

## Original Research Article

### Evaluating the Impact of Socio-Economic Status on the Economic Performance of Farmer Producer Companies in the Southern Districts of Tamil Nadu

**Comment [N1]:** Kindly rewrite the title as given in assessment form.

#### ABSTRACT

Farmer Producer Companies (FPCs) have become an important model for improving the socio-economic status and economic performance of small and marginal farmers in India, particularly in southern districts like Virudhunagar and Theni in Tamil Nadu. This study explores the role of FPCs in empowering farmers by enhancing market access, improving bargaining power, and reducing input costs. The research involved seven FPCs and a sample of 140 members, focusing on demographic factors, income levels, farm size, and governance structures. The analysis revealed that FPCs predominantly consist of female members, with an average age of 44. Most members saw increased incomes after joining FPCs. Additionally, the SWOT analysis identified strengths like better market access and weaknesses such as limited processing facilities, posing operational challenges. FPCs showed promise in transforming agriculture, notably through improvements in millet cultivation. For instance, FPC interventions led to a 20% increase in millet yields. The findings offer valuable insights into potential strategies for strengthening FPCs in Tamil Nadu, such as enhancing cooperative marketing initiatives and investing in infrastructure for value addition to agricultural products.

**Comment [N2]:** Kindly rewrite as "The study"

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*Keywords: Farmer Producer Companies, Socio-economic status, Economic performance, SWOT analysis*

#### INTRODUCTION

Agriculture is a crucial sector in the Indian economy, with over 85 percent of small farmers owning an average land size of 1.01 hectares[13]. However, only 47 percent of the total cultivated area is owned by them. About 54.60 percent of the Indian population relies on agriculture, which plays a significant role in reducing poverty and providing employment and food security to the majority of people. Agriculture contributed 17 percent to the GDP,

**Comment [N4]:** 85.00 per cent

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**Comment [N6]:** 47.00 per cent

**Comment [N7]:** Kindly make the decimals visible and take care about "per cent" and "percentage".

**Comment [N8]:** 47.00 per cent

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2) Write the full form of GDP

ensuring sustainable production. To double farmers' income, the Government of India has been promoting farmer collectives through farmer cooperatives, farmer interest groups, farmer producer companies, and commodity-based organizations[9,6].

**Comment [N10]:** Write (GOI) abbreviation and mention the abbreviations at the end of the manuscript, strictly according to the rules

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**Comment [N12]:** Write abbreviation FPCFPC

In 2000, the Indian government established a committee under the chairmanship of Prof. Y. K. Alagh to promote the concept of producer companies, aiming to improve support for primary producers. In 2002, the Indian government amended the Companies Act, 1956, creating "Part IX A" for "Producer Companies," which were established based on mutual aid principles and patronage to integrate the best aspects of cooperatives and corporate sectors for the benefits of primary producers, especially small and marginal farmers. These companies were considered one of the best strategies for addressing various challenges in agriculture [1,12,7,4].

**Comment [N13]:** Write –GOI in 2000 established...

**Comment [N14]:** Producer Company (PC)- add the abbreviation. Kindly check whether the concept promoted there was Producer Companies or Producer Organizations (PO). Later explain the Producer Organization with its definition and also the difference between PO and PC in one sentence.

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**Comment [N16]:** What are the challenges faced by the small and marginal farmers??? Explain that in the first paragraph as the third sentence.

Farmer Producer Companies (FPCs) have emerged as a promising model for empowering smallholder farmers in India, particularly in the cultivation of climate-resilient crops such as millet. These companies aim to address the challenges faced by small and marginal farmers by facilitating collective action, improving market access, and enhancing bargaining power [8]. However, the effectiveness and sustainability of FPCs in the context of millet cultivation remain understudied.

**Comment [N17]:** Reference is mandatory because the objective of FPO is not particularly for climate resilient crops.

**Comment [N18]:** Kindly add a suitable reference.

Farmer Producer Companies (FPCs) are membership-based organizations with elected leaders accountable to their constituents, enabling farmers to work together on various issues like loans, input sourcing, farm technology, and post-harvest handling [5]. FPC programs aim to support small and marginal farmers, foster collaboration, ensure fairness, and deliver quality products to consumers. However, only 10-15 percent of FPCs have 1000 or more members, and nearly 60 percent of them have 500 or fewer members. The sanctioned capital for more than half of all FPCs was less than Rs. 1.0 lakh [10].

