

Innovations

Sustainability of Farmers' Producer Companies – A Literature Review

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Abstract

The paper is based on literature review on sustainability of Farmers' Producer Companies. The FPO movement, which has been around for 20 years, is still in its infancy, with the majority of attention going into the development of under the cooperative and producers' company statutes, of commodity-specific FPOs. The Ministry of Agriculture's Department of Agriculture and Cooperation established the Farmer Producer Organisation, which was one of their key projects, in an effort to address these issues. The main reason for the formation of producer businesses was to take advantage of backward and forward linkages in order to study the problems that impact sustainability research. The strategy aims to develop a sustainable agricultural sector with the assistance of the government, NGOs, and other organisations, which may improve output and collectivise farmers in order to lower transaction costs and so raise the income of the farmers. Involving farmers in the value chain, solving marketing challenges, and supporting farmers' entrepreneurial spirit are some of the key concepts of government policy related to the agriculture industry in recent years. Only a few studies have been done on social sustainability, and more work is needed to combine all three aspects of sustainability for FPOs. The study brings out the factors that affect sustainability and its need to be studied in detail.

Keywords: *Farmer Producer Companies, Environmental Sustainability, Financial Sustainability and Social Sustainability*

1. Introduction

For the purpose of enabling the conversion of existing cooperatives into corporations, the government established a high-powered committee on November 1st, 1999, with Chairman Prof. Y K Alagh. A bill to alter the Companies Act of 1956 was suggested as a result. In order for farmers to receive a higher income through marketing, processing, grading, export, and other forward connections, the committee believed it was crucial to connect them with the market. It was believed that there should be a clear communication between the producer and the consumer through organized marketing by modernizing and professionalizing the producers. Concerned with Producer Companies is "Part IX A". The shortcomings of cooperatives were thought to be addressed by producer firms. The committee created laws that govern how Producer Company will be handled. The Companies Act's definition of a primary producer must be met in order to join the FPC, and members are expected to make decisions democratically. The Producer Companies Act contains the laws, regulations, provisions, articles, and memorandum of association (Y K Alagh, 2000).

Despite its two-decade history, the FPOs movement is still in its infancy, with the establishment and development of commodity-specific FPOs under the cooperative and producers company acts receiving the majority of the attention (Wadkat et. al., 2021). Even now, the majority of the population in India still works mostly in the agricultural sector. Farmer Producer Organisation was created as one of the primary attempts by the Department of Agriculture and Cooperation of the Ministry of Agriculture to mainstream the concept of member-based institutions of farmers with the aim of resolving these issues (Singh Sukhpal and Tarunvir Singh, 2014). Sustainable agriculture, a rapidly growing field, strives to generate energy and food for people today and in the future. Since the idea of sustainability varies depending on the industry, every region and nation has its own set of indicators. The three main facets of sustainable agriculture are economic, environmental, and social. For the past 25 years, sustainable agriculture has been the centre of study and received a lot of attention. There have been numerous attempts to uncover these dimensions, but little recent study has focused on combining all signs (Bathaei A, and Štreimikiene D, 2023).

