Farmer Collectives: A Case Study on Kudumbashree, VFPCK and FPCs in Kerala

Discussion Paper 18

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About the Publication

The research report is based on the research conducted by Ms. Reshma Sara Sabu as MANAGE Intern under the MANAGE Internship Programme for Post Graduate students of Extension Education.

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Director General's message

Smt. G. Jayalakshmi, IAS
Director General, MANAGE

I congratulate Ms. Reshma Sara Sabu, MANAGE intern and former M.Sc. Scholar, Kerala Agricultural University, for conducting passionate study on the topic "Farmer Collective's: A case study on Kudumbashree, VFPCK and FPCs in Kerala" and collecting good data from field and analysis.

Cooperatives were seen as a major instrument of rural economic development and the concept dates back to 1950-60s. With this collectivization process facing initial hiccups evolved the producer cooperatives which later turned to be Farmer Producer Companies (FPCs).

The study was carried out in different farmer collectives of Kudumbashree, VFPCK and FPOs in Kerala. It helps us to understand the functioning and problems faced by different collectives. The study revealed that FPCs face problems like lack of financial resources, complexity of legal formalities, and lack of marketing strategy and high cost of production. Each of these farmer collectives in Kerala differ in their goal orientation, organizational structure and operational activities which are described in the case study. Their mode of operation is contextual based on resources, needs and leadership patterns.

Thus, this study with the emphasis on the farmer's collectives' is a need at this hour to understand how these models become successful through fetching better prices for farmers by collective decision making and increasing their bargaining power.

(G. Jayalakshmi)

Preface

Collective farming would help small and marginal farmers overcome constraints in mobilizing credit, adopting latest technologies and adding value to their produce. Thus the present study was taken up to study the different farmer collective's models and the constraints faced by the farmers in them.

This research work provides an outlook on how each collective is formed and its organizational activities, which could serve as a best model for empowering small and marginal farmers. In detail, the paper analyses the importance of farmer collectives and their importance. The different farmer collectives that are established and promoted by the Kerala government such as JLG (Joint Liability Group) in Kudumbashree, SKSs (Swasraya Karshaka Samithi) in Vegetable and Fruit Promotion Council of Kerala (VFPCK), and also the other Farmer Producer Companies (FPCs), their models and mode of operation are explained in this study. Each of these farmer collectives differ in their goal orientation, organizational structure and operational activities which are described as case studies. The study is mostly descriptive and can be useful for the student scholars in taking up the further research and also provides idea to the policy makers for their further development so that these models can benefit the farmers to the fullest.

(Saravanan Raj)
Director (Agricultural Extension)

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Abbreviations

ADS	Area Development Society
APMC	Agriculture Produce Marketing Committee
ATMA	Agricultural Technology Management Agency
CDB	Coconut Development Board
CDS	Community Development Society
CPC	Coconut Producer Company
CPF	Coconut Producer Federation
CPS	Coconut Producer Societies
FCs	Field Centers
FMCG	Fast Moving Consumer Goods
FPCs	Farmer Producer Companies
Ha	Hectare
HORTICORP	Kerala State Horticultural Products Development Corporation Ltd.
INDOCERT	Indian Organic Certification Agency
IOFPCL	India Organic Farmer Producer Company
JLGs	Joint Liability Group
KVK	Krishi Vigyan Kendra
MoU	Memorandum of Understanding
MRP	Maximum Retail Price
NHGs	Neighborhood Groups
PCs	Producer Companies
PTD	Participatory Technology Development
SFAC	Small Farmers' Agri-Business Consortium
SHG	Self Help Group
SKS	Swasraya Karshaka Samithi
SWOT	Strengths, Weaknesses, Opportunities, Threats
VFPCK	Vegetable and Fruit Promotion Council of Kerala

Abstract

The small and marginal land holdings constitute 86.08 per cent of total holdings in India. In the post green revolution period, adoption of intensive agriculture practices has led to overexploitation of resources. Hence, these small and marginal farms play an important role in the sustainability of Indian agriculture. Farmer collectives is the best strategy that could be adopted where small and marginal farmers voluntarily pool their resources like land, labour, capital and skills to form a larger enterprise. Around 99 percent of the farmers are small and marginal are unique group farming models adopted in Kerala. The study was carried out in different farmer collectives of Kudumbashree, VFPCK and FPOs in Kerala. All these collectives are established and promoted by the government. In Kudumbashree, the unemployed women are organized into Joint Liability Groups to carry out farming activities in leased land. They are supported through extension services like supply of seeds, fertilizers, trainings from Kudumbashree and Krishi Bhavan. Kudumbashree has proved the success of women empowerment through agriculture. VFPCK is established to promote fruits and vegetables production in the state by providing a marketing platform i.e. SKSs (Swasraya Karshaka Samithi). The extension activities are carried out through master farmers in SHGs. The master farmers of each SHG form a committee and take decisions on the activities of SKS. This has helped the farmers to sell their produce by avoiding middle man and better price discovery through collective decision making. The FPCs are promoted by the government of India and registered as a company. The motive of FPC is to bring collective action by providing both forward and backward linkages, hence achieving economies of scale. There is no perfect model for farmer collectives. They are contextual and differ based on their resources, needs, problems and leadership pattern. Each case study helps us to understand successful factors for adoption and identify the issues experienced.

Executive Summary

The study was conducted in Kerala where 99.09 per cent of farmers are small and marginal (Agriculture Census 2015-16) and due to lack of APMC act, there is no organized agricultural marketing system. There are unique group farming models carried out in Kerala i.e. the Kudumbashree and VFPCK. In addition to this, FPCs were also studied. Kudumbashree is a joint programme of the Government of Kerala and NABARD formed in 1998 and implemented through Community Development Societies (CDSs) for women empowerment. Three Joint Liability Groups (JLGs) in Kudumbashree were studied on how they carry out fallow land cultivation. In the group of 4 to 10 members, a master farmer is selected as head of the group. They carry out cultivation in leased land and their activities are monitored by Kudumbashree officials. They get inputs and trainings from Krishi Bhavan and KVK. These activities ensure additional income and better social status to them in the society. The Kudumbashree farmers face problems like lack of proper market even they could make good produce.

The Vegetable and Fruit Promotion Council of Kerala (VFPCK) was formed in 1993 by Kerala Horticulture Development Programme (KHDP) with financial assistance from European Union and Government of Kerala with the aim of promoting fruits and vegetable production in Kerala. The activities of VFPCK are carried out by SHGs formed by 15-20 members with one master farmer who carries out extension activities. SHGs join and form Swasraya Karshaka Samithi (SKS) where they pool their market produce and traders come there for purchase. This could avoid the role of middle man in marketing of agricultural produce. Input supply, need base trainings, Participatory Technology demonstrations, Insurance schemes are carried out through VFPCK. The farmers face issues like lack of proper storage facilities, high cost of cultivation and delay in payment of the produce.

Farmer Producer Company is a hybrid between cooperative societies and private limited companies, which combines the goodness of cooperatives and efficiency of corporate company. These are formal rural organizations with the objective of improving farm income through improved production, marketing, and processing activities. They are formed in 2003 as new form of farmers collectives emerged under the provision Part-IX-A Chapter-1 of The Companies Act. They were modeled as an interface between small holder farmers and markets by providing forward and backward linkages. Three different FPCs were studied to understand their functioning and problems. The study revealed that FPCs face problems like lack of financial resources, complexity of legal formalities, lack of marketing strategy and high cost of production. Each of these farmer collectives differ in their goal orientation, organizational structure and operational activities which are described in the case study.

Introduction

"You can do what I cannot do. I can do what you cannot do. Together we can do great things."

- Mother Teresa

Indian agricultural sector is characterized by fragmented land holding pattern. Small and marginal farmers are in majority among the farming population. According to the agriculture census 2015-16, small and marginal holdings (up to 2 ha) constitute 86.08 per cent of total holdings and their share in the operated area is at 46.94 per cent.

In the post green revolution period, adoption of intensive agriculture practices has led to overexploitation of resources and increase in cost of production which in turn made agriculture less profitable enterprise. On the other hand, increasing population has led to rapid fragmentation of land (ICID, 2015). The average size of operational holding in India has declined from 2.28 ha in 1970-71 to 1.08 ha in 2015-16 (Agriculture Census 2015-16). Since small and marginal farmers form majority, they play an important role in future sustainability and food security in agriculture depends on their performance.