**Comment [N19]:** This definition sentence should be added to the third paragraph.

**Comment [N20]:** Kindly add the reference as it is about the statistical data.

Farmer Producer Companies involve groups of members, with the majority consisting of small and marginal farmers, accounting for approximately 70-80 percent. In India, FPCs are promoted by entities such as NABARD, SFAC, NGOs, and other companies to facilitate their growth and sustainability. Currently, 8,425 FPCs are operating in India, focusing on helping farmers transition from watershed and wadi programs[11,14].

**Comment [N21]:** Add decimals and write per cent in a proper manner.

**Comment [N22]:** Write full form for NABARD, SFAC and NGO and mention how they help in growth and sustainability as a continuation of the sentence.

Millets, known for their nutritional value and ability to thrive in adverse climatic conditions, have gained renewed interest in recent years due to their potential to address food security and climate change concerns. As such, understanding the role of FPCs in promoting millet

cultivation and supporting millet farmers is crucial for developing sustainable agricultural practices and improving rural livelihoods.

**Comment [N23]:** It is bit confusing that why the paper is deviating to millets. If the study is focusing on millet based FPOs, mention it in the title, objective and sampling.

Farmer Producer Companies have emerged as a promising model for improving the socio-economic status and economic performance of small and marginal farmers in India [3]. These collective organizations aim to enhance the bargaining power of farmers, reduce input costs, and provide better access to markets [2,3]. This study examines the socio-economic status and economic performance of Farmer Producer Companies in the southern districts of Tamil Nadu, a region known for its agricultural diversity and challenges faced by small-scale farmers.

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## 2. MATERIALS AND METHODS

### 2.1 Study area

The study focuses on Farmer Producer Companies (FPCs) in Tamil Nadu, with Virudhunagar and Theni districts purposefully selected as the study areas. In Virudhunagar district, the blocks of Kariapatti, Narikudi, and Tiruchuli were chosen, while in Theni district, the blocks of Bodinayakanur, Chinnamanur, Periyakulam, and Andipatti were selected.

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**Comment [N26]:** Kindly write the proper sampling technique and its reason for the selection of the blocks.

### 2.2 Collection of Data

Seven companies were randomly selected based on authorized share capital. In Virudhunagar, four FPCs were selected: Seeds FPCL, Kariapatti Millet FPCL, Valarchi FPCL, and Ramanar Millets FPCL. In Theni, three FPCs were selected: Mazhaithuli Livestock FPCL, Mullaiyaru FPCL, and Meghamalai Collective FPCL. A total sample of 140 FPC members was selected for statistical analysis.

**Comment [N27]:** Kindly mention the research design used for the study, whether it is ex post facto or exploratory or any else.

**Comment [N28]:** Don't use abbreviations while writing the name of the FPC.

## 3. ANALYTICAL PROCEDURE

### 3.1 Frequencies and Percentage Analysis

The characteristics of sample members of FPC households, such as age, education, occupational status, farming experience, social participation, and training, were assessed using frequencies and percentage analysis.

**Comment [N29]:** Write the number of members selected from each FPC and write the sampling technique for the selection of members.

**Comment [N30]:** CHANGE THE TITLE ACCORDING TO AUTHOR GUIDELINES

**Comment [N31]:** Use the term 'socio economic characteristics'

**Comment [N32]:** Use the term 'selected' instead of 'sample'

**Comment [N33]:** Write the operational definition of the variables selected.

### 3.2 Performance Analysis

SWOT analysis is used to identify internal strengths, weaknesses, external opportunities, and threats, gather feedback, and explore future goals, strategies, and potential obstacles.