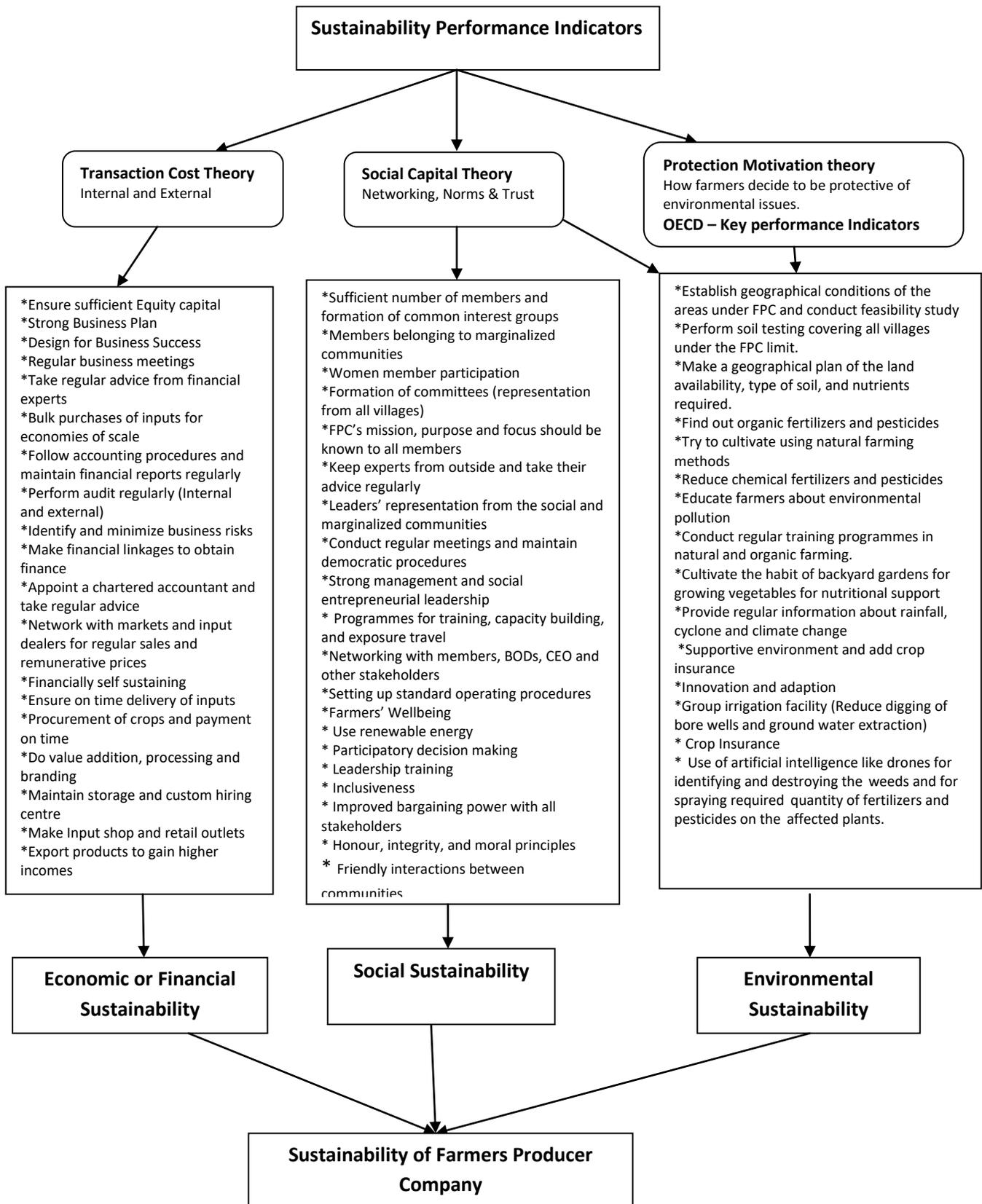
2. Objectives

1. To find out if Farmers' Producer Companies are able to achieve sustainability.
2. To study the challenges affecting sustainability.
3. To know the factors affecting sustainability.

3. Research Background

Integrating small and marginal farmers was the primary goal of the creation of producer companies in order to benefit from backward and forward linkages. The advantages of backward links include low-cost input supply, or economies of scale, and the advantages of forward linkages include collective marketing processing and better pricing. Most of these FPCs were dealing with seeds and its supply as it does not require much working capital. The establishment made these FPCs successful and many of them were able to generate profits within 3 to 4 years of standing. Good Management, banking help and clearly defined goals were the main reasons for the success for the FPCs. After being founded, a Producer Company should be able to assist its members by offering inputs at lower rates, should be able to offer technical assistance, should practise good governance, and should be able to achieve both social and economic goals (Mondal Ashish 2010). FPCs can help the small and marginal farmers in India to overcome the problems of competitive markets. The important factors that FPCs should address are supply of inputs to farmers at a rate less than market by bulk purchases; provide training and capacity building programmes; production planning, value addition, branding; extension services, transportation, technology; market information and market linkages. These services by the FPCs with professional help and leadership qualities make the FPCs govern in an efficient manner. The FPC structure is sustainable and the small and marginal farmers can participate in decision making to deal with the competitive markets (Trebbin Anika and Markus Hassler, 2012). The Farmer Producer Companies have been identified by the Ministry of Agriculture's Department of Agriculture and Cooperation (DAC), as the best method for organising farmers and boosting their output, sales, and earnings. The strategy aims to advance a sustainable agricultural sector that may boost output and collectivise farmers with the assistance of the government,

