 crore per FPO from eligible lending institutions (Ministry of Agriculture, 2023). This financial backing facilitates easier access to institutional credit, enabling FPOs to enhance their operations and market activities. Moreover, states like Maharashtra have implemented various incentives such as discounts on storage charges for agricultural produce and free direct market licenses for FPOs, which help reduce operational costs and improve market access (Maharashtra Government, 2022). These schemes provide assistance in the form of grants, subsidies, credit facilities, and capacity building programs.

FPOs in Uttar Pradesh can access financial support through schemes such as the Uttar Pradesh Farmers Producer Organizations Support Scheme. This scheme aims to provide financial assistance in the form of capital grants, interest subsidies, and support for infrastructure development.

In Madhya Pradesh, FPOs can benefit from the Madhya Pradesh State Rural Livelihood Mission. This mission offers financial support for the promotion and development of FPOs, including grants for infrastructure, equipment, and working capital requirements.

In Tamil Nadu, FPOs can receive financial support through various schemes such as the Tamil Nadu Cooperative Milk Producers Federation Limited and the Tamil Nadu State Agricultural Marketing Board. These schemes provide financial assistance, technical support, and market linkages to FPOs. The state government offers interest-free loans to FPOs for working capital and investments in technology.

While most states provide financial support, variations

exist in terms of the quantum of funds, ease of access, and repayment conditions. States that ensure timely disbursement, simplify loan procedures, and offer interest subsidies tend to have more successful FPOs, as they address the critical issue of capital availability.

Capacity Building: Capacity building is crucial for the effective functioning of FPOs. The fourth segment examines the policies of different states regarding training, technical assistance, and skill development for FPO members (Table 5). Training and capacity-building initiatives led by organizations such as the Small Farmers Agribusiness Consortium (SFAC) provide essential technical support to FPOs (SFAC, 2023). These efforts enhance the ability of FPO members to engage effectively in value chains that include input supply and marketing. Collaborative initiatives are also noteworthy; for instance, organizations like Samunnati work towards creating dialogues with the Ministry of Agriculture for regulatory alignment and standardization across regions, streamlining operations for FPOs (Samunnati, 2023).

In 2018 the Maharashtra state government initiated the "Farmer Producer Companies Development and Strengthening Program" to enhance the capacity and functioning of existing FPOs. Different agencies provide assistance in terms of training programs, capacity building workshops, exposure visits, market linkages, and financial support for infrastructure development.

Uttar Pradesh supports FPOs through the Uttar Pradesh FPO Support Scheme. This scheme provides financial assistance for infrastructure development, working capital requirements, and market linkages. It also focuses on capacity building initiatives such as training programs, workshops,

Table 4: Comparative State Financial Incentives for FPO Development

State/Central Scheme	Key Financial Support Mechanisms	Notable Schemes/Initiatives	Key features
Maharashtra	Grants, subsidies, credit, capacity building, matching grants	Farmer Producer Company Promotion Scheme, MAGNET, Maharashtra State Rural Livelihood Mission	Sector-specific incentives, matching grant up to 60% or Rs. 6 crore for post-harvest infrastructure
Uttar Pradesh	Capital grants, interest subsidies, infrastructure support	UP Farmers Producer Organizations Support Scheme	Focus on infrastructure and subsidized credit
Tamil Nadu	Financial aid, technical support, interest-free loans, market linkages	TN Cooperative Milk Producers Federation, TN State Agricultural Marketing Board	Interest-free loans for working capital and technology, strong market linkage support
Madhya Pradesh	Grants for infra, equipment, working capital	MP State Rural Livelihood Mission	Emphasis on infrastructure and working capital
Central Government	Grants up to Rs. 18 lakh, matching equity up to Rs. 15 lakh, credit guarantee up to Rs. 2 crore	Central Sector Scheme for Formation and Promotion of 10,000 FPOs, Agriculture Infrastructure Fund	5-year handholding, credit guarantee fund, e-NAM onboarding, interest subvention, cluster approach

skill development, and exposure visits.

FPOs in Madhya Pradesh can benefit from capacity building initiatives offered by the Madhya Pradesh State Rural Livelihood Mission. These initiatives include training programs on various aspects such as management, leadership, bookkeeping, marketing, and value addition. Training sessions were conducted for the functionaries of MBCFPCL and the Board of Directors (BoDs) of its member FPOs, focusing on governance, accounting systems, inventory management, and business management. One Inter-state and two within state exposure visits organized for the BoDs and functionaries of the member FPOs.