Group farming is one of the best alternatives where small and marginal farmers voluntarily pool their resources like land, labour, capital and skills to form a larger enterprise, without forfeiting rights in any owned land and cultivate it jointly, sharing costs and benefits (Agarwal, 2018). Collective action could help the farmers to tackle issues in low production and increase efficiency in resource use, adopting modern technology, producing quality produce, processing & marketing. As group's small farmers can come together, they can capture the emerging domestic markets as well as enter into world market.

History of Collectivization

Agricultural collectivities of two types were found in the past; production collectivities involved in some form of joint cultivation and service collectivities for credit, inputs or marketing. Production cooperatives largely failed, especially in the early period while service cooperatives were relatively successful.

The idea of collective action came from, collectivization policy by the Soviet government initiated during the period 1929 to 1933, with the aim of transforming traditional agriculture and to reduce the economic power of the kulaks (farmland owners). This forced collectivization resulted in reduced grain output and almost halved livestock numbers, thus creating major famines. Joint cultivation was related to socialist collectivization, such as in the USSR, Eastern Europe, China and North Vietnam. During the 1960s and 1970s, there were also significant efforts in some non-socialist

countries, such as Ecuador and Nicaragua in Latin America, Ethiopia and Tanzania (the Ujaama policy) in Africa, Israel (the kibbutz) in west Asia, and on a minor scale in India.

Socialist collectivization had negative outcomes: coercive pooling of small peasant farms, compulsory requisitioning of produce, large sized production enterprises, farmer's lack of voice in management decisions and hidden as well as explicit forms of socio-economic and gender inequality. Ultimately, they violated all the principles of a human rights approach.

India's experiments with cooperatives started in 1950s-60s and were strongly influenced by China. Cooperatives were seen as a major instrument of rural economic development. However, early attempts to promote joint farming encountered strong resistance from large landowners. Service cooperatives were geographically more widespread but mainly benefited large and medium farmers. At the same time, other types of service cooperatives emerged, which did benefit the small producer, such as Anand, the highly successful milk cooperative in Gujarat, and the sugar cooperatives of Maharashtra. Although these are often called "producers" cooperatives, in fact, they didn't undertake joint production but only joint marketing of individual producer's goods. In the backdrop of the challenges faced by the cooperatives and in the context of fragmented farm holdings, FPCs emerged as an alternative institution (Agarwal 2018).

Boons and banes of Collectives

Group approach helps small and marginal farmers in undertaking greater investments by pooling of financial resources. For small and marginal farmers with fragmented holdings, it is not economically viable to invest in tube wells or machinery such as tractors. Group approach can also increase market access to land.

By pooling financial resources and negotiating jointly, groups can prove to be more effective than individuals for purchasing or leasing in land. This would also benefit women, who lack the funds to operate effectively in land markets. Group farming involves higher level of cooperation than joint investment in inputs. It can also bring greater productivity gains and social empowerment as compared with individual production units, for several reasons. The risk of farming can spread among the members through group farming. Cultivating in group, farmers would be in a better place to experiment with higher value, more risk-prone crops with greater returns. It would give greater scope for crop diversification since a collective pool of land is more likely to have soil variety. Land pooling could increase the cultivable area since space utilized for boundaries and bunds could be saved. Joint cultivation allows better management and sharing of labour resource.

Farmers collectivity would make them more socially empowered. Farmers have access to formal credit, inputs and information. Also, cooperative risk-pooling through joint liability can enhance the borrower's credit worthiness. Groups are better placed than individuals to deal with short-term

shocks such as price volatility and long-term disasters due to climate change. Hence collectivity offers better opportunities than individual enterprises.

However, there is a need to overcome the classic problem of free riding, such as work shirking in group cultivation. The success of group farming always depends on socio-economic homogeneity which would help the people to know each other, can enforce penalties for shirkers through weekly meetings, management committees, or other methods, and also exert moral pressure for compliance (Agarwal 2018).

Steps in establishment of Collectives

a. Identifying the need for group establishment

This can be initiated by the development agents or extension workers who work with farmers or farmers themselves.

1. Identifying farmers with same interest or same problem, organizing meetings for them.
2. Identifying the problems by the SWOT method (Strengths, Weaknesses, Opportunities, and Threats). This should be done by addressing different components of the local farming systems in order to find which needs priority intervention.
3. Discussing for solutions and ways to solve them in a group.

b. Formulation of group objectives

Objective formulation gives a purpose for the group. This provides a framework of action plan and to achieve desired results.

The results should be presented for the whole group and farmers select a limited number of clusters according to their priorities. These main problems are converted into objectives. Formulated objectives should be reproduced before each new planning session. This gives group members the opportunity to update or change their objectives based on new factors.

c. Group organization

Group should make its own rules and regulations, which determine common basic principles to be followed during group activities. Members decide how often and where the group meets, making a schedule for financial contribution.

The group should elect a management board, whose responsibility is to keep the group members mobilized, to ensure that the group achieves its objectives and progressively develops its capacity, scope, and range of action.

d. Activity planning

Groups make detailed plan of operations before each cropping season. Planning is based on objectives that have been formulated already. In the plan, responsibilities are assigned by setting up a calendar.

e. Internal monitoring and evaluation

The group records regularly the progress made during period of implementation. Each time it specifies the next step and decides of the appropriate amendments to make, whenever needed. At the end of the period, group members review and assess the obtained results to decide on the follow-up to be given. The evaluation involves implementation of the group's initial plan, improvement of the member's technical knowledge and with the group's organizational development. Group self-evaluation can be done at the end of each cropping season.

Factors influencing development and sustainability of collectives

Group leaders who are enthusiastic with management capabilities are necessary for the success of a group.

- Farmers should join and participate in the group voluntarily with good understanding of objectives and activities. Any forced or false expectations lead to negative effect on the motivation and active participation.
- A group should be organized from the bottom level where farmers take initiatives themselves, which could increase the trust among the farmers.
- Number of members in each group should be optimum to carry out activities of common interest. Once the desired objectives are achieved, need based new objectives should be framed.
- The group should involve in diverse activities for members as soon as management board is able to manage a group with a single interest. Economic activities should be initiated through mutual savings fund to provide members with cheap credit. Collective action in procurement of inputs, carrying out intercultural activities, harvesting and marketing of the produce can reduce cost of production.
- Group meetings should be conducted regularly providing information on technical aspects, fund management, prices and markets, government policies, and problems of members are discussed and solutions are to be sought.

- Official recognition of group by the village authorities helps the group to get easier access to services like credit, late payments for inputs etc.
- If a large organization takes in charge of the group (Farmer Organizations, NGO, women union), then it helps in better recognition in the bureaucratic system and realizing their objectives.
- Support from institutional agencies likes agriculture departments and research stations providing technical support is essential for success of group farming activities. Services like banking facilities and other suppliers of credit when needed as well as better telecommunications, water supply and transport systems also should be provided (Nguyet, 2002).

Objectives

1. Study the operational activities carried by farmer's collectives.
2. Identify the constrains faced by farmers in collectives.

Research Methodology

Locale of the study

The study is conducted in the southernmost state of the country i.e. in Kerala, fondly known as 'God's own country'. The main crop grown in the state is paddy followed by cash crops like coconut, areca nut, black pepper, rubber, cardamom etc. Adoption of perennial trade dependent cash crops by farmers has led to limited flexibility in cropping pattern which is described as perennial paradox in Kerala's agriculture sector (Tharian, 2017).

In Kerala, 99.09 per cent of famers are small and marginal i.e. land holding upto 2 ha (Agriculture Census 2015-16). Kerala state lacks organized agricultural marketing system, market related infrastructure which results in a poor market information and market intelligence. The main reason why agricultural market related investments are taken is due to lack of APMC act in the state (NIAM, 2012).

Profitability of crops has been declining due to shortage of labour, high wage rate, higher land value, uneconomic size of operational holding and lack of proper marketing system. There are several unique group farming models adopted by the government of Kerala to surpass the constraints in farming. The following farmer groups are studied:

1. JLG (Joint Liability Group) in Kudumbashree
2. SKSs (Swasraya Karshaka Samithi) in Vegetable and Fruit Promotion Council of Kerala (VFPCK)
3. Farmer Producer Companies (FPCs)

Sampling procedure – Purposive sampling is carried out for selection of the samples.

1. **Kudumbasree –** JLGs in Ernakulam district
    a. Haritham JLG, Vaniyamkulam, Thrissur
    b. Paviyam JLG, Panagad, Kozhikode
    c. Omega JLG, Nadathara, Thrissur,

2. **VFPCK –** SHGs in Ernakulam district
    a. SKS, Elavanchery , Palakkad
    b. SKS, Alagad, Thrissur
    c. SKS, Mazhuvannur, Ernakulam

3. **FPCs**
    a. Indian Organic Farmers, Aluva, Ernakulaam

b. Kodungallur Coconut Farmer Producer Company, Thrissur

c. Thennala Agro Farmers Producer Company Ltd, Malappuram

Anaylsis

A. Operational activities – Descriptive research method was used for carrying out the case study. A prior investigation of the selected samples is carried out before survey. The formation, characteristics, activities, problems of each farmer collective was studied using a well-structured interview schedule.