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## 4. Result and Discussion

### 4.1 Socio-Economic Status of Farmer Producer Companies (FPCs)

The age distribution of the members shows that 19.29 percent are up to 30 years old, 27.86 percent are between 31-40 years, 21.43 percent fall within the 41-50 years range and 31.43 percent are above 50 years old, with the mean age being 44 years. This indicates that the majority of FPC members are around 44 years old. Regarding gender, 25.71 percent of the members are male, and a significant majority of 74.29 percent are female. So, most of the FPCs consist primarily of female members and it's shown in Figure 1. In terms of educational status, 4.29 percent are illiterate, 19.29 percent have completed primary education (1-5 years), 35.00 percent have secondary education (6-10 years), 18.57 percent have higher secondary education (10-12 years), and 22.86 percent are graduates. The majority of farmers in the FPC are educated. The family size of the members indicates that 55.71 percent have less than 4 members, 32.86 percent have 4 to 6 members, and 11.43 percent have more than 6 members, with the mean family size being 4. The annual income distribution reveals that 47.14 percent earn below Rs. 100,000, 40.71 percent have an income between Rs. 100,000 to Rs. 200,000, 6.43 percent earn between Rs. 200,001 to Rs. 300,000, and 5.71 percent have an income exceeding Rs. 300,000, with the mean annual income being Rs. 129,871.43. This suggests that most farmers achieve a profitable income after joining the FPC. The annual income of FPC members is illustrated in Figure 2. Table 1 discusses the general characteristics of sample members of FPCs, such as age, gender, educational status, family size, annual income, farming experience, and land holdings.

**Table 1 General Characteristics of FPC Members**

S. No	Particulars	Frequency	Percent
<b>I.</b>	<b>Age (Years)</b>		
1.	Up to 30 years	27	19.29
2.	31-40 years	39	27.86
3.	41-50 years	30	21.43
4.	Above 50 years	44	31.42
	<b>Total</b>	<b>140</b>	<b>100.00</b>
	<b>Mean age</b>	<b>44</b>	
<b>II.</b>	<b>Gender</b>		
1.	Male	36	25.71

**Comment [N35]:** Use 'per cent' in all the required places.

**Comment [N36]:** Use the same tense throughout the manuscript either present or past tense, (preferably past tense)

**Comment [N37]:** Use 'per cent' in all the required places.

**Comment [N38]:** Use 'per cent' in all the required places.

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**Comment [N40]:** Use 'per cent' in all the required places.

**Comment [N41]:** Use the reference as Table instead of Figure. **Both Figure and tables are not required.**

**Comment [N42]:** Use 'per cent' in all the required places.

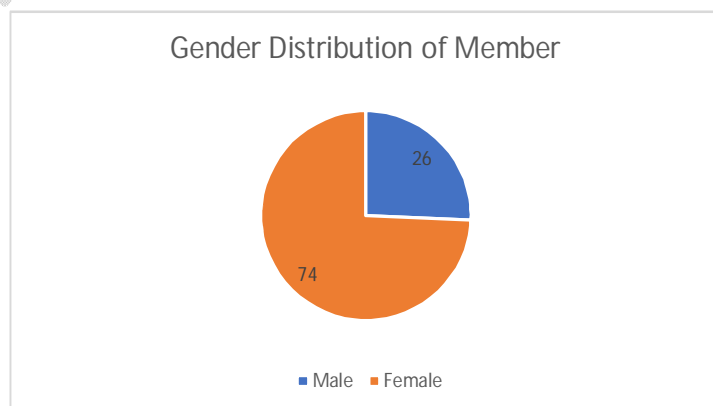
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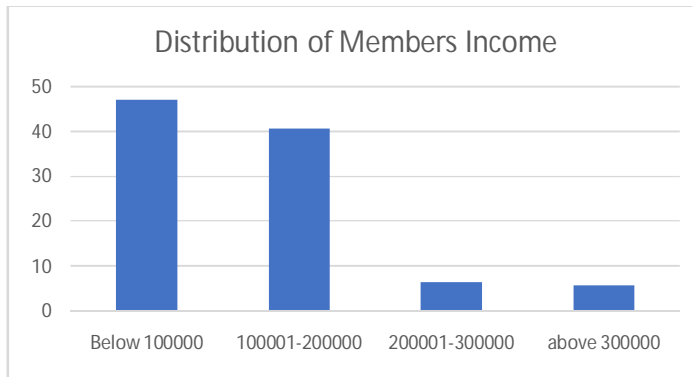
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2.	Female	104	74.29
	<b>Total</b>	<b>140</b>	<b>100.00</b>
<b>III.</b>	<b>Educational status</b>		
1.	Illiterates	6	4.28
2.	Primary Education (1-5)	27	19.29
3.	Secondary Education (6-10)	49	35.00
4.	Higher Secondary Education (10-12)	26	18.57
5.	Graduate	32	22.86
	<b>Total</b>	<b>140</b>	<b>100.00</b>
<b>IV</b>	<b>Family size (Nos.)</b>		
1.	Less than 4	78	55.71
2.	4 to 6	46	32.86
3.	More than 6	16	11.43
	<b>Total</b>	<b>140</b>	<b>100.00</b>
	<b>Mean</b>	<b>4</b>	
<b>V.</b>	<b>Annual Income (Rs.)</b>		
1.	Below 100000	66	47.14
2.	100000 to 200000	57	40.71
3.	200001 to 300000	9	6.43
4.	More than 300000	8	5.72
	<b>Total</b>	<b>140</b>	<b>100.00</b>
	<b>Mean</b>	<b>129871</b>	