Figure 1 Theoretical Model Based on the Literature Review



NGOs, and other organisations to lower transaction costs and consequently enhance the farmers' income. The central government and state governments' principal policy is to support FPOs in their operations through collaboration with promoting institutions, civil society institutions, research organisations, consultants, and others who may aid the FPOs in their development (Policy and Process guidelines of the dept. of agriculture and cooperation, GOI, 2013).

The potential of the member cooperatives to achieve long-term economic, social, and environmental sustainability is eventually enhanced by the federations, which open up channels for information exchange, resource pooling, and group decision-making (Juvylyn et. al., 2023). The FPOs have the potential to inspire transformative change in agriculture and rural development as they develop, adapt, and innovate further, helping to a world food system that is more durable and sustainable. The FPO system has given the historically existing agricultural marketing structures a new look that portends the success of this approach. Institutional support, which goes beyond just the development of institutions, is one of the key factors determining the longevity of FPO but offers fresh market connections, the adoption of agricultural best practices, and equips farmers with administrative abilities. By assisting them with high-quality inputs, technical know-how, financial resources, and most significantly by connecting small producers to the official marketing channels for agricultural products, it also gives small and marginal farmers a competitive edge. By lowering transaction costs and increasing the farmers' leverage over structural limitations like small holdings and mounting pressure from globalization, it supports collective farm operations to raise income levels (Singh et. al., 2018). For this reason, FPO actions should be reasonable, based on needs, and economical. Following group creation, engaging in activities with the group, such as field trips, group discussions, and training sessions, as well as cultivating a sense of greater collaboration and assimilation, can improve group stability (Gorai et. al., 2022).

4.1 Environmental Sustainability

Considering that India is just starting to expand its agribusiness, it is important that it include sustainable practices from the very beginning. The initial stage of the value chain is where the majority of environmental contamination is generated. Involving farmers in the value chain,

addressing marketing challenges, and fostering the entrepreneurial spirit of farmers are some of the core concepts of government policy relating the agriculture industry in recent years. All of these are required to boost Indian farmers' incomes and provide them with incentives to continue working as farmers. The thinning of the ozone layer, global warming, and climate change are merely the tip of the iceberg because numerous other problems either stem from these or are caused by human activity. The survival of various animal and plant species, as well as millions of populations, is being threatened by frequent droughts, floods, forest fires, and other natural calamities. (Yadav Swati and Ms. Mahima, 2021). Additionally, it is clear that some of the farmers had experience with organic farming prior to joining FPCs, but the majority engaged in conventional farming. According to the findings of the factor analysis, farmers' perceptions of a safe ecosystem and greater productivity were shown to affect them as important reasons for using sustainable agricultural techniques (Navaneetham et. al., 2019).

Controlling the overfishing and acidity of the oceans, which are brought on by the earth's warming, is necessary. Use of non-renewable energy: Energy is thought to be a major contributor to 60 percent of global greenhouse gas emissions. The approximately 3 billion people who use fossil fuels for cooking and the absence of both urge for a shift in terms of availability of electricity. Also, 22% of the species are under danger of extinction. This demonstrates the importance of giving natural heritage conservation careful consideration. Expecting the sustainability target to be achieved at the farmer level while this is still being implemented would be unreasonable. However, it is possible to lower the carbon footprint at the top of the value chain to make it more environmentally friendly (Swati Yadav and Ms. Mahima, 2022). The cooperatives help to preserve biodiversity, soil health, and water quality by implementing ecologically sound practices like organic farming, agro ecology, and resource-saving technologies (Juvylyn et. al., 2023). A study conducted in China revealed that the mediating effect model was used to examine the processes and pathways by which farm size affects the environmental effects of producing apples in order to estimate the mediating impacts of fertilizer, pesticide, and machinery input intensity (Cheng et. al., 2022).