B. Constraints experienced in group farming– Garrett ranking

Different constraints experienced by farmer collectives were identified and respondents were asked to rank the identified problems. Ten farmers were randomly selected from each collective for constraint analysis. In this method, the rank assigned to different constraints were transformed into percentage using the formula,

$$\text{Per cent position} = \frac{100\,(R_{ij} - 0.5)}{N_{ij}}$$

Where,

R_{ij} - Rank given for i^{th} factor by j^{th} individual

N_{ij} - Number of factors ranked by j^{th} individual

Here 0.5 is subtracted from each rank because the rank is an interval on a scale and its midpoint best represents the interval. The percentage positions are transformed into scores on a scale of 100 points referring to the table given by Garrett and Woodworth (1969). From the scores so obtained, the mean score level was derived and constraints were ranked based on the mean score level.

Results and Discussion

1. Operational activities

A. Kudumbashree

Kudumbashree is a joint programme of the Government of Kerala and NABARD implemented through Community Development Societies (CDSs) of poor women, launched on 17th May 1998. It serves as the community wing of Local Governments and formally registered as the "State Poverty Eradication Mission" (SPEM), a society registered under the Travancore Kochi Literary, Scientific and Charitable Societies Act 1955.

- *Neighbourhood Groups (NHGs) - Groups of 10-20 women of the same neighborhood form base of this structure.*
- *Area Development Society (ADS)- Federation of NHGs within the panchayat.*
- *Community Development Society (CDS) – Registered Society as the federation of ADS within the panchayat.*

Kudumbashree has community organization of Neighborhood Groups (NHGs) of women in Kerala which is known as a successful strategy for the empowerment of women in rural and urban areas. Women through these NHGs work on a range of issues such as health, nutrition, agriculture, etc. besides income generation activities and seeking micro credit.

Under Mahila Kisan Sashaktikaran Pariyojana (MKSP), collective farming activities are organized by JLGs (Joint Liability Group) such as:

- **Organic farming -** Promoting organic farming and agricultural commodities with organic certification by JLGs group of 4 to 10 undertaking farm livelihood activities.
- **Plant nursery -** Attaining self-sufficiency on demand of the propagation material for Kudumbashree, supply of best quality seedlings and saplings to all at reasonable price and uniform throughout Kerala. Planting materials including vegetables, fruit trees, ornamental plants and common trees developed through the latest propagation methods are sold in the brand name 'Jaivika'.
- **Value addition units –** Value addition in coconut and banana by ensuring better income generation for the women farmers through systematic interventions in collectivization, procurement, processing and marketing of the agricultural products.
- **Passion fruit cultivation -** Aims to popularize the passion fruit cultivation throughout Kerala in view of the spreading acceptance and high returns of passion fruit.
- **Intensive banana Farming -** Aims to avail maximum profit to the farmers from the Onam market by marketing of raw banana as well as its value added products.

- **Fallow-Less Village -** to change the fallow unproductive lands into cultivable lands for enhancing overall agricultural production and productivity. Fallow lands under each CDS are mapped and cultivation carried out in convergence with GPs, MNREGS and Agriculture Department. Paddy lands are given thrust under this programme.
- **Sanjeevani (Agri Therapy) -** Kudumbashree initiated the Disability Mainstreaming Program namely 'BUDs'. To avoid the sin of labeling and stigmatizing the mentally challenged, the school was named as 'BUDs'. This programme envisages mental and physical development of the individuals BUDs and BRCs (Buds Rehabilitation Centers) through vegetable cultivation. In this project, a minimum of 2 cents of land is cultivated by the students. These lands can be either school premises or adjacent lands used by the JLG groups. A training session in order to cover the supply of inputs is done at the rate of 5000 per school. A master is assigned the job of managing the plot who visits the plot every week and guides the students.
- **Smart Agri Village -** Smart Agri Villages (SAV) are the important models with sustainable and self-reliant farming systems that includes all integrated approaches for ventilating a multitude of concepts viz., poverty reduction, food and nutritional security, natural resource conservation, livelihood diversification through agri-preneurships etc. This broader perceptive gives limitless opportunities ranging from innovative enterprises to geographical indexing of products, let alone farm tourism.
- **Tribal JLGs and Tribal JEVA -** Formation of JEVA marked a mile stone in entrepreneurial guidance and evaluation in Kudumbashree agricultural interventions. This project for scale-up and strengthens the activities in the poorest sections of the community.
- **Medicinal Plant Cultivation -** Encouraging medicinal plants cultivation to meet the accelerating demand for Ayurvedic products in India. The Medicinal plant related trade in India is 1000cr per year. Only 10 per cent of medicinal plants are obtained from cultivated sources whereas the main collection is from the wild. Large scale increase in sales for Ayurvedic and Herbal FMCG products in India (Patanjali Ayurved, Himalaya, Dabur, etc.), people demand alternative medicines for many lifestyle disorders and increase in India's exports of raw herbs and herbal products in the past 10 years, led to implementation this project.
- **Paddy Producer Company –** Establishment of 10 paddy collectives in the state and formation of an apex body for these producer companies. Revolving funds were given at Rs. 40/kg to these PCs for procurement and marketing, along with infrastructure funds.
- **Producer Company –** There are three producer companies formed under Kudumbashree; Kannur Goat Farmers Producer Company, Thennala Agro Producer Company, Malappuaram and Imashree Milk Producer Company. Idukki. Kannur Goat Farmers Producer Company is a value chain project in animal husbandry aimed at increasing farmer's revenue through sale of good breed goats, feed supply to farmers, providing trainings to goat farmers and making them aware about scientific feeding, scientific breeding, insurance and other related activities. Thennala Agro Farmer's Producer Company is owned by Kudumbashree farmers

of Thennala Panchayat, Malappuram district. The main activities are procuring organic paddy, processing and selling rice products at competitive rates. The company has made a tie-up with many agencies across the state for marketing rice and rice products. Imashree Milk Producer Company ltd. is owned by Kudumbashree women dairy farmers of Nedumkandam Block- Idukki district. The initial training programmes for the beneficiaries were given with the support of ATMA (Agricultural Technology Management Agency). The company is involved in reducing the production cost of milk. The company in dealership of Kerala Feeds supplies cattle feed to member farmers at lower rates. The company provides trainings to the member farmers in scientific cattle rearing and produces value added products and bio manures at cluster level.

B. Haritham JLG, Vaniyamkulam, Palakakad

The JLG was formed in 2010 with 4 members, initially cultivating vegetables in 48 cents which was a huge success. So, this made them passionate in farming. They extended the area of farming by taking 12 acres of land in lease for Rs.50,000. They started cultivating bitter guard, beans, cucumber, ash guard, pumpkin, ladies finger, and ivy guard organically. Mrs. Mercy George the leader of the group was the best master farmer from Palakkad. It was her initiative to diversify farming in apiculture, animal husbandry, fishing, mushroom cultivation and bio fertilizer production. They got profit of 5.5 lakhs in 2018 from farming activities.

They received funding and training from Kudumbashree for seed production and started seed production of ridge gourd, bottle gourd, bitter gourd, chili- seeds and ivy gourd. They collected seeds from Kerala Agricultural University and VFPCK, Alathur. They have planted sorghum along the border of the farm for culturing *mycorrhiza in the roots*. The sorghum plant, when fully grown uprooted, its roots are used as mycorrhizal *inoculums while planting seedlings.*

They are growing fishes like Katla, Mrigaya, Johu and Nutter which is sold at Rs. 300/Kg. Apiculture is also carried out and the honey collected is sold. In the field of animal husbandry, rabbits are reared and sold.

They also prepare bio-pharmacy products like herbal Kunabajala and sell it in the Krishi Bhavan. Preparations of vermicompost extracts, Trichoderma inoculation, fish amino acid and egg amino acid are used as nutrient supplements for plants. Value added products like candy, jam, and jelly are also prepared and sold through Kudumbashree.

They were capable of doing all these activities, by regularly attending training programs conducted by Kudumbashree and Krishi Bhavan. They were enthusiastic in trying all their knowledge in the field. Their conscious effort in learning new trends in agriculture has made them more successful.