(Figures in parentheses indicate percent to total)



**Fig 1 Gender Distribution of FPC Members**



**Fig 2 Income Distribution of FPC Members**

Table 2 shows the demographic profile of Farmer Producer Company (FPC) members based on their farming experience. Out of the 140 surveyed members, the majority (30 percent) have 11 to 20 years of farming experience. Those with less than a decade of expertise comprise 25.71 percent of the membership. The remaining members are evenly split, with 21.43 percent having farmed for 21 to 30 years, and 22.86 percent boasting over three decades of agricultural practice. The average farming experience within the FPC is 20 years. This suggests that most FPC members have at least 20 years of farming experience.

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**Table 2 Farming Experience of FPC Members**

S. No	Particulars	Frequency	Percent
<b>Farming Experience (Years)</b>			
1.	Less than 10 years	36	25.71
2.	11 to 20 years	42	30.00
3.	21 to 30 years	30	21.43
4.	More than 30 years	32	22.86
	<b>Total</b>	<b>140</b>	<b>100.00</b>
	<b>Mean</b>	<b>20</b>	

(Figures in parentheses indicate percent to total)

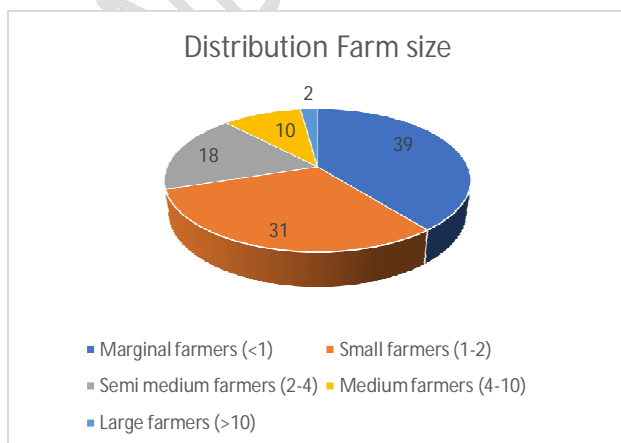
Table 3 presents the distribution of farm sizes among the FPC (Farmer Producer Organization) members. Out of the 140 respondents, the majority, 39.29 percent, were marginal farmers with less than 1 hectare of land. Small farmers, with land holdings between 1 and 2 hectares represented 30.71 percent of the members. Semi-medium farmers, who owned between 2 and 4 hectares, comprised 17.86 percent of the group, while medium farmers, with 4 to 10 hectares, accounted for 10.00 percent. Larger farmers, owning more than 10 hectares, represented only 2.14 percent of the members. The farm size of the FPC members is represented in Figure3. The average farm size of 2.6 hectares reflects a predominantly small-scale farming community within the FPC.

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**Table 3 Farm size of the FPC Members**

S. No	Particulars	Frequency	Percent
<b>Farm size (ha)</b>			
1.	Marginal farmers (<1 ha)	55	39.29
2.	Small farmers (1-2 ha)	43	30.71
3.	Semi-medium farmers (2-4 ha)	25	17.86
4.	Medium farmers (4-10 ha)	14	10.00
5.	Larger farmers (>10 ha)	3	2.14
	<b>Total</b>	<b>140</b>	<b>100.00</b>
	<b>Mean</b>	<b>2.6</b>	

(Figures in parentheses indicate percent to total)



### Fig 3 Farm Size Distribution of FPC Members

The general characteristics of FPC members are quite diverse. Most members are over 40 years old, with a mean age of 44 years, and most are female (74.29 percent). In terms of education, the members range from illiterate to graduates, with the largest group having a secondary education. The average family size is 4 members, with 55.71 percent having less than four members. Regarding income, nearly half of the members earn below Rs. 100,000 annually, and the mean annual income is Rs. 129,871. Overall, FPC members represent a wide range of demographics encompassing age, gender, education, family size, and income. The diversity within the group contributes to a rich and varied pool of perspectives and experiences.