A case of Suraksha Farmers Producer Company Limited, Siddipet.

Centre for Sustainable Agriculture (CSA) is an organization that is working towards sustainable agriculture through organic farming for improving the incomes of the farmers. CSA is implementing its models in agriculture and rural livelihoods striving to achieve increase in productivity and farm incomes. CSA is also supporting Farmers Producer Companies in marketing its organic produce. It promoted Suraksha Farmers Producer Company Limited in Siddipet. The company is dealing with vegetables, organic inputs, tarpaulin covers and country chicken. The company was incorporated on 17th February 2016. The company has 546 farmers since inception. The company is geographically spread into 12 villages in Siddipet district. The villages are 1. Mulugu 2. Narsampally 3. Adavimajid 4. Kottiyal 5. Alinagar 6. Kamalabad 7. Sheerasagar 8. Jagadish Singaihally 9. Mamidiyal 10. Bailampur 11. Tanagarpally and 12. Annasagar. Before joining the company, the shareholders were already members in the Mutually Aided Cooperative Societies (MACS). Under this the members have taken credit services from the society. These members became the members of farmers' producer company therefore the company has 546 members since inception. About 26 percent of farmers belong to Scheduled Caste, 66 percent of farmers belong to backward community and 7 percent belong to other community. Most of its members belong to small and marginal category. About 64 percent of the members are active in the company and women members are 86 percent. Simple technology such as hand weeders, manual weeders, and drum seeder made by private traders is supplied to farmers through custom hiring centre. Two farmers have adopted SRI cultivation techniques with the consultation of ATMA. 25 units of green houses were also promoted for vegetable cultivation. The company also initiated traditional variety of paddy (NAVARA) black rice on half acre. It is priced at Rs. 50 per kg. Many farmers are cultivating organic vegetables. The certification is given by CSA. The company has made marketing linkages with Peromon Chemicals; Pratishta Bio Sciences, Uppal; Agritech, Hyd; Sambhagya, Toopran for organic inputs. Manual weeders were bought from Calcutta. Seeds were purchased from Sai agencies, Bashirbagh; Prakash agencies; and from Agriculture University; Drum seeders were bought from Tamil Nadu dealers.

Organic vegetables were sold to Sahaja Aharam; Go for Fresh; JP Organics; Prachana Organics; N Grown Organics; and Vijaya Vinayaka Organics. The company gets a benefit of Rs. 50 to Rs. 200 on organic fertilizers and the farmers get a benefit of Rs. 50 to Rs. 100 when compared to market cost. The members also get the inputs on time so they save cost and time. On sale of agriculture implements the company gets a benefit of Rs. 50 to Rs. 100 on different implements and farmers get a benefit of Rs. 50 to Rs. 100 when compared to market. Homeopathies pesticides are supplied by the company on no profit no loss basis. However the use of homeopathy pesticides is still under research. The organic vegetables are sold at cost plus 15 percent premium price to the markets with which linkages are made. The FPC is able to generate 15 to 16 lakhs per annum from the sale of vegetables. Payment is made to the farmers through bank transfers every fifteen days.

Source: Primary collected during NABARD Project E Revathi and Arifa Sultana, 2021

4.2 Financial Sustainability

Even while the producers benefit from being a part of the value chain developed by the producer firms, "wealth accumulation" is not happening at the level of the producer companies. The ability of the production corporations to expand and scale up their businesses is severely hampered by this. Building the producers' knowledge of their legal obligations and duties in running their businesses is necessary. If primary producers are not given the necessary information and skills, the ideological baggage of the sponsor institutions may sometimes filter down to the producer companies, negating their commercial interest. The Indian producer firms are still undergoing development. In order to advance the larger cause of small producers and to demonstrate the effectiveness of this unique business enterprise model for small producers, it is urged to support the producer businesses through appropriate methods and government support (Murray, 2013).