They sell their produce in the local market and VFPCK. They say that most times they do not get a good price.

The capital for their initiatives were linkage loan from Co-operative bank, interest subsidy and incentives from Kudumbashree. Motivations from Kudumbashree officials helped them in being more successful. They were selected as the best farm school in 2014. The activities of these women are really appreciable and a model exhibiting diversification in agriculture.

C. Omegha JLG, Nadathara, Thrissur

The Omegha JLG was formed in 2010 initially with 6 members. They started farming under the initiative of Kudumbashree by identifying 12 acres of fallow land for cultivation. The lease amount of the land is Rs. 10,000 in a year. 'The owners have confidence in giving the land to us as we are Kudumbashree members,' says Sherly Babu, the master farmer of the JLG. They grow Bitter guard, Snake Guard, Bottle Guard, Green Pea, Green Chilly, Yam and Pumpkin.

They were successful in farming activities because of cooperation and collective action of the members. They feel that traditional knowledge in cultivation is more important.

They purchase hybrid vegetable seeds from Krishi Bhavan and Kerala Agricultural University and prefer growing hybrid varieties over indigenous as they could get more yield. In case of any pest or disease attack in the farm, they approach Krishi Bhavan officers for control members. They receive trainings and incentives from Krishi Bhavan on cultivation of crops. Kudumbashree officers regularly visit the farms and provide necessary suggestions. Recently they formed one more JLG 'Alpha' by two members from their group and two from outside as they could extend the area under cultivation.

They carry out inorganic farming practices as they are mainly focused on marketing larger quantity of produce. Labour cost is high for the pandal system of cultivation, but they feel when JLG members join labourers in cultivation, it is done more efficiently.

They used to sell their produce through VFPCK and clusters in Kudumbashree. They produce 1500 kgs of vegetables. Due to floods in the previous year, they got less yield and their profit was 2.5 lakhs. Prior to the floods, their revenue was 6 lakhs per year from 12.5 acres. They have proved that agriculture is a profitable enterprise when carried out collectively with passion.

D. Pavizham JLG, Panangad, Kozhikode

Pavizham JLG is a six member group established on 16th February of 2011. Kudumbashree motivated its members who were interested in farming and they formed the group. Initially, they

started cultivating banana and now, they cultivate banana, paddy, tapioca, turmeric and vegetables in 9 acres of leased land.

They receive trainings from Krishi Bhavan on selection of good planting material, pest and disease management, vegetable cultivation practices, use of pheromone traps, organic pesticides and preparation of bio- fertilizers like fish amino acid.

Agriculture officer from Krishi Bhavan regularly visits the farm and provides necessary instructions in cultivation. They get seedlings chili, okra, tomato, drumstick and fertilizers from Panchayat. They got a profit of Rs. 25,000 in 2018 and had severe losses due to floods in Kerala, 2018. Attack of wild animals is also a problem in cultivation.

The members of this group carry harvested vegetables in trolleys to sell at the doorsteps. Since there is no market for selling paddy, it is distributed to family members and straw is sold as cattle feed. They produce different value added products of rice like rice flour and sell in the Onam market organized by Kudumbashree. They look forward for processing facilities from Kudumbashree, so that they can sell their produce.

2. Vegetable and fruit promotion council of Kerala (VFPCK)

Kerala Horticulture Development Programme (KHDP) was started in 1993 with a financial assistance of 130 crores from European Union and Government of Kerala for promoting fruits and vegetable production in Kerala and to study viability of introducing Self Help Group (SHG) in agriculture sector. Later, it was named as Vegetable and Fruit Promotion Council of Kerala (VFPCK). VFPCK is a company registered under section 25 of Indian Companies Act 1956, working with the objective to improve the livelihood of vegetable and fruit farmers by empowering them to take vegetable and fruit cultivation, value addition and marketing as a profitable venture in a sustainable way. The Self Help Groups (SHGs) form basic units for all the interventions like extension, rural credit, group marketing, Participatory Technology Development (PTD), value additions and exports.

Farmers are major stakeholders of the company whereas government and financial institutions are the other major shareholders. Self Help Groups of farmers constitute 50% of shares followed by government of Kerala by 30% and other related institutions by 20% of VFPCK's shares. VFPCK is managed by a result-oriented multidisciplinary team of professionals. The Director Board has 11 members who are chaired by the Minister for Agriculture, Government of Kerala, and acts as the governing body of the Council. The board members include senior government officials like Agricultural Production Commissioner, Director of Agriculture, Secretary (Finance), Chief Executive Officer of VFPCK, four people including a woman are elected from SHGs, one representative from national agency in horticulture and one representative of participating banks on rotation. VFPCK headquarters is at Kakkanad, Kochi.

Thrust Areas

Self Help Group

Self Help Groups (SHGs) which are formed voluntarily by 15-20 farmers, acts as a backbone of VFPCK. SHGs are farmers with common objectives, tasks, group identities and neighborhood identified and formed into a group. In this system, all members work together, discuss problems and utilize opportunities through participatory action after co-operative decision making process for the overall development of members. The Council moulds SHGs as the basic local institutional unit for initiating innovative interventions in horticulture. At present, there are nearly 9540 SHGs and 1, 89,902 farmers in the council.

SHG acts as a basic platform for better social interaction, collective bargaining, quality input sourcing, advanced production technology and production planning, micro finance, developing farmer market, problem solving and total empowerment of farmers. Group interaction helps in better recognition of farmers in the group i.e. the officers can easily identify each farmer by discussing in the group.

Features of SHGs

- **Master Farmers** - Three farmer leaders are selected in each SHG and are trained for leading each group. Information dissemination is done through master farmers and they guide farmers in the areas of production, credit and marketing. SHG membership helps farmers access to credit, training and to get technical advice from the Council staff.
- **Office-less extension -** The unique feature of VFPCK is office-less extension through frequent farm and home visits and mass awareness programmes like campaigns and demonstrations. The extension officers of VFPCK regularly visit the farmer's field and provide necessary technical advice and leadership support. The assistant manager in each SKS is appointed by VFPCK and the committee members employ an office secretary and supporting staff (based on requirement). The committee members are formed by master farmers of each SHG and they elect the president for each SKS.
- **Group Marketing**- This concept is production center oriented and farmer participatory in nature. A field Centre is formed by a group of 7 to 15 neighboring SHGs where the farmers bring their produce to a common place for marketing. Traders come at the Field Centers and this increases the bargaining power of the farmers. The VFPCK Market Information Centre (MIC) provides daily market prices of banana and other vegetables in different markets of Kerala and neighboring states. Initially VFPCK provides account books and platform weighing scale to Field Centers. After evaluating the performance at different stages, FCs are elevated to Swasraya Karshaka Samithis (SKS). They are supported by

facilities like additional platform weighing scale, telephone, land, building and expense reimbursement for a year.

- **Participatory Credit-** The credit package of VFPCK helps farmers in easy access, adequate and timely credit to farmers. This credit package extends credit support to leased land farmers too. VFPCK and 12 banks in the state signed MoU for disbursement of credit to farmers. A participatory credit planning session is carried out by SHG to assess the credit worthiness and requirements of its members.
- **Participatory Technology Development (PTD)** - It is a novel methodology for technology development and refinement with farmer participation adopted by VFPCK. It helps in enhancing experimental capacities of the farmers through participatory approach and farmers are trained in solving problem themselves. Hence farmers play a key role in technology development and its diffusion.

Extension Programmes

In VFPCK, the extension approach is office-less extension, frequent farm and home visits by Managers, Deputy Managers and Assistant Managers based on a preset schedule and are always accessible to the farmers. They regularly carry out field visits, providing technical advice and other support, helping farmers in assessing and solving the problems. VFPCK functions are different from traditional extension methods where information dissemination is routed through the Master Farmers and transfer of technology at farmers' door steps. The highlights of VFPCK extension are:

- **Pest and disease surveillance and early warning system –** It provides advance information on the possible occurrences of pest and diseases which help the farmers to take adequate precautionary measures against pest and disease attack. Plots of major crops are identified for pest and disease surveillance in each district and a professionally qualified field staff monitors the plot and the information is recorded in the observation cards regularly. Accordingly, these information and management practices are communicated to the farmers.
- Demonstrations - VFPCK demonstrates proven technologies to farmers and convince them for feasibility and applicability of new practices. Scientifically proven practices like 'Box Method' of vermi composting, preparation of organic pesticides like Neem oil emulsion, Neem oil-castor oil emulsion, safe handling of pesticides, high yielding varieties, improved production technologies etc. are demonstrated to farmers. SHG farmers visit the demonstration plots to get firsthand experience of the techniques and outcomes are discussed in SHG meetings.
- **Campaigns** are organized to create mass awareness and bring collective action. Campaigns help in reaching extension messages to people at the shortest possible time. Need based campaigns are organized in the topics like vermi composting, organic farming,

use of straight fertilizer , use of bio pesticides, control of diseases like kokkan and pseudo stem borer in banana and credit repayment.