FPOs in Tamil Nadu can avail capacity building support through the Tamil Nadu Agricultural University (TNAU), Tamil Nadu Cooperative Milk Producers Federation Limited, and other institutions. These programs provide training on agricultural practices, processing techniques, quality control, packaging, and marketing strategies.

States that invest in comprehensive capacity-building programs, covering aspects such as entrepreneurship, market linkages, and modern agricultural practices, tend to empower FPOs and enhance their sustainability.

Marketing and Market Linkages: The fifth segment focuses on the policies aimed at facilitating marketing and market linkages for FPOs (Table 6). This includes initiatives

such as establishing market infrastructure, creating market linkages with buyers, and providing market intelligence. Several initiatives have been implemented to enhance market access for Farmer Producer Organizations (FPOs) in India. One notable initiative is the Open Network for Digital Commerce (ONDC), which has registered approximately 5,000 FPOs, enabling them to sell their produce directly to consumers online (Government of India, 2023). This initiative empowers FPOs by providing access to digital marketing, online payments, and business-to-consumer transactions, thereby significantly expanding their market reach.

Maharashtra supports FPOs through various schemes and agencies. The Maharashtra State Cooperative Marketing Federation (MSCMF) assists in marketing agricultural produce and provides market linkages for FPOs. Additionally, the Maharashtra State Rural Livelihood Mission promotes market-oriented agriculture and facilitates market linkages for FPOs.

Uttar Pradesh offers policy support through the Uttar Pradesh Farmers Producer Organizations Support Scheme. This scheme focuses on creating market linkages for FPOs by connecting them with government agencies, private companies, and retail chains. It also encourages FPOs to develop value-added products and supports their participation in trade fairs and exhibitions.

In Madhya Pradesh, the Madhya Pradesh State

Table 5: State Initiatives in FPO Capacity Building

State	Key Capacity Building Initiatives	Training Focus Areas	Delivery Mechanisms/ Partners	Key features
Maharashtra	Farmer Producer Companies Development and Strengthening Program	Training, workshops, exposure visits, market linkages, infrastructure	MSAMB, MACP, NABARD, ADB, SFAC, CAIM	Priority for FPOs in agri schemes, sector- specific support
Uttar Pradesh	Uttar Pradesh FPO Support Scheme	Training, skill development, exposure visits, market linkages	State Agriculture Dept., CBBOs, NGOs	Emphasis on infrastructure, working capital, and linkages
Tamil Nadu	TNAU, Cooperative Milk Producers Federation, Agri Marketing Board	Agricultural practices, processing, quality, packaging, marketing	TNAU, State Marketing Board, sectoral federations	Interest-free loans for FPOs, strong technical support
Madhya Pradesh	MP State Rural Livelihood Mission	Management, leadership, bookkeeping, marketing, value addition, exposure	State Rural Livelihood Mission, CBBOs	Focus on BoD/CEO training, governance, and business skills
National	NAFPO, MANAGE, Central FPO Scheme	Modular training: business planning, governance, compliance, entrepreneurship, market linkages	MANAGE, NAFPO, SFAC, NABARD, CBBOs, NGOs	12-day modular curriculum, 5-year handholding, equity grants

State	Key Marketing Support Mechanisms	Implementation	Key features
Maharashtra	MSCMF, MSAMB, MahaFPC, Rural Livelihood Mission	Market linkages, direct sales, procurement programs, farmers' markets, branding support	Farm profits ↑45%, price realization ↑22%, input costs ↓7%
Uttar Pradesh	Uttar Pradesh FPO Support Scheme	Connects FPOs with agencies/ retailers, value addition, trade fair participation	Encourages branding, product development, expanded market access
Tamil Nadu	State Agri Marketing Board, AAVIN, Cooperative Milk Producers	Market promotion, grading, branding, direct marketing, trade fairs	Strong dairy sector linkages, support for processed products
Madhya Pradesh	MARKFED, direct buyer engagement	Branding, packaging, quality certification, direct links to processors/exporters	Focus on quality, direct sales, and value addition
National	eNAM, PM-AASHA, ODOP	Online market access, MSP procurement, product promotion by district	Transparent pricing, reduced intermediaries, market expansion

Table 6: Comparative Analysis of FPO Marketing Support

Cooperative Marketing Federation (MARKFED) plays a crucial role in facilitating marketing and market linkages for FPOs. MARKFED assists FPOs in selling their produce and provides support for branding, packaging, and quality certification. The state government also encourages FPOs to directly engage with buyers, processors, and exporters.

