

Promoting Farmers' Producer Organizations in Uttar Pradesh

Vedprakash Singh and Rohit Jadhav
December 2019.





RAJIV GANDHI
INSTITUTE FOR CONTEMPORARY STUDIES

Author

Vedprakash Singh
Rohit Jadhav

Concept and Review

Vedprakash Singh
Rohit Jadhav

Mr Vijay Mahajan, Director
Rajiv Gandhi Institute for Contemporary Studies, New Delhi

© 2020 Rajiv Gandhi Institute for Contemporary Studies

All rights reserved. This publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or otherwise provided it is used only for educational purposes and it is not for resale, and provided full acknowledgement is given to the Rajiv Gandhi Institute for Contemporary Studies as the original publisher.

Published by:
Rajiv Gandhi Institute for Contemporary Studies, New Delhi

Promoting Farmers' Producer Organizations in Uttar Pradesh

Vedprakash Singh and Rohit Jadhav
December 2019.

Abbreviations

AGM	Annual general meeting
APMC	Agricultural Produce Market Committee
BoD/BoM	Board of directors/ Board of members
CEO	Chief Executive Officer
FIGs	Farmer Interest Groups
FPC	Farmer Producer Companies
FPO	Farmer Producer Organisations
GDP	Gross Domestic Product
HR	Human resources
IFFCO	Indian Farmers Fertilizer Cooperative
MFI	Microfinance Institutions
MSP	Minimum Support Price
NABARD	National Bank for Agriculture and Rural Development
NAFED	National Agricultural Cooperative Marketing Federation of India
NBFC	Non-Banking Financing Company
NCDEX	National Commodity and Derivatives Exchange Limited
NEFT	National Electronics Funds Transfer System
NWR	Negotiable Warehouse Receipts
PGs	Producer Groups
PO	Producer Organisation
PRODUCE	Producer Development and Upliftment Corpus
RI	Resource Institutions
ROC	Registrar of Companies
RRB	Regional Rural Banks
SFAC	Small Farmers' Agribusiness Consortium
SHGs	Self-help groups
SMHF	Small and Marginal Holding Farmer
UPBSN	Uttar Pradesh Bhumi Sudhaar Nigam
VLIs	Village level institutions
WUGs	Water User Groups

Acknowledgement

This report has been prepared by Vedprakash Singh (Consultant) and assisted by Rohit Jadhav. The team is extremely grateful to Mr. Vijay Mahajan (CEO of Rajiv Gandhi Foundation; Director of Rajiv Gandhi Institute of Contemporary Studies) to give us the opportunity to conduct this project. This project would not have been complete or significant without Mr. Vijay Mahajan's expert guidance and constant support at each and every stage.

The team extends its gratitude to Mr. Rajnikant Prasad (Assistant Vice President, BASIX) and his team at BASIX to help us out in the preliminary study, support in planning field visits and collecting secondary data collection. They had an instrumental role in giving various insights relevant to the study context.

There were consultations taken from domain experts like Mr. Pravesh Sharma (ex-SFAC head), Mr. Krishan Jindal (MD, NABCONS), Mr. Sudhanshu Trivedi, Mr. Aman Khanna (Asian Development Bank), Dr. Ageya Tripathi (NRLM Consultant), Mr. Kuldeep Solanki (Inerim CEO- GUJPRO, Ahmedabad) and Mr. Yogesh Dwivedi (Madhyabharat Consortium of FPCs, Bhopal). The suggestions and observations of the experts were significant in structuring the framework of the study and also shape the recommendations.

Finally, we are infinitely grateful to the board representatives of the respective 16 FPCs. Without their coordination and support this study would have been incomplete.

Contents

Abbreviations.....	4
Acknowledgement.....	5
Abstract.....	8
1 Introduction	9
1.1 India's Agrarian crisis and Smallholder Producers	9
1.2 Farmers collectives in the Indian context	10
1.3 Problem in the present and future	11
1.4 Overview of Farmers' Producer Organisations in Uttar Pradesh	12
1.4.1 Need for the study	16
1.4.2 Research Objectives.....	17
2 Theoretical Framework.....	18
2.1 Collective action and smallholder producers.....	18
2.1.1 The logic of collective action.....	18
2.1.2 Role of collective action in agriculture.....	20
2.1.3 Capital and capability	23
2.2 FPC experiences from Others States in India.....	25
3 Research Design and Approach.....	28
3.1 Study model.....	28
3.1.1 Framework development.....	28
3.1.2 Field visits.....	29
3.1.3 From findings to recommendations.....	30
3.2 Study area and sampling	30
3.3 Data collection	32
4 Research Findings and Analysis	34
4.1 Business model adopted by the FPCs	34
4.1.1 Input services: Backward linkages	34
4.1.2 Output services: Forward linkages.....	40
4.2 Capability of the FPCs.....	43