Supply of Seeds

Under technical guidance of the seed technologist, vegetable seeds of 19 varieties of high yielding crops suitable to the agro climatic conditions of the state are produced by 104 trained seed growers. The seed processing plant established at Alathur, Palakkad is one of the best Private Participatory (PPP) model which can achieve best results. This unit has harmonious and long standing relationship with the farmers of Chittur Taluk of Palakkad over the past 14 years. This unit is widely acknowledged as the only centre involved in commercial production of vegetable seeds in Kerala and working in economically viable manner.

Unique features of VFPCK Seed Production Programme are seed production without formal contract, major share of vegetable seed production in public sector, competitive price, fully fledged seed testing lab exclusive for vegetables, well trained trustworthy and efficient seed growers, promotes high yielding varieties, maintains genetic and physical purity of seeds and VFPCK seeds are produced by farmers for the farmers themselves.

Seed Training Institute

Institute works with the mission to achieve the goal set by the Government of Kerala in attaining a food secure state. Live demonstration models of the latest scientific practices in agriculture including permanent pandals, drip irrigation, fertigation, precision farming, and cultivation under a controlled environment. This center expect to evolve as a common platform where policymakers, scientists, department officials and farmers together.

Planting Materials

VFPCK produces and supplies seedlings in hi-tech seedling production units and supplies to farmers. In addition to the seeds and seedlings, grow bags, pandal materials, pots and pot hangings, manures, fruit plants, banana suckers, tuber crops, ornamental plants, organic manure, bio-pesticides and bio fertilizers are sold at VFPCK Krishi Business Kendra.

Terrace Gardening

It is an urban homestead farming undertaken in the Kochi's corporation area to promote organic vegetable cultivation. It helps in producing farm-fresh vegetables in terraces making each household self-sufficiency in vegetable production. The registered beneficiaries are provided with 25 potted vegetable seedlings for Rs. 3500 and also provide 25 grow bags for Rs. 2500. Throughout

the year, vegetable seedlings are available and officials provide necessary technical guidance during the crop period.

Safe to eat concept

It is an organic farming concept promoted as food materials come with pesticide contamination. VFPCK has included organic farming in the regular programs and Organic Certification is also looked at in the new program.

Tissue Culture Lab

VFPCK has a laboratory producing up to 50,000 tissue culture plants in a month. Tissue culture banana is produced as virus infected suckers have been the biggest enemy of banana farmers for decades. Varieties suitable for cultivation in Kerala like Nendran, Robusta, Red Banana, Grandnaine variety etc., are propagated.

Training

Trainings are given by pool of multidisciplinary expert team of qualified professionals from different disciplines like agriculture, management and social work who are fully aware of the latest techniques, trends, systems and eco-friendly practices in all the areas of vegetable and fruit cultivation, value addition and marketing. Training is participatory in nature that is achieved through brainstorming sessions, group discussions, participatory analysis, group exercises, and games. Study visits are conducted for staff and farmers to get exposure about national and international agriculture related activities. It enhances the confidence of the participants and motivates them to experiment new things and adopt new techniques.

Credit Package

VFPCK credit package is formed to support commercial fruit and vegetable cultivation in Kerala. The main features of VFPCK credit is the involvement of farmers in all stages from credit planning to repayment, credit availability to lease land cultivators, quick disbursement of credit within 10 days of application, assistance of VFPCK staff in screening and monitoring genuineness, beneficial to all stakeholders, automatic credit linkage insurance for crops, peer pressure and campaigns for better repayment. Package implementation schedule includes SHG formation, training on credit package, participatory credit planning, joint inspection, credit appraisal, sanction and delivery, repayment and renewals.

Insurance Package

VFPCK has implemented various insurance packages like crop insurance, health insurance scheme for farmers, life insurance scheme for farmers etc. in association with insurance agencies. For insurance coverage of banana, vegetables and tuber crops, VFPCK had made a tie-up with National Insurance Company Ltd. All varieties of banana, vegetables (pandal and non-pandal) and tuber crops (amorphophallus, colocasia, yams and tapioca) cultivated by participant farmers of VFPCK are covered under insurance schemes.

Market Information Centre (MIC)

The Market Information Centre (MIC) at the VFPCK headquarters collects market data of vegetables and fruits on a daily basis from 16 wholesale markets in Kerala and 4 other states which is available in VFPCK website. Data collected over the years are analyzed to make reports for various purposes which are sent to newspapers, Farmer Markets (SKS) and other agencies on a daily basis.

Farmer Markets (Swasraya Karshaka Samithi)

Through groups, marketing provides SHG farmers better access to markets and therefore a greater share in the consumer's rupee. The SKS thus promotes trading between farmers and traders by improving their bargaining power through better access with markets and traders. In group marketing, 10-15 Self Help Groups (SHGs) with 250-300 farmers, come together under the banner of Swasarya Karshaka Samithi (SKS) and collectively trade their produce. Since there is a good volume of produce, farmers are in a better position to negotiate with the wholesalers in order to 'optimize their returns'. Traders prefer to buy from the Swasarya Karshaka Samithis as there is a large volume of produce which in turn reduces transportation costs and saves time. Weighing is done by farmers ensuring transparency and accuracy. They also load/unload the produce which ensures careful handling of the produce. There is always assured and timely repayment as a collective effort in recovery from among debtor traders. The SKS, through collective action, facilitates the trading of produce between farmers and traders and improves their bargaining power through better access with markets and traders through collective action.

Retail outlets

VFPCK has initiated retail outlets in all districts either in a franchisee mode or under SKS consortium in the name of **'Sasya'**. There is a wide gap between wholesale price and retail price of fruits and vegetables, So, VFPCK aims to fill this gap thereby avoiding intermediate and transferring this margin to the consumers. Through these retail outlets, farm-fresh produce of good quality is sold to consumers at a reasonable price. Presently there are 147 'Sasya' outlets are working throughout Kerala.

Weather Data

VFPCK has a network of Automatic Weather Stations (AWS) in the state. Weather data from these stations is made available round-the-clock at VFPCK headquarters through GPRS/GSM communication facility. The data is analyzed on a daily basis and updated in the VFPCK website. In collaboration with the Indian Meteorological Department (IMD) and the Kerala Agricultural University, weather data collected by VFPCK is used for preparing weather reports and farmer advisory bulletins.

Risk fund

It is for the protection of farmers during price risk that every year they should pay Rs. 1000, and they can get upto Rs. 2,500 if the price of commodity goes below the market. The Minimum Support Price is a collective decision of presidents of all SKS of Palakkad district. Government will allot a specific amount to each SKS as risk fund and it is distributed proportionately to the quantity sold. Seeds requirement for each season is also met, by making bulk orders from seed processing unit, Alathur and distributing it to the farmers.

Loans at 2 per cent interest

Farmers can take upto 1 lakh from nationalized banks for cultivating 1 acre land (owned or leased land) at 7 per cent interest. Government provides a subsidy of 3 per cent and VFPCK provides 2 per cent subsidy for farmers who renew their loans at right time.

V- Software (Vipani software)

This is a software developed by VFPCK for maintaining the details of the members in each SKS. Since this software is connected with the head office, all the market details of each farmer, produce sold, input purchased etc. are easily accessible.

Sales promotion incentive

It is given to farmers who sell more than 100 kg of produce in a year; Rs. 1 per kg is given as an incentive.

A. Swasraya Karshaka Samithi (SKS), Elavanchery, Palakkad

Swasraya Karshaka Samithi (SKS), Elavanchery was the best VFPCK in 2018-19. Elavanchery is the largest vegetable producing area with peas, bitter gourd, bottle gourd etc. The activities of SKS are well organized and there are around 200 farmers grouped into 16 Self Help Groups. The membership fee for joining the SKS is Rs. 5000 and they sold 3433 tonnes of produce worth Rs. 6, 96, 59,776 in 2018-19.

For marketing of the produce, farmers with more than 10 kg of produce, come to SKS office one day before and write down their name, address and quantity of produce in the order book. The president of SKS shares this information with the traders. On the next day, traders send a vehicle to farmers' fields and collect the graded produce after weighing it. The collected produce is then bought to the SKS. At SKS separate bills are made for the farmer (purchase bill) and trader (sales bill) where the price of the produce is fixed by the SKS. Payments will be delayed 2-3 days as a huge volume of produce is transacted. They carry out average pricing for each commodity and it is mandatory that all the members must sell the produce in the SKS. In case of a glut in the market, HORTICORP procures the produce. All the transactions are computerized using software called Vipani software (V- soft).