Evaluation of a study on Farmers Producer Companies' financial stability was assessed based on the eight indicators taking secondary data of financial statements for four years from the Ministry of Corporate website in pan India mode. The data was computed to find out the overall financial sustainability of the FPCs. The indicators used were sales; stock; employee benefit expenses; capital; financial cost; payment to government and economic value retained. The ratio tools used

were sustainability growth rate, net financial liabilities ratio, asset sustainability ratio, cash conversion cycle, cash flow from operating activities, and operational surplus ratio. The analysis has shown that most of the FPCs are not financially sustainable. It was found that FPCs are dependent on the outside funds for its operations and due to lack of finance; the FPCs are not financially sustainable. It was found that half of the FPCs were not able to clear their dues to the suppliers (Kakati Shivam and Arup Roy, 2019). Another study evaluated the financial standing of a few Farmer Producer Companies of dairy products. Four dairy-based FPCs from the Indian states of Madhya Pradesh, Uttar Pradesh, and Rajasthan provided the information. Investigations were related to the key four indicators of financial performance: liquidity, solvency, profitability, and effectiveness. Financial ratios performance score technique was used for analysis, and it gave a sign of performance. During the three years under study, the investigation found that all four Farmer Producer Companies perform poorly and are in the danger zone, failing horribly in terms of solvency, efficacy, and profitability. According to the analysis, organizations' overall efficiency or activity ratio performance was subpar (Kumar et. al., 2021). Although MAHA-FPC's cash situation remains steady, over the previous six years, the company's net profitability as a share of operating revenue has changed. The profitability of MAHA-FPC is anticipated to increase over the coming years because the company is presently in the rising stage of its business cycle. This percentage suggests long-term effects on MAHA-FPC's profitability because additional loans may be required, which would result in additional costs in the form of interest. Over the past six years, there has been a shifting pattern in the company's net profitability to revenue from operations ratio. The company's revenue fluctuates greatly, which causes a very big loss in some years. It is advised that the business concentrate on stabilizing revenue in order to improve performance in the upcoming years and win over shareholders. It is demonstrated by MAHA FPC's overall net profitability that the business has begun to turn a profit. According to MAHA-FPC's financial research, the company has a promising future, and the share capital is expanding as more and more FPOs become shareholders (Wadkar et. al., 2021).

4.3 Social Sustainability

Membership influences the development of social capital, including trust, contentment, and commitment, in a positive and highly significant way. The cooperatives' substantial impact on

members' social capital may be due to the regular meetings and information-sharing that follow, which further improve members' allegiance, commitment, and participation in their cooperatives. In general, cooperatives can be seen of as a different way to revitalize the agrarian community by enhancing local involvement in additional collective action that promotes sustainable development in terms of economic, social, and environmental factors (Mojo et. al., 2015). It was discovered that the company's power has come from its size, networking, and collaborative action. For the participants, trust has been crucial. The Farmer Producer Companies in Telangana State have demonstrated strong member involvement, election participation, and government-provided effective administration. FPCs with experts, such as Karimnagar and Chetna Producer Company, are outperforming businesses without professionals. The members' production has increased and their costs have decreased thanks to the training and capacity building activities. The cost of production and transaction costs in marketing have decreased as a result of the members' collective bargaining. The FPCs are able to deliver inputs to members promptly and at reduced prices since they have made large-scale purchases. The different marketing connections have given farmers lucrative pricing, something that was previously impossible for a single farmer. As tiny and marginal farmers, they were unable to obtain any loans; nevertheless, as a group, they were able to obtain numerous collateral-free bank loans. Additionally, they received financial support from private organisations. Farmers' livelihoods have benefited from Telangana State's successful farmer producer firms (Sultana, 2019). FPOs may provide their members with official or unofficial social protection benefits. Another study demonstrates that the bulk of the social protection benefits provided by FPOs are covered by social insurance and informal insurance, such as health, pension, and accident insurance. Enabling factors include stable land rights, strong leadership and management, market access for forest products and revenues, regulatory and institutional assistance, the environment, social norms, and political involvement. FPOs can benefit from financial and technical support to improve their viability and free up cash for the provision of social protection (Nyasha et. al., 2018).