4.2.1 Governance	43
4.2.2 Capacity building.....	50
4.3 Capital.....	53
4.3.1 Financial sources and its utilization	53
4.3.2 Business revenue sources.....	55
4.3.3 Requirement of capital	58
5 Key lessons learnt	60
5.1 Viable Business Models Are Yet to Emerge	60
5.2 Building Capabilities of FPCs is a Long Drawn Process	62
5.3 Meeting Capital Needs of FPCs is Proving to Be Diificult	66
6 Recommendations and way ahead.....	68
6.1 FPCs to Reach Viability Need Policy Support and Entrepreneurship.....	68
6.2 FPCs Need to Build Capabilities Step by Step, Learning from Many Coaches.....	71
6.3 Accessing Capital for FPCs	76
7 Conclusion	80
Works Cited.....	82
Appendix A.....	83

Abstract

In India, the agrarian crisis has been on a steady rise and has severely impacted the sector which supports livelihood of more than half of the workforce. The worst to be affected are the small and marginal farmers (collectively known as smallholder farmers) which constitute nearly 85% of the entire farming section (Agriculture Census 2015-16, 2018). They have been forced out of the agricultural value chain primarily due to constraints in access to favourable and timely credit service, critical quality inputs, market linkages and extension services. The advent of Farmer Producer Organisation (FPO) movement has been one of the most effective pathways to address these challenges (Ministry of Agriculture, 2013). It has enabled the smallholder farmers to reap benefits out of agriculture through active participation in the entire value chain. The nature of this movement has been organic and has gained attention from the government which has declared to extensively promote the FPO movement (Mukherjee, 2019).

The FPO movement still in its nascent stage needs to be strengthened by capital support and capacity building (Mahajan, 2014). In view of this, the current research study aims towards: a) Understanding the context and current status of the Farmer Producing Companies (FPCs), b) the institutional, business and capacity development needs of the FPCs, c) Constraints towards access to finance, quality inputs, market and information, and d) Roadmap for the growth phase of the FPCs. The study has been conducted in 16 FPCs (out of 120 FPCs) promoted by BASIX in 29 districts of Uttar Pradesh. This study will be an attempt towards understanding the ecosystem of FPCs. The findings can be further used for discussion and debates among policymakers, practitioners, researchers and other key stakeholders to develop a roadmap for the promotion of the FPC ecosystem at institutional, individual and policy level.

Keywords: smallholder farmers, Farmer Producer Companies.



1 Introduction

1.1 India's Agrarian crisis and Smallholder Producers

In the past few decades the Indian agriculture has been webbed in crisis and is facing the complex challenge of reversing the deceleration in agricultural growth. The shared value of agriculture in the national GDP has been declining over the years. The primary reasons behind the increasing crisis is the rapid urbanization, followed by rising industrial demand, and increasing population with further land fragmentation (Sharma, 2007). This has added subsequent pressure on the availability of cultivable land.

Further, the agricultural sector in India has been hampered by rising transaction costs, low access to credit and inputs and poor realization of output prices. This coupled with information gap has resulted in poor income outcomes for the farmers especially the small and marginal holding farmers (SMHF). This is also highlighted in the report of Committee on Doubling Farmers Income (2018) set up by the central government. The report findings indicate that the average income of farmers from cultivation increased only by 3.8% (over the decade 2001-2011), but this income increase has been largely of the high income farmers (nearly 7.5 times that of marginal farmers). The NABARD All India Rural Financial Inclusion Survey 2016-17 also points towards the rising income inequality in the agriculture sector (NABARD, 2018).