The majority of the farmers in this SKS are seed farmers as they carry out seed production of vegetables of varieties released by Kerala Agricultural University and sell it to the seed processing unit of VFPCK, Alathur, which is then sorted, processed, and distributed as VFPCK seeds. VFPCK staff members provide regular training and assistance on decision making in seed production.

Fertilizers and pesticides are distributed through SKS by those sellers who have taken license under the SKS. The cost of purchasing the inputs is directly deducted from the money that had to be paid to farmers in the previous sale of produce.

They follow Hi-tech vegetable cultivation through drip irrigation, fertigation, mulching and permanent pandals. Need based trainings on cultivation practices, management of new pest, application of pesticides and demonstrations are provided for the farmers. Participatory Technology Development (PTD) programmes are conducted by comparison of indigenous Ash gourd KAU local and Thara, testing suitability for growing in a particular locality. Innovative technologies developed by farmers are tested by SKS and farmers are given Rs. 10,000 as incentive for motivating other farmers.

The SKS has a tie-up with the Punjab National Bank (the nearest bank) where the purchase bills of the farmers are submitted in the bank and money is deducted accordingly for the farmers who have taken loans from the bank. Hence there is prompt repayment and timely renewal of loans.

Farmers do not have any issue in marketing as all the activities from seed to market are well coordinated. There is unity among the members that is appreciable as they follow the decisions made by the president of SKS.

B. Swasraya Karshaka Samithi (SKS), Alagad, Thrissur

The SKS was established in 1998 and has 400 farmers and SHGs presently. The membership fee to join SKS is Rs.400. The main crops sold here are banana and vegetables. The farm produce is

brought and graded by farmers themselves to the SKS. They carry out price-fixing of the produce based on the price at the Thrissur market. They have sold 493.7 MT of produce worth Rs.1, 69, 15,000.

Trainings are given to farmers based on cultivation practices, pest and disease management, adoption of new technology etc. Inputs, both organic (neem cake, bone meal, sterameal, cow dung) and inorganic (urea, potash) and pesticides, are distributed. In the wholesale selling of inputs, profits earned are distributed to the farmers. VFPCK seeds of peas, chili, bottle gourd and bitter guard are distributed to the farmers.

In the Banana special zone scheme of VFPCK, there was 50 per cent subsidy on farm machinery, intercropping, high density banana farming for Banana farmers. It is not compulsory that the member farmers should sell their produce in the SKS.

A security fund is collected from each member i.e. Rs. 1000. In case any member dies, Rs. 20,000 is given to their family as financial support from the fund. Issues related to marketing occur when there is a glut in the market and farmers may not get the price expected. In, such scenario, the unsold produce is transported to the Thrissur market.

C. Swasraya Karshaka Samithi (SKS), Mazhuvannur, Ernakulam

The SKS which was established in 1993, started with 7 groups. Now they have 683 farmers and 27 groups. The membership fee for joining the SKS is Rs.1500. As a farmer brings different produce, each in smaller quantities, an auction is carried out for the better sale of the produce. In 2018-19, they sold 1001 tonnes of produce worth Rs. 3.32,69,991.

Trainings are provided on integrated pest and disease management, especially the use of bio-pesticides and bio-fertilizers focusing on organic farming, training on scientific cultivation of banana. Demonstrations are carried out in the field of indigenous variety Tiruvaniyur snake gourd. Price produce of 20 market transactions in a month is uploaded in AGMARK.

At present, they are providing only organic inputs. According to new laws, the committee members should employ a chemistry or agriculture graduate for selling the licensed fertilizers. Inputs like dolomite, bone meal, vegetable special, and seeds are distributed and supplied to farmers. They also carry out charity activities for school children, patients with chronic diseases and the chief minister's debt relief commission. They also provide awards and scholarships for farmer's children etc.

3. Farmer Producer Company (FPCs)

Farmer Producer Company is a hybrid between cooperative societies and private limited companies, which combines the goodness of cooperatives and efficiency of a corporate company. FPCs are formal rural organizations whose members organize themselves intending to improve farm income through improved production, marketing, and processing activities. Like cooperatives, they have the one-member-one-vote rule, but, unlike them, there is no provision for veto-wielding government representation on the board.

In 2003, Farmer Producer Companies (FPCs), a new form of farmer's collectives emerged under the provision Part-IX-A Chapter-1 of The Companies Act (Singh, 2008). These originations are characterized by formal, autonomous, outward-oriented organizations and can be regarded as a hybrid between private companies and co-operatives (Trebbin, 2014).

They were modeled as an interface between small holder farmers and markets by providing forward and backward linkages. In the initial stages, they faced challenges such as lack of recognition or support of the government, lack of credit facility from banks and difficulties in getting licenses from Agricultural Produce Marketing Committees (APMCs) (Singh, 2008). In 2013, the Government of India formulated a policy guideline for Farmer Producer Organizations (FPCs) in India (GoI, 2008). It put forth the role of center and state government in promoting FPCs and declared FPCs on-par with co-operatives.

Small Farmer Agri-Business Consortium (SFAC), a registered body, was established as a nodal agency for promoting FPCs in India. Later, NABARD started the promotion of FPCs using their Producers' Organization Development and Upliftment Corpus Fund. The Farmer Producer Organizations (FPCs) in the country are gaining momentum. It's almost a decade and a half since the FPCs were formulated in India.

A. Indian Organic farmer Producer Company, Aluva, Ernakulam

India Organic Farmer Producer Company (IOFPCL) is the first organic FPC in India that is owned and managed by farmers. The company was formed by a group of farmers who were carrying out the organic certification process at INDOCERT, an Organic Certification Agency located at Aluva. As a strategy for better marketing of their organic produce, they collectively formed the company under the Companies Act of 1956 in 2004. They faced hurdles initially to get a higher price for organic produce. They attended organic trade fair BIOFACH, Germany, under the sponsorship of Spices Board, Kochi, through which they could get explore better marketing opportunities for Organic produce. Later in 2007, they started exporting their commodity which could assure a higher price.

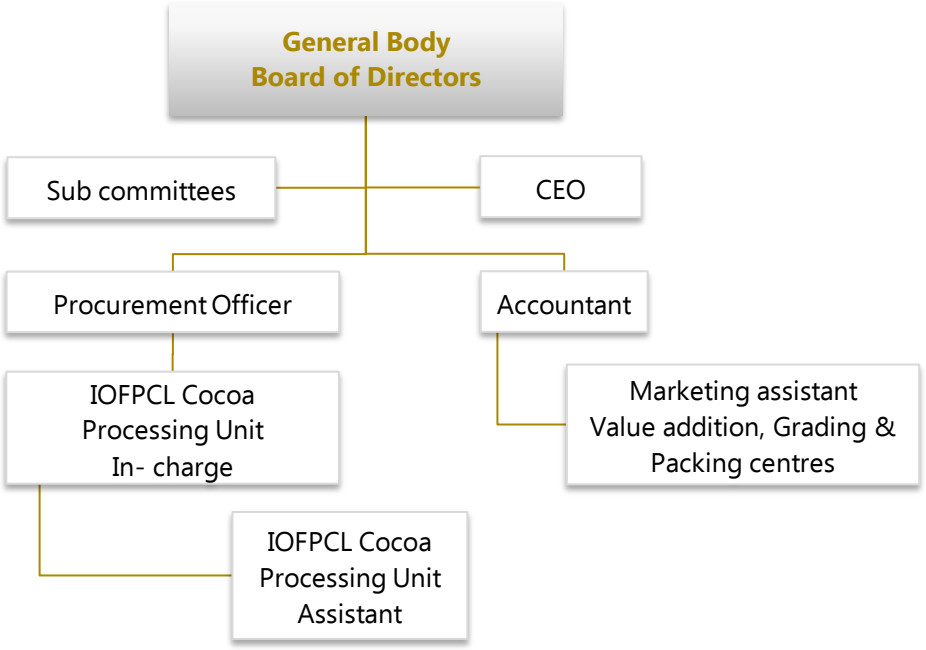

Fig 1. Organizational Structure of the Indian Organic Farmer Producer Company (IOFPCL)

Now, the company is a panacea for the problems experienced by its member farmers in the production, processing, and marketing aspects of organic produce. They market Organic and Fairtrade certified products both in the domestic and international markets. The involvement of IOFPCL in the local market is minimal as the demand for organic certified products is lesser in the domestic market compared to the international market.