5. Challenges Affecting Sustainability in Farmer Producer Companies

- The problems as shown were the farmers were unable to reap profits when compared to the open markets and lack of information flow was another problem. The main problems

were lack of technical knowledge and no transparency in financial accounting. (Prajapati et. al., 2023).

- Lack of technical support, lack of honoraria for office bearers’ failure to arrange credit facilities and crop insurance, many FPOs are still unable to secure regular credit facilities.
- The sustainability and credit availability are respectively impacted by the presence of non-producer memberships, the absence of primary/lead products and commodities, the lack of infrastructure facilities, the presence of few investors, the marginality/small holders/landless/tenant nature of the shareholders, viable business operations, capital-intensive and market competition, and parity among the implementing FPOs (Singh Th. Motilal. S. 2022).
- Bridging-type social capital in larger FPOs seemed to involve the risk of harming the FPOs by exploiting contacts outside the organization (Chlebicka Aleksandra and Michał Pietrzak, 2022).
- Climate change, resource scarcity, and social injustice are the urgent issues that need to be tackled by the FPOs (Juvylyn et. al., 2023).

6. The factors affecting sustainability of Farmers Producer Companies

Economic Factors affecting sustainability	Environmental Factors Affecting Sustainability	Social Factors Affecting Sustainability
Consistency in Production	Study the soil conditions	Renewable energy usage
Profitability	Finding out the fertility	Credit and finance to members
Business diversification	Application of organic manure	Participatory decision making
Affordable technology	Controlled use of fertilizers	Capacity building and training
Increase in income of member farmers	Application of natural farming methods	Leadership training
Marketing of farm produce	Preservation of the environment	Exposure visits
Financial linkages	Authenticity of the	Improved bargaining power

	environment	with stakeholders
Savings in transaction costs	Information support about natural disasters, climate and droughts.	Women participation
Economic benefits to members.	Crop insurance	Inclusiveness
Inputs supply at reduced costs	Use of artificial intelligence like drones for identifying and destroying the weeds and for spraying required quantity of fertilizers and pesticides on the affected plants.	Solidarity among members
Procurement facility	Organic farming practices	Trust between members, management, and other stakeholders
Value addition and processing	Use of bio-fertilizers	Farmers' wellbeing
Branding and packing	Storage facility to avoid wastage	Honour, integrity, and moral principles
Sale at national level and export	Environmental awareness programmes	Friendly interactions between communities

Prepared by the author

7. Conclusions

The FPO movement, which has been around for 20 years, is still in its infancy, with the majority of attention being paid to the development and expansion of commodity-specific FPOs under the cooperative and producers' company acts. The fundamental purpose of the establishment of producer businesses was to gain access to backward and forward linkages in order to benefit from historical integration of small and marginal farmers in order to research the issues that affect sustainability research. Due to their formation in companies with three to four years' standing, several of these FPCs were able to earn a profit within three years. The obstacles faced by India's competitive markets can be overcome with the help of FPCs for the country's small

and marginal farmers. The Ministry of Agriculture, Department of Agriculture, and Cooperation have established that the Farmer Producer Companies are the most efficient way to organise farmers and boost their output, sales, and incomes. With the aid of the government, NGOs, and other groups, the plan intends to create a sustainable agricultural sector that might increase output and collectivise farmers in order to reduce transaction costs and therefore increase the farmers' income. Some of the main ideas of government policy linked to the agriculture business in recent years include involving farmers in the value chain, addressing marketing issues, and encouraging the entrepreneurial spirit of farmers. There are a few studies on social sustainability and needs much research on combining all three dimensions of sustainability on FPOs. The study finds out the factors affecting sustainability and there is a need to be studied from the point of view of Farmers Producer Companies in depth.

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