Tamil Nadu supports FPOs through initiatives like the Tamil Nadu State Agricultural Marketing Board, which helps in market promotion, grading, and branding of FPO produce. The Tamil Nadu Cooperative Milk Producers Federation Limited assists FPOs in marketing milk and milk products. AAVIN is the brand name for marketing milk and milk products. The state government also encourages direct marketing initiatives and provides access to markets through exhibitions and trade fairs.

States that have robust policies in this segment often create dedicated market platforms, promote direct farmer-buyer interactions, and establish value chain linkages. These policies help FPOs access better prices, reduce post-harvest losses, and improve the overall profitability of farmers.

Infrastructure Development: The sixth segment examines the policies related to infrastructure development for FPOs, including storage facilities, processing units, cold chains, and transportation (Table 7).

The Maharashtra government provides policy support through the Maharashtra State Cooperative Department and the Maharashtra State Rural Livelihood Mission. They offer financial assistance and subsidies for infrastructure development, including setting up collection centers, storage facilities, processing units, and marketing infrastructure. FPOs can avail loans, grants, and subsidies for building

their infrastructure.

Uttar Pradesh supports FPOs' infrastructure development through the Uttar Pradesh FPO Support Scheme. The scheme provides financial assistance for establishing infrastructure such as collection centers, warehouses, processing units, and cold storage facilities. FPOs can access grants, subsidies, and low-interest loans for infrastructure development.

Madhya Pradesh facilitates infrastructure development for FPOs through the Madhya Pradesh State Rural Livelihood Mission. They offer financial support, grants, and subsidies to establish infrastructure like collection centers, storage facilities, processing units, and market linkages. FPOs can also receive technical assistance and guidance for infrastructure planning and implementation.

Tamil Nadu supports FPOs' infrastructure development through various schemes and organizations. The Tamil Nadu Agricultural University (TNAU) provides technical support and guidance for setting up infrastructure. The Tamil Nadu Cooperative Milk Producers Federation Limited assists in establishing milk processing units and chilling centers. The state government also offers subsidies, grants, and credit facilities for infrastructure development. The Tamil Nadu Agricultural Marketing Board provides financial assistance to FPOs for setting up processing units, cold storage facilities, and marketing infrastructure.

States that prioritize infrastructure development often provide financial assistance, subsidies, and technical support to upgrade and create necessary infrastructure. Access to quality infrastructure enhances the ability of FPOs to add value to their produce and ensures seamless supply chain operations.

Table 7: Comparing state approaches for FPO Infrastructure

State	Infrastructure Support Provided	Financial Mechanisms & Subsidies	Key features
Maharashtra	Collection centers, storage, processing, marketing infrastructure	Grants, loans, 50% storage discount, 50% transport subsidy, priority market access	Technical guidance, sector- specific schemes, PPP-IAD for modern storage
Uttar Pradesh	Warehouses, collection centers, processing, cold storage	Grants, subsidies, low-interest loans	FPO Support Scheme, focus on value chain infrastructure
Tamil Nadu	Processing units, cold storage, marketing infrastructure	Subsidies, grants, credit, technical support	TNAU, Dairy Federation, Agri Marketing Board, support for dairy/processing
Madhya Pradesh	Collection centers, storage, processing, market linkages	Grants, subsidies, technical assistance	State Rural Livelihood Mission, support for planning and implementation
National	Storage, cold chain, processing, marketing, digital infra	AIF (3% interest subvention, Rs. 2 crore/project), ISAM, PMFME (35% grant), credit guarantee	eNAM integration, Digital Public Infrastructure, cluster and commodity focus

Inclusive Approach: The last segment evaluates the inclusivity of state policies towards FPOs. This includes the extent to which policies consider the needs of small and marginal farmers, women farmers, and marginalized communities (Table 8).

Maharashtra promotes inclusivity through policies that encourage the participation of marginalized and disadvantaged groups in FPOs. The Maharashtra State Cooperative Department and the Maharashtra State Rural Livelihood Mission provide support and financial assistance to promote the formation of FPOs among marginalized communities, including women, small and marginal farmers, tribal communities, and socially backward groups by introducing farmer clubs and village-level meetings to

ensure inclusive decision-making processes.

Uttar Pradesh focuses on inclusivity by ensuring the participation of small and marginal farmers, women, and socially disadvantaged groups in FPOs. The Uttar Pradesh FPO Support Scheme provides special provisions and incentives for these groups, including capacity building programs, financial assistance, and representation in decision-making processes. The state has supported marginalized communities through organizations like the Uttar Pradesh State Cooperative Union (UPSCU).

Tamil Nadu has initiated programs to promote FPOs in sectors like poultry, floriculture, and medicinal plants cultivation. The state government has launched programs like the Tamil Nadu Women Farmers' Empowerment Scheme

Table 8: State Wise Inclusivity Measures for FPO Participation

State	Target groups for Inclusion	Key Inclusivity measures	Key features
Maharashtra	Small/marginal farmers, women, SC/ST, OBC, minorities, landless	Targeted mobilization, financial support, village-level meetings, leadership training	MSRLM intensive inclusion, sector convergence, ultrapoor coverage
Uttar Pradesh	Small/marginal farmers, women, disadvantaged groups	Special incentives, capacity- building, representation in FPOs, support via UPSCU	Dedicated FPO Support Scheme, trade union support
Tamil Nadu	Women, small/marginal farmers, sectoral minorities	Women-focused schemes, sectoral programs, leadership training	Women Farmers' Empowerment Scheme, non-traditional sectors
Madhya Pradesh	Women, tribal, smallholder farmers	WFPOs, targeted training, financial support, gender equity focus	Women-centric FPOs, tribal inclusion, holistic support
National	Small/marginal farmers, women, SC/ST, vulnerable groups	Mandated inclusion, democratic governance, benefit-sharing, capacity-building	10,000 FPOs scheme, e-NAM integration, leadership reservation

Table 9: Cor	nnaring State	Support for	r FPO T	Technology Adoption

State	Digital/Tech Support Focus	Key Initiatives & Platforms	Outcomes
Maharashtra	Precision agriculture, AI, IoT, climate resilience, digital farm management	PoCRA, AI pilots, targeted outreach, digital adoption programs	High digital adoption
Uttar Pradesh	Digital tools, e-commerce, direct customer links	ONDC onboarding, digital recordkeeping, online sales, digital payments	Expanded market access
Tamil Nadu	Focused tech support, digital recordkeeping, market intelligence	TNSFAC, LMS, MIS, digital credit access, e-trade	Digital learning, credit inclusion
Madhya Pradesh	IT-based FPO management, digital market access	Digital adoption in recordkeeping, member management, online sales	Enhanced transparency, governance, credit access for smallholders
National	Digital market platforms, e-learning, MIS, e-commerce	ONDC, eNAM, LMS, SFAC MIS, digital onboarding	Over 8,600 FPOs on ONDC, 4,600+ on LMS, 33 lakh farmer members

to empower women farmers and promote their inclusion in FPOs.

In Madhya Pradesh, inclusivity is a key aspect of FPO policies. The Madhya Pradesh State Rural Livelihood Mission supports the formation and development of FPOs by emphasizing the participation of women, tribal communities, and smallholder farmers. The mission provides training programs, financial support. The state has taken progressive steps to promote gender equity in FPOs. They have established women-centric FPOs like Women Farmer

Producer Organizations (WFPOs) to empower them and enhance their participation in agricultural activities.

States that prioritize inclusivity often have provisions for reservations in FPO leadership positions, targeted support for vulnerable groups, and tailored capacity-building programs. A strong focus on inclusivity ensures that the benefits of FPOs reach all sections of society and contribute to equitable agricultural development.

Technological support

Maharashtra, which is a leader in precision agricultural

Table 10: Stae-wise advantages and disadvantages of FPOs adoption

State	Advantages	Disadvantages
Maharashtra	 Largest number of FPOs in India, robust ecosystem Early adopter of precision agriculture and digital tools Sector-specific support (horticulture, dairy, fisheries) Strong state-level schemes and financial support Inclusive policies for marginalized groups 	 Many FPOs remain small in membership and capital Limited state-specific FPO policy Implementation gaps in scaling up digital adoption and market linkages
Uttar Pradesh	 Rapid growth in FPO formation, exclusive FPO policy Digital platform for FPOs Focus on market linkages and e-commerce Special incentives for small/marginal/women farmers 	 Late starter in FPO ecosystem Many FPOs have low working capital and struggle with sustainability Capacity constraints in technical and managerial skills
Tamil Nadu	High proportion of large FPOs and older FPOs - Sectoral focus (floriculture, poultry, medicinal plants) - Strong technical support from institutions - Women-focused schemes	Many FPOs are capital-constrained - Regional disparities in FPO performance - Challenges in scaling up market access and infrastructure uniformly
Madhya Pradesh	 Significant share of older, stable FPOs State Rural Livelihood Mission supports inclusivity Emphasis on IT-based management and direct market access Progressive gender equity initiatives 	 Most FPOs have small/medium membership and low capital Market access and infrastructure support still evolving Limited sectoral diversification

Table 11: FPO Policy recommendations for Punjab

S. No.	Key Challenges	Description	Impact on FPOs
1	Limited Access to Finance	FPOs often struggle to secure adequate funding and financial support for operations and ESG initiatives.	Restricts investment in necessary infrastructure and resources, limiting growth and sustainability
2	Lack of Awareness of ESG Principles	Many farmers within FPOs lack understanding of ESG practices, hindering effective implementation.	Reduces the effectiveness of ESG initiatives and limits potential benefits for members.
3	Weak Governance Structures	Poor governance and decision-making processes can lead to inefficiencies and conflicts within FPOs.	Erodes trust among members and diminishes overall organizational effectiveness.
4	Marketing Challenges	Difficulty in establishing strong market linkages can limit the sale of produce and realization of fair prices.	Affects income stability for farmers and reduces the competitive edge of FPOs in the market.
5	Regulatory Compliance Issues	Navigating complex regulations can be challenging, leading to potential non-compliance with ESG standards.	May result in penalties or loss of credibility, impacting member trust and operational viability.
6	Insufficient Infrastructure	Lack of storage, processing, and transportation facilities hampers effective operations and market access.	Limits the ability to handle produce efficiently, affecting quality and profitability for farmers.
7	Inconsistent Government Support	Variability in government policies and support can create uncertainty for FPOs regarding funding and resources.	Impacts long-term planning and sustainability efforts within FPOs.

technologies, encourages inclusivity by enacting laws that make it easier for underprivileged and marginalized groups to participate in FPOs (Table 9). Uttar Pradesh promotes the use of digital tools and e-commerce platforms to increase market reach and foster direct customer relationships. Using focused technology support, the Tamil Nadu government and its agricultural institutions actively aid Farmer Producer Organizations (FPOs). One important component of FPO regulations in Madhya Pradesh is promoting the use of IT-based solutions for FPO management and market access inclusion.

Based on the above parameters a diagnostic framework with most important parameters has been devised for different types of FPO structures, such as Producer Companies, Cooperatives, and Self-Help Groups, to cater to the diverse needs of farmers. The policy emphasizes the need for flexibility and encourages innovation in governance structures to suit local contexts and member preferences.

Conclusions and Policy Implications

A comparative examination of Maharashtra, Uttar Pradesh, Tamil Nadu, and Madhya Pradesh demonstrates that, although FPOs in these states are united by the aim of uplifting small and marginal farmers through collective organization, their outcomes are shaped by varying policy frameworks and local conditions. Maharashtra is notable

for its proactive implementation of precision agriculture technologies, digital platforms, and inclusive strategies, which have cultivated a vibrant FPO environment and encouraged the involvement of underrepresented groups. Nevertheless, many FPOs in Maharashtra continue to face obstacles related to limited membership size, insufficient capital, and difficulties in expanding digital and market infrastructure (Table 10).

In Uttar Pradesh, the introduction of specialized FPO policies and the use of digital tools to enhance market connectivity have marked significant advancements. However, challenges remain in terms of long-term sustainability and managerial expertise among FPOs, pointing to an ongoing need for robust capacity building and institutional support. Tamil Nadu's approach, characterized by a focus on specific sectors such as floriculture, poultry, and women-centric enterprises, along with strong institutional partnerships, has led to the emergence of larger and more resilient FPOs. Despite these gains, disparities across regions and issues with access to capital still present hurdles. Madhya Pradesh is distinguished by its emphasis on inclusivity and the integration of IT solutions in FPO management, facilitated by the State Rural Livelihood Mission and gender-focused policies. Yet, most FPOs in the state are still relatively small and continue to grapple with evolving infrastructure and market access.

Furthermore, market linkage programs facilitated by the National Cooperative Development Corporation (NCDC) collaborate with various state governments to enhance market access through cooperative structures (NCDC, 2023). The promotion of "One District One Product" clusters is another strategic approach that aims to leverage economies of scale while improving processing, marketing, branding, and export opportunities for FPO members (Government of India, 2022). Persistent issues such as limited funding, inconsistent infrastructure, and the ongoing need for technical and managerial skill development remain. Consequently, it is recommended that policy efforts should reinforce the institutional and financial base of FPOs, while also advancing inclusivity, digital transformation, and continuous capacity enhancement to fully harness the transformative potential of FPOs within Indian agriculture.

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