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#### 4.2 Functions and Governance of FPC

The main goal of the FPC is to provide quality inputs, procurement, and trading of commodities to increase the income of member farmers. The comparison of the seven select FPCs is shown in Table 4 and Table 5.

SEEDS (Social Education Economical Development Society) Farmer Producer Company Limited promoted by NABARD was registered on 18th December, 2014. The age of FPC is about nine years. This FPC consists of 3036 small farmers (53 percent), 1197 marginal farmers (21 percent), 1284 semi-medium farmers (22 percent), and 254 large farmers (4 percent) with a total of 5771 members spread over 110 villages in a block. There are about ten Board of Directors including the Chairman. The authorized and paid-up capital was Rs.3.5 lakhs and 60 lakhs, respectively.

**Comment [N49]:** DECIMAL AND 'per cent'

Ramanar Farmer Producer Company Limited promoted by NABARD was registered on 22nd April 2016. The age of FPC is about eight years. This FPC consists of 694 marginal farmers (24 percent), 1866 small farmers (63 percent), 226 semi-medium farmers (8 percent), and 157 large farmers (5 percent) with a total of 2943 members spread over 89 villages in a block. There are about ten Board of Directors including the Chairman. The authorized and paid-up capital was Rs.10 lakhs and 1.1 lakhs, respectively.

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Valarchi Farmer Producer Company Limited promoted by NABARD was registered on 29<sup>th</sup> August 2017. The age of FPC is about seven years. This FPC consists of 560 marginal farmers (56 percent), 330 small farmers (33 percent) and 110 large farmers (11 percent) with a total of 1000 members spread over 45 villages in a block. There are about five Board of Directors including the Chairman. The authorized and paid-up capital was Rs. 10 lakhs and 1 lakh, respectively.

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Kariapatti Millet Farmer Producer Company Limited promoted by NABARD was registered on 23<sup>rd</sup> September, 2014. The age of FPC is about ten years. This FPC consists of 525 marginal farmers (44 percent), 360 small farmers (30 percent), 255 semi-medium farmers (21 percent), and 60 large farmers (5 percent) with a total of 1200 members spread over 86 villages in a block. There are about eight Board of Directors including the Chairman. The authorized and paid-up capital was Rs.50 lakhs and 15 lakhs, respectively.

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Meghamalai Collective Farmer Producer Company Limited by TNSFAC was registered on 21<sup>st</sup> April 2020. The age of FPC is about four years. This FPC consists of 592 marginal farmers (66 percent), 297 small farmers (33 percent), and 14 large farmers (2 percent) with a total of 903 members spread over 28 villages in a block. There are about ten Board of Directors including the Chairman. The authorized and paid-up capital was Rs. 20 lakhs and 9.03 lakhs, respectively.

Mullaiyaru Farmer Producer Company Limited by NABARD was registered on 30<sup>th</sup> December 2019. The age of FPC is about four years. This FPC consists of 339 marginal farmers (34 percent), 427 small farmers (43 percent), and 234 semi-medium farmers (23 percent) with a total of 1000 members spread over 40 villages in a block. There are about ten Board of Directors including the Chairman. The authorized and paid-up capital was Rs.10 lakhs and Rs.10 lakhs, respectively.

Mazhaithuli Livestock Farmer Producer Company Limited by NABARD was registered on 4<sup>th</sup> January 2022. The age of FPC is about two years. This FPC consists of 201 marginal farmers (40 percent), 218 small farmers (44 percent), and 78 large farmers (16 percent) with a total of 500 members spread over 8 villages in a block. There are about seven Board of Directors including the Chairman. The authorized and paid-up capital was Rs.15 lakhs and Rs.5 lakhs, respectively.

The Farmer Producer Companies (FPCs) supported by NABARD and TNSFAC, including SEEDS, Ramanar, Valarchi, Kariapatti Millet, Meghamalai, Mullaiyaru, and Mazhaithuli Livestock Farmer Producer Companies, have played a crucial role in organizing and empowering farmers in various areas of Tamil Nadu. These FPCs, which have been established for seven to ten years, each have over 500 shareholders, regardless of the promoting institution. More than 80 percent of the members in these FPCs are small and marginal farmers.