The current total area cultivated by the shareholders is mostly rain-fed and is about 12,793 acres with average holding size of 2.98 acres. The company carries out activities like production, processing, and exporting of organic agriculture produce mainly cocoa, coffee, cashew nut, black pepper, white pepper, nutmeg, vanilla, ginger, turmeric, clove, cinnamon, cardamom, and coconut oil sold in the brand name JAIVA.

Farmers who have organic certification as well as those with land under conversion period are also considered for membership. Farmers become a member of the company by taking share, each cost Rs. 1000. In case of group registration, farmers should take a minimum of 10 shares and no limit for the maximum number of shares. At present, there are 552 shareholders and 2108 shares in the company. Based on the number of shares, farmers could sell a proportionate quantity of produce. The voting principle is one vote per member irrespective of the number of shares. Majority of the members carry out group registration as most are small and marginal farmers and the cost for group certification is much less.

Company staff goes directly and purchase products, makes spot payment, after a proper quality check. Quality of the produce is checked at Spices Board, Kochi. Farmers are paid a premium higher price while purchasing the product, hence the profit or turnover is comparatively less, as the company works with the aim to ensure a higher price for farmers. Company takes orders from buyers only if they pay 50 percent of the commodity value in advance and later, procurement of produce from farmers is done. This has increased trust among the member farmers assuring better income.

Since the establishment of the company, they have not received any financial assistance from the government, except a 45 lakhs loan from Nabkisan at 11 percent interest. The interest rate is very high to carry out the activities of a Farmer producer company, says Shiney George, CEO of the company. She added that lack of collateral security is the major constrain to avail bank loans and expanding business.

Cocoa is the major crop marketed and they have their own primary processing unit, whereas processing for other products are leased from other units. Dried cocoa beans are exported to Netherlands and used in the preparation of chocolate brand 'Right Origins chocolate.' This chocolate is launched by Chocolate St. Right Origins Foundation (Non-Profit –ANBI) and co-owned by IOFPCL and uses block chain technology to ensure 100 per cent transparency on its supply chain data. Since this is fairly owned, IOFPCL gets 80 per cent of the profits, unlike conventional Fair Trade where the farmers receive only 8 percent of the total value.

'We believe in fair ownership and not fair trade' IOFPCL

Turnover of the company for 2018-19 is Rs. 2, 03, 55,538.83. Through this, they have carried out fair trade certification activities like providing scholarships for students ensuring welfare of children of member farmers, support for cocoa farmers in buying agro machineries for increasing productivity and training farmers on improved cocoa practices.

Lack of funding and the inability to carry out advertisements for the products are major reasons for poor reach to customers. Recently the company has appointed a marketing consultant and initiated online marketing strategies. They are launching organic chocolates for domestic markets in the near future.

Reasons for success of the company are unwillingness to compromise the quality of the produce, marketing of produce such that farmers get a premium price, and internal recognition of its member farmers.

Interacting with Mrs. Shiney George, CEO of Indian Organic Farmer Producer Company (IOFPCL)

B. Kodungallur Coconut Farmers Producer Company Limited (KCFPC), Thrissur

Kodungallur Coconut Farmers Producer Company Ltd. was established in 2013 under Coconut Development Board (CDB) located at Perinjanam, Kodungallur. Initially, 214 Coconut Producer Societies (CPS) were formed in each ward of a panchayat. First, it is registered under the charitable societies and later in the Coconut Development Board. Then, Coconut Producer Federation (CPF) was formed with 214 such societies. Then, a Coconut Producer Company (CPC) is formed with 12 such federations. Hence, a single farmer producer company represents 12287 farmers. This model of formation of a company gives better acceptance among farmers at the grass- root level. Hence, the company has a three tier organizational structure with Coconut Producer Societies (CPS) at grass root level, followed by Coconut Producer Federation (CPF) at the middle level, and Coconut Producer Company (CPC) as the apex body.

Fig 2. Organizational structure of *Kodungallur* Coconut Farmers Producer Company Limited (KCFPC)

As FPCs fall under the company act, legal procedures are stringent and they spend around 1 lakh rupees of fees for auditing. For FPCs having less turnover, this reduces the profit shared by small and marginal farmers, says Sachidanandan chairman of the company. Company works under one person one vote and proportionate to the quantity sold by each farmer, company profit is shared. The annual turnover of the company in 2018-19 is 1.10 crore.

Initially, Neera was prepared and sold but due to the improper pricing strategy of CDB and less shelf life, the product has less market acceptance. Now they sell different products like coconut oil, coconut vinegar, coconut water, virgin coconut oil, coconut chips and coconut drink (coco vita). Coconut oil is the major product sold and prepared without adding any preservatives which results in better quality and less shelf life. So, coconut oil is processed based on the availability and orders sold through company outlets at different locations and eco-shops.

The unsold neera is processed into coconut jaggery to wastage, but one liter of neera on processing yields only 200ml jaggery, which ultimately increases the price of coconut jaggery to Rs. 1000. Less market promotion is a major reason for lower market penetration of the products.

Trainings are given for the farmers by CDB through on production technology, management of pests and diseases and they conduct study tours. Farmers clubs were formed by District Co-operative Bank and funded by Agricultural Technology Management Agency (ATMA). CDB distributes coconut seedlings to the farmers through the company. Coconut seedlings are propagated in the farmer's field, and famers are given Rs. 25 per seedling. These seedlings are sold at a price of Rs. 250.

Coconut oil is the main oil that is used, produced and consumed in Kerala, yet controversies exist regarding the price and quality of coconut oil sold in different markets. Chairman of Kodungallur Coconut Farmers Company critically explains the coconut processing cost 'they procure coconut from farmers at Rs. 32, one kg raw coconut yields 22 percent oil, approximately the cost of 1litre coconut oil is Rs.162. After processing, the cost of 1L oil is Rs. 187 and with Rs. 8 tax they sell at Rs.195. With just Rs. 25 profit, it is difficult to run the company since we have lower scale of

production. The MRP for the coconut oil is Rs. 248, as the retailer takes Rs. 40 as profit. Hence, they have counter sales for neighboring people at wholesale price of Rs. 210. Hence, we sell at wholesale rate – directly from the company counter.'

The price at which the company sells is very high as there are number of brands selling at Rs.130. This is because there are mixed with adulterants. In 2018, the food safety department banned 170 coconut oil brands in Kerala for using sub-standard oil like palm oil, and most used the brand name 'Kera' to make the consumers believe it's original (The Times of India, 2018).

There should be stringent rules on the quality parameters of coconut oil and the government could procure oil from co-operatives for distribution through the public distribution system and mid–day meals at schools.

C. Thennala – Agro Farmer Producer Company, Malappuram

The Thennala Agro Farmer Producer Company was established on 9th September 2015 by Kudumbashree members of the Thannala panchayat of Malappuram District.

This company was the earnest effort of Ms. Yasmin Arimbra, who worked with the vision of women empowerment. She joined the neighbourhood society of Kudumbashree in 2006 and was elected as the chairperson of the Community Development Society in Thennala Panchayat in the year 2011. There was a need to form an enterprise for the members who had only primary level education and were of the aged group. She recognized that agriculture is the best platform where they could work and organized cluster meetings in '*Padasekhara Samithi*' (organisation of farmers of a locality registered under the law, to promote cultivation of paddy). There was large acreage of paddy fields that were left uncultivated as owners were abroad.

Initially, she carried out organic paddy cultivation herself in 13 acres of land to prove that paddy cultivation is profitable by reducing labour cost with self– participation and was successful in motivating the JLGs. These JLGs were under the support and guidance of NABARD, formed 'Garima Farmers Club' with 500 members.

She provided trainings on organic paddy cultivation and the members started cultivation in leased 126 acres, and at present, increased to 522 acres. The company procured paddy from them at Rs. 22 per Kg, (Rs. 6 higher than the market price) making paddy cultivation more profitable.

They had no idea of marketing strategies, packaging and storage. So, in 2015, they launched their own company 'Thennala Agro Farmer Producer Company' to carry out processing, marketing by avoiding middle man and increasing profits. Initially, Krishi bhavan supplied seeds and fertilizers on subsidy. Kudumbashree also provides technical trainings on paddy cultivation. They carry out

processing in leased units. They carry out processing of paddy only if there is assured orders for purchasing. They sell rice at a price of Rs. 50 Kg. The turnover of the company is around 8.6 lakhs in 2018-19.