In order to attain better income outcomes, the smallholder farmers need to process and scale their produce which will help them in attaining better prices in the market. But with lower production, low investments, weak market linkages and low value addition, it becomes difficult for the smallholder farmers to sustain. This has resulted in many farmers taking up unproductive non-farm activities for additional or alternative income source. Another dynamic shift has been of vegetable production which has well suited into their ecosystem. But due to poor understanding of market imperfections the farmers are unable to get better incomes. The issue of income insecurity has been affecting the overall development of the primary food producers. And also raises the concern on attaining food security of the nation. This trend is projected to further continue unless there is a set of effective policy options targeting the complexity of agrarian crisis with development of small and marginal farmers at its centre stage.

1.2 Farmers collectives in the Indian context

In order to benefit from economies of scale, connecting the SMHF to market through collectivization approach is considered as one of the most effective pathways (Ton, 2008). The collectivization action has the potential to promote active participation of producers in the agricultural value chain. An organized system of the SMHF works towards optimizing the transaction costs involved in the agricultural process. It gives a platform to SMHF for collective decision making, improved bargaining power, knowledge sharing, better outcomes, access to market, capital and quality inputs (Singh, 2008).

The farmer collective or enterprises in the Indian context were first organized under the Co-operative act of 1904 made during the British Rule. The concept of collective action in the form of 'agricultural credit cooperatives', was implemented in rural India under the patronage of Government. Post-independence the movement gained momentum and cooperatives were set up nationwide. A major emphasis was given to the agricultural commodities like poultry, fisheries and dairies with strong support from Government's cooperative departments and various other institutions. One of the prime examples would be of the 'Operation Flood' under which the world's largest dairy development program was conducted. Dairy cooperatives were set up to directly procure milk produce from the (dairy) farmers. This approach of collective action has helped the producers in a multidimensional way. Another example would be of the Indian Farmers Fertilizer Cooperative (IFFCO) which today has a 35% share in the fertilizer and seeds market. Similar cooperatives are present in the cotton, sugar, hand-weaving sector with a market share of nearly 60%, 58% and 55% respectively (Das, Palai, & Das, 2006).

The cooperatives have successfully played multi-functional roles in the Indian market with its presence in various sectors. The primary role of cooperative has been to build linkages between producers and markets and to develop economic democracy at the regional level. But even with a history of over 100 years into existence, the traditional cooperative form of organization has not been able to effectively deliver its objectives. The performance and operations of the cooperatives have been largely hampered due to huge government intervention (and not a peoples movement), mismanagement, lack of awareness,

restricted coverage and functional weakness. These constraints are well etched in the very nature and principles of cooperatives form of organization. The story of cooperatives have been reflected in various other collectives like Self-help groups (SHGs), Farmer Interest Groups (FIGs), Village Level Institutions (VLIs), Producer Groups (PGs) etc. The pitfalls resulted in demand of an alternative legal framework in order to give more autonomy to the cooperatives to function as business enterprises. This led to the formation of Farmer Producer Companies (FPC), which is a legal entity formed after amendment of section 181 (part IXA) of the Indian Companies Act 1956 in 2003.

The FPCs have been seen as an amalgamation of cooperative and private limited company. It carries the cooperative values of mutual benefit and professional style of functioning of a corporate. Its members and shareholders can only be farm producers who have voting rights. The members appoint the board of members who undertake resolutions for the functioning of the FPCs. The FPC issues equity shares to its members, which cannot be publicly tradable but only transferable. Like the traditional cooperatives, it gives (limited) return on capital to its members but also functions under a regulatory framework like private companies. One of the unique features of FPC formation is that it can have individual producers and also producer collectives as its members. It has been viewed that the role of cooperative or producer collectives are required more in the post-production stages like processing and marketing (Singh & Singh, 2013). Thus FPCs can have efficient participation of the FIGs, VLIs, PGs, SHGs, etc to function as a business entity. It has no restriction on its area of operation thus allowing the FPCs to benefit from the economies of scale. The FPCs have reduced the intermediaries present in the traditional marketing channels. It has bridged the gap between producers and buyers. Over the period of time with more market opportunities and operational control, the FPCs are more likely to coordinate vertically in a hierarchical fashion or expand horizontally along the agribusiness value chain or achieve both.

1.3 Problem in the present and future

The agrarian crisis is hampering the livelihood of more than half of the workforce of the country who are directly or indirectly dependent on this sector. And it is the small and marginal holding farmers who are

more vulnerable to the shocks generated out of this crisis. There is need of as many effective alternatives to mitigate the risks involved and make the farmers more resilient. In the modern context, FPC has been presented as one of the effective solutions, an improvised version of the traditional collectives. As concluded by Trebbin and Hassler (2012), in order to benefit from the economies of scale (and reduced transaction costs), there is a strong motivation for smallholders as well as retailers to link producers in the value chain through institution building blocks like FPCs. The benefits of collectivization (read collective action) can be trickled down to small and marginal holding farmers through FPC model. But if not regulated, these benefits are slowly surpassed than its adverse implications.