#### **4.3 Sources of Grants and Loans sought by the FPCs**

The major sources of grants received by the Farmer Producer Companies are NABKISHAN, Lakshmi Vilas Bank Limited, Union Bank of India, HDFC Bank Limited, The South Indian Bank Limited, and NABARD (Table 4), whereas loans were received from Samunnati Financial Intermediation & Services Private Limited and Ananya Finance for Inclusive Growth Private Limited. The total grant and loan received were Rs. 640.75 lakhs and Rs. 295.60 lakhs together accounting for Rs. 936.35 lakhs. FPC had received a matching grant of Rs.391.00 lakhs from NABKISHAN, especially for value addition of produce, packaging, marketing, and for providing wages for BOD.

FPC had a received start-up grant of Rs. 150.75 lakhs from the Bank. An equity grant of Rs. 99.00 lakhs were received from NABARD for the purchase of a Food Extruder, Sorghum Pearler, and Seed Cleaner-cum-Grader. The FPC also received a loan amount of about Rs. 295.60 lakhs from Samunnati and Ananya for the purchase of a tractor, purchase of oil extractor, purchase of fodder sorghum harvester, combine harvester, grader, and solar drier. It is observed that NABARD and its subsidiaries have a major role in supporting FPCs through grants. Other than grants, FPCs could generate loans ranging from an average of 31 percent to the total funds received.

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#### **4.4 Capacity Building Programme Organised by the FPCs**

In 2021, 412 shareholders benefited from training sessions focusing on pulses, millets, cotton, paddy, rainfed agriculture, and crop insurance. In 2022, 370 shareholders were trained on climate resilience, sustainable farming, and the latest agricultural technologies for rainfed farming. In 2023, 50 shareholders participated in a session on Integrated Pest Management (IPM) for rainfed crops. In 2024, 465 participants were trained in digital marketing of commodities and dairy farming. The year 2025 saw significant emphasis on value addition, labelling, marketing, and capacity building, with 910 shareholders trained across various sessions, including a microlearning center. These initiatives highlight a consistent effort to enhance agricultural knowledge and skills, adapt to climate challenges, and explore value-added opportunities in the agricultural sector.

UNDER PEER REVIEW

**Table 4 Profile of Sample FPCs in Virudhunagar district**

Particulars	SEEDS FPC Limited	Ramanar FPC Limited	Valarchi FPC Limited	Kariapatti Millet FPC Limited
Date of registration	18.12.2014	22.04.2016	29.08.2017	23.09.2014
CIN	U01403TN2014PTC098509	U01100TN2016PTC110005	U01409TN2017PTC118328	U01403TN2014PTC097482
Registration No	098509	110005	118328	097482
Age of FPC	Nine years	Eight years	Seven years	Ten years
Number of members				
i. Marginal farmers (<1ha)	1197 <b>(21.00)</b>	694 <b>(24.00)</b>	560 <b>(56.00)</b>	525 <b>(44.00)</b>
ii. Small farmers (1-2 ha)	3036 <b>(53.00)</b>	1866 <b>(63.00)</b>	330 <b>(33.00)</b>	360 <b>(30.00)</b>
iii. Semi-medium farmers (2-4 ha)	1284 <b>(22.00)</b>	226 <b>(8.00)</b>	-	255 <b>(21.00)</b>
iv. Large farmers (>10 ha)	254 <b>(4.00)</b>	157 <b>(5.00)</b>	110 <b>(11.00)</b>	60 <b>(5.00)</b>
Total	<b>5771 (100.00)</b>	<b>2943 (100.00)</b>	<b>1000 (100.00)</b>	<b>1200 (100.00)</b>
Promoted by	NABARD	NABARD	NABARD	NABARD
Villages covered	110	89	45	86
Authorized capital (Rs.)	3,50,000	10,00,000	10,00,000	50,00,000
Paid-up capital (Rs.)	60,00,000	1,10,000	1,00,000	15,00,000
No. of BoD including the chairman	10	10	5	8
The last AGM meeting conducted	30.12.2023	31.12.2023	31.12.2023	28.09.2023

(Figures in parentheses indicate percent to total)