They cultivate organic paddy but were ineligible for organic certification as majority of the fields didn't have electricity connection. They have to use petrol pumps for irrigation which could contaminate the paddy fields. Moreover, the paddy field was not a minimum 5 Km distance from conventional farms.

They face difficulties in following the legal procedures of the company. All the members are school or college dropouts who face hurdles in understanding the legal formalities of the company. Moreover, every year they spent around 50,000 rupees from their profits on legal procedures. They are also facing financial constraints in getting loans or government support as the company members do not have any land assets to pledge.

They introduced a new project 'Breakfast cereal' using rice, adding dry fruits, nuts etc. but could not start production due to lack of funding. They look forward to funding from the government and supply of breakfast cereal in Anganwadi schools of the state.

At present, the growth of the company is stagnant because of competitive paddy cultivation groups. 'There is a natural behavior among people to follow, what others have done, once it is found successful' says Yasmin. As the Managing Director of the company, she is facing difficulty in carrying out managerial functions of the company and trying to reduce.

This enterprise has changed the lives of 500 women by providing better employment and social status so that they could support the family. Despite that, they face problems because of low educational levels in marketing of their produce, carrying out legal formalities of the company. Hence, there is a need for support from the government to address these issues.

4. Constrains faced by farmers in Kudumbashree, VFPCK and FPCs

The major problem faced by farmers of Kudumbashree is marketing issues. They are motivated for carrying out cultivation practices. Lack of market, imperfect information on prices and personal constraints of women that restrict themselves in a competitive market are the main reasons. Occurrence of floods in the past years has led to severe crop loss. They lack institutional support as they are not aware of the government schemes and in most cases, they do not get insurance for flood less. The cost of cultivation is also very high due to a high wage rate, and revenue is very less.

Table 1: Constrains faced by farmers of JLGs in Kudumbashree

Sl. No	Constraints	Mean Score	Ranking
1	Marketing constraints	67.50	1
2	Natural disaster (flood)	60.00	2
3	Institutional constraints	50.50	3
4	High cost of production	47.00	4

In VFPCK, the farmers carry out collective marketing of the produce, but collectivization is not carried out in the farming activities. The labour cost (wage rate) in Kerala is very high compared to other states; hence mechanization should be promoted with support from VFPCK. New insurance schemes could be provided for farmers through VFPCK to support them during floods. In most cases, farmers face problems in the identification and management of pests and diseases especially when SHG activity is not prompt. There is a delay in repayment of money by traders and the committee has to force the traders for payment. It is the same situation when HORTICORP procures the produce, there is a delay in payment. In SKS, marketing of the produce is carried out twice or thrice in a week and farmers face difficulty due to lack of storage facilities.

Table 2: Constraints faced by farmers of SHGs in VFPCK

Sl. No	Constraints	Mean Score	Ranking
1	High labour cost	70.50	1
2	Natural disaster (Flood)	58.50	2
3	Pest and disease attack (seasonal variation)	53.00	3
4	Delay in payment	43.00	4
5	Lack of storage facilities	32.00	5

The major constraints faced by FPCs are lack of adequate financial support. The loans are available only at a very high interest rate. FPCs do not have any assets to pledge to avail bank loans. There exit issues of trust among the members to mortgage their land to get bank loans.

Organizational constraints like complexity in legal formalities are also faced by farmers. They have to follow legal formalities when registered as a company and a lot of money is spent on auditing purposes. As it's an organization run by farmers, they find difficulty in following the legal formalities and they will have to pay high for employing CEOs with high qualifications. There are several marketing issues like lack of market information, lack of marketing skills and resistance from traders are experienced. Despite all these problems, farmers also face issues in production due to high cost of labour.

Table 3: Constraints faced by farmers of FPCs

Sl. No	Constraints	Mean Score	Ranking
1	Financial constraints	66.00	1
2	Organizational constraints	55.00	2
3	Marketing constraints	54.80	3
4	Production and labour	50.00	4

Conclusion and Recommendations

In this study, different farmer collectives which are initiated and organized by the government were analyzed. Each of these collectives has different goals, organizational pattern and achievements. Around 99 per cent of the farmers in Kerala are small and marginal farmers; which necessitate the need for unique farmer collectives. These were Kudumbashree, VFPCK, along with Farmer Producer Companies were studied.

Kudumbashree is the inspirational story of women empowerment, where the human resource is mobilized through institutional support. Moreover, this is a solution for under-employment among women. Farming was the best activity that could be carried out by uneducated women. There are many agricultural lands uncultivated as owners of the land are far away. The JLGs themselves find land suitable for cultivation and an appreciable co-operation is involved among the members to carry out activities jointly. The role of the master farmer is very important like in Haritham JLG as they carry out diverse agricultural practices. This has led to financial empowerment, better social status and reducing gender inequality in the agriculture workforce. Based on the constraint, Kudumbashree farmers recommendations made are:

Marketing – Even though the farmers are good at production, but their revenue is very less, sufficient marketing facilities have to be provided. They also have personal constraint; being women to bargain with the traders. They have to be sufficiently trained in carrying the marketing of the produce. The government should take necessary initiatives for the promotion of Kudumbashree products and they could procure produce government hotels, guest house, and mid-day meals at schools.

Institutional support – There is less extension from the Kudumbashree official on the cultivation practices. Training should be given to farmers in a regular and organized way from Krishi Bhavans and KVKs. The farmers should be insured to reduce the impact of crop loss in natural calamities. They should be trained in processing and value addition of the produce as women can do it better and help in getting a better price for their produce.

High cost of production – Kudumbashree can provide inputs on a subsidiary basis, which will reduce the cost of production. Farm mechanization should be promoted by providing machinery in subsidy to reduce the labour cost.

VFPCK has proved its success in marketing agricultural produce by avoiding the middle man and increasing the producer share in consumer rupee. They have office-less extension through the master farmers. Beyond the concept of an institutional system, the marketing and extension activities are done through the farmers. This has led to better participation, problem solving and co-operation among the members. There is appreciable unity among the members in the decision-

making process due to its grass root level extension system. The farmers have a better voice in price fixation of their produce. The activities of VFPCK offset the price fluctuations, market glut and exploitation by middlemen. The SKS Elavanchery is the best model, where the farmers should compulsory selling and the average pricing of the produce is done. The constraint analysis reveals that there is a large scope in improving the activities through:

Providing storage and processing facility – VFPCK is a bulking point of the farmers produce, proper storage facilities should be provided to reduce post-harvest losses. Value addition can help in ensuring better price of the produce and it's useful at times of market glut. They could also export their produce, which could fetch a higher price.

Collective farming – Farmers carry out only collective marketing, they could pool their resources like land and labour which could reduce the cost of cultivation.

Regulations for prompt repayment – There should be strict laws by the government for ensuring prompt repayment by the traders. Delay in payments will make the farmer incapable of carrying out the cultivation activities.

FPCs are promoted by the government of India, where the farmer collectives are registered under the Companies Act. The FPCs are hybrid of co-operatives and private limited companies. This concept of farmer collective was formed to ensure better forward and backward linkage. There are funding agencies like NABARD, SFAC for FPCs. From the FPCs surveyed, it is revealed that the concept of FPCs is fully adaptable in the present Indian situation as they face many problems. IOFPCL had a better pricing strategy for consumers from high-income groups and they could export their commodity ensuring a better price. The organizational structure of CDB gives acceptance at the grass-root level. Recommendations for the FPCs are:

A central agency for the promotion of Producer Companies (PCs) with the objective of awareness creation on the concept and practices of the same among farmer producers and other stakeholders and providing adequate financial support.

Reframing the laws that companies have to follow when registered under the Companies Act. The legal formalities are complex and hiders for the efficient working of the company. As an organization run by uneducated farmers, they find difficulty in fulfilling the legal formalities. They have to employ CEOs and professionals which is not possible for companies with less turnover.

Reducing the cost of production by pooling the land, labour resources and farm mechanization could be easily carried out.

Market promotion and advertising should be done for getting a better price. Produce from FPCs should be procured and supplied at government hostels and schools (mid-day meals). Geo-tagging the plot of land is used for cultivation and thus maintaining the traceability of the crop output from the farm until it reaches the consumer. ICT tools and block chain technology should be developed. FPO produce should be branded of and linkages with large companies can ensure assured market. There should be an increased focus on consumers' awareness of quality and safety. The CEOs of the company should be well trained and diploma courses should be given based on the type of FPC.

This research work does not give complete information on farmer collectives and there does not exist a perfect model for farmer collectives and they are always contextual. It gives an idea, how each collective is formed and its organizational activities, which could serve as a best model for empowering small and marginal farmers.

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