Therefore in order to prevent the FPCs from the shortfalls and failures of cooperatives and other producer collectives, it needs to be supported with a favorable environment. It becomes necessary to have an appropriate design of financial and institutional framework for formation and functioning of FPCs. The success of this design can help the FPCs to sustain under different limitations and environment.

FPC being a new concept in the Indian context, the research in this domain has been scattered. There is need of extensive and diversified literature to answer to the multi-faceted questions related to effective functioning and management of FPCs. There have been various studies done in the FPC context largely focused on the north western states (like Gujarat, Maharashtra) and southern regions (like Andhra Pradesh). There is dearth of any substantial amount of FPC study done in the context of Uttar Pradesh which apparently has the highest number of producer organizations. In view of this, the present study is an attempt to understand the functioning of FPCs in the context of Uttar Pradesh region and provide an appropriate design for developing a sustainable ecosystem for the FPC.

1.4 Overview of Farmers' Producer Organisations in Uttar Pradesh

The Uttar Pradesh Bhumi Sudhar Nigam (UPBSN) with the technical support from BASIX Social Enterprise Group took a pioneering step in promoting 120 FPCs in Uttar Pradesh with the financial support from World Bank and the State Government. The FPCs were formed as part of component IV of Uttar Pradesh Sodic Land Reclamation Project III

named “Institutional Strengthening and Capacity Building for Market Access”. The UPBSN appointed BASIX as the Business Support organization (BSO) for the period December 2011 to December 2018. The geographical presence of BASIX was in 29 districts of Uttar Pradesh with an outreach of nearly one lakh farmers. Out of the total farmers attached with the producer companies, 80% are small and marginal holding farmers. As a BSO, BASIX initially worked towards institutional development process to form the producer groups and federated them in the form of producer companies. It has helped the FPCs in registration, grants/capital/loan, getting input licenses, bulk purchase of inputs and installing confidence among shareholders. Further in many cases it has guided the FPCs to procure produce from the farmers, establish market linkages for the aggregated produce, value addition services and other licenses like Mandi and MSP centre authorizations.

From December 2011 to December 2018, this project has made significant contribution in collectivization of farmers by forming 120 FPCs in 29 districts across all regions of UP. During this time span of seven years, following are the key components of the project:

- a) Approximately one lakh farmers were mobilized from 1035 villages across UP.
- b) Out of these 120 FPCs formed, 85 FPCs are three year old and rests are newly formed.
- c) More than one lakh farmers joined FPCs and contributed 7.84 Cr as share capital to the FPCs.
- d) 100 FPCs have achieved cumulative business of Rs.118 Cr. This includes agri-input trading of Rs.452 lakhs and Agri produce sale facilitation of Rs.728 lakhs.
- e) 82 FPCs have received financial support of Rs.369 lakhs from UPBSN in the form of Community Investment Fund.
- f) FPCs have got loan of Rs.206 lakhs from NBFC like BASIX LAMP Fund, BASIX Samruddhi Finance Ltd, Samunnati Finance and Ananya Finance.
- g) FPCs also got loan of total Rs.208 lakhs from banks like State Bank of India, Bank of India, Central Bank of India and many others.
- h) 23 FPCs have Mandi License, 26 FPCs have Farm machinery banks, 94 FPCs have IFFDC Krishiseva Kendra/ KRIBHCO center and 95 FPCs have UP Beej Vikas Nigam distributorship.

Value addition in FPCs success:

- 1) **Mobilization of farmers-** Basix established FPCs conducting meetings along with the WUGs formed under the UPBSN project. It motivated them to contribute money to become member and partial owner of the FPCs. Their efforts and strategy proved vital in creation of FPCs in region where concepts of agribusiness in which farmers will be major stakeholders are nowhere in scene. After that Basix helped them in registration process under Companies Act and provided assistance in legal compliance with state authority. Basix role in forming organizational structure in initial years of FPCs formation gave them impetus and moral ground to run company in future.
- 2) **Capacity building:** Basix helped FPCs in functioning of regular activity like