**Comment [N57]:** Check whether publishing CIN and registration number is against privacy issues

**Comment [N58]:** Mention the abbreviation at the end of the manuscript.

**Comment [N59]:** Mention the abbreviation at the end of the manuscript

**Table 5 Profile of Sample FPCs in Theni district**

Particulars	Meghamalai Collective FPC Limited	Mullaiyaru FPC Limited	Mazhaithuli Livestock FPC Limited
Date of registration	21.04.2020	30.12.2019	04.01.2022
CIN	U01300TN2020PTC135190	U01409TN2019PTC133519	U01100TN2022PTC149004
Registration No	135190	133519	149004
Age of FPC	Four years	Four years	Two years
Number of members			
i. Marginal farmers (<1ha)	592 <b>(66.00)</b>	339 <b>(34.00)</b>	201 <b>(40.00)</b>
ii. Small farmers (1-2 ha)	297 <b>(33.00)</b>	427 <b>(43.00)</b>	218 <b>(44.00)</b>
iii. Semi-medium farmers (2-4 ha)	-	234 <b>(23.00)</b>	-
iv. Large farmers (>10 ha)	14 <b>(2.00)</b>	-	78 <b>(16.00)</b>
Total	903 <b>(100.00)</b>	1000 <b>(100.00)</b>	500 <b>(100.00)</b>
Promoted by	TNSFAC	NABARD	NABARD
Villages covered	28	40	8
Authorized capital (Rs.)	20,00,000	10,00,000	15,00,000
Paid-up capital (Rs.)	9,03,000	10,00,000	5,00,000
No. of BoD including the chairman	10	10	7
The last AGM meeting conducted	17.10.2023	30.09.2023	22.08.2023

(Figures in parentheses indicate percent to total)

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**Table 6 Sources of Grants and Loans sought for the FPCs**

S.No	Name of the grant	Source of funding	Amount (Rs. Lakhs)							Total Amount (Rs. Lakhs)
			SEEDS FPCL	Ramanar FPCL	Valarchi FPCL	Kariapatti Millet FPCL	Meghamalai Collective FPCL	Mullaiyaru FPCL	Mazhaithuli Livestock FPCL	
1.	Matching grant	NABKISHAN	166.00 (50.42)	129.00 (45.83)	10.00 (18.18)	15.00 (15.15)	15.00 (32.89)	50.00 (50.00)	6.00 (23.08)	391.00 (41.76)
2.	Start-up grant	Bank	60.75 (18.45)	15.00 (5.33)	10.00 (18.18)	50.00 (50.51)	-	15.00 (15.00)	-	150.75 (16.10)
3.	Equity grant	NABARD	5.00 (1.52)	5.00 (1.78)	20.00 (36.36)	24.00 (24.24)	-	20.00 (20.00)	10.00 (38.46)	84.00 (8.97)
		SFAC	-	-	-	-	15.00 (32.89)	-	-	15.00 (1.60)
4.	Loan	Samunnati	15.00 (4.56)	75.00 (26.64)	15.00 (27.27)	10.00 (10.10)	15.60 (34.21)	15.00 (15.00)	10.00 (38.46)	155.60 (16.62)
		Ananya	82.50 (25.06)	57.50 (20.43)	-	-	-	-	-	140.00 (14.95)
		Total	329.25 (100.00)	281.50 (100.00)	55.00 (100.00)	99.00 (100.00)	45.60 (100.00)	100.00 (100.00)	26.00 (100.00)	936.35 (100.00)
		Average	54.88	46.92	9.17	16.50	9.12	16.67	4.33	156.06

(Figures in parentheses indicate percent to total)

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#### 4.5 SWOT Analysis of FPC

The internal strengths, weaknesses, and external opportunities and threats to the Farmer Producer Companies (FPCs), as perceived by the facilitators and member farmers, are discussed in Figure 1 for the selected FPCs, with further details provided below.

**Strengths:** Strengths are the internal characteristics of the companies that give them an advantage over others. Strengths of FPCs include:

Direct marketing of fresh farm produce offers several advantages, including ensuring a fresh and steady supply, reducing dependency on middlemen, improving profit margins for farmers, and promoting local produce. By working with Farmer Interest Groups (FIGs), this model leverages collective experience to build strong community networks and foster cooperative efforts. Support from promoting organizations and institutions provides access to valuable resources, while a sustainable business model and well-structured operational framework ensure long-term sustainability. Coordination with other agencies enhances market access, technologies, and government schemes, creating a more integrated and supportive ecosystem. A growing population of members strengthens the community, brings in diverse perspectives, and enhances economies of scale. Transparent information sharing builds trust among members, promotes accountability, and facilitates better decision-making. These enhanced strengths emphasize collaboration, community building, and sustainability while recognizing the importance of transparency and market-oriented strategies.

**Weaknesses:** Weaknesses are characteristics of companies that put the organization at a disadvantage compared to others. The perceived weaknesses of the FPCs were:

The Farmer Producer Organizations face several challenges that hinder their progress and efficiency. Farmers lack knowledge of modern agricultural practices, which affects productivity and their ability to adapt to innovative techniques. The sector's reliance on rainfed agriculture makes it vulnerable to climate change and weather-related risks, leading to inconsistent crop yields. Additionally, the lack of processing and value-addition facilities prevents farmers from enhancing their produce's marketability and profitability. Dependence on intermediaries for credit puts farmers in disadvantageous financial arrangements. Limited agricultural initiatives restrict the scalability of development programs. Insufficient knowledge of advanced agricultural inputs and post-harvest practices further hinders productivity and leads to post-harvest losses. Addressing these challenges is crucial for improving the FPOs' effectiveness and long-term sustainability.

**Comment [N62]:** It can be added as a sub-sub-sub heading as 4.5.1 to make it more organized.

**Opportunities:** Opportunities are the elements in the environment that the organization could exploit to its advantage. There were various such factors for FPCs:

The Farmer Producer Organization (FPO) offers numerous benefits to smallholder farmers, including access to credit facilities, improved marketing linkages, and enhanced bargaining power. FPOs provide farmers with the necessary skills and knowledge for efficient farming, value addition, and effective management. They also offer essential inputs like quality seeds and fertilizers, enhancing their yield and produce quality. FPOs also create job opportunities and sales prospects within local communities, boosting economic activity and livelihoods. Increased awareness of government schemes and programs through FPOs ensures farmers can access support and benefits designed to aid their development. These opportunities collectively enhance the sustainability, profitability, and resilience of farming operations, positioning FPOs as a transformative model for agricultural development.

**Threats:** Threats are elements in the environment that could cause trouble for the organizations. The threats for a producer organization are:

The Farmer Producer Organization (FPO) model, despite its benefits, faces several threats that could affect its effectiveness and long-term sustainability. High volatility in bulk market prices can lead to financial instability for farmers and undermine the FPO's economic stability. Increased competition from local traders can erode market share and pressure FPOs to adapt quickly. Uniting group members remains a persistent challenge, as differences in interests and goals can hinder collaboration and lead to financial instability. The absence of established markets for value-added products limits FPOs' growth potential. High competition in the agricultural sector can also lead to the disintegration of member groups, straining relationships, and diminishing collective strength. Addressing these threats is crucial for FPOs' resilience and success, requiring strategic management, market adaptation, and strong internal governance.

## 5. Conclusion

The study reveals that Farmer Producer Companies (FPCs) have diverse backgrounds in terms of education, income, and farming experience. The majority of FPC members are middle-aged, predominantly female, and have completed secondary school. Despite financial difficulties, joining FPCs has led to increased farmers' earnings. Most FPC members have substantial farming experience, averaging 20 years, and are mostly small or marginal farmers with less than 2 hectares of land. The variety in farm size, experience, and demographic

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factors enhances the strength of FPCs, providing a broad spectrum of perspectives and experiences that promote innovation and cooperation. By offering training programs and facilitating access to grants and loans, FPCs have shown their ability to assist members, enhance livelihoods, and improve agricultural practices. FPCs, particularly those focused on millet cultivation, face challenges in direct marketing, collaboration, and institutional support. They face weaknesses in awareness of modern techniques, processing facilities, and climate resilience. Opportunities for credit access, market linkages, and skill development exist but are counterbalanced by threats from price fluctuations and competition. To ensure long-term success, future interventions should focus on strengthening organizational capacities, improving resource and market access, and enhancing members' technical skills individually. Addressing these issues directly can help FPC become more resilient and effective in serving millet farmers' needs and contributing to sustainable agricultural development.

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**Comment [N64]:** Abbreviations have to be added before reference.

**Comment [N65]:** Follow the guidelines of the journal to make it italics wherever required.

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**Comment [N66]:** Kindly check the reference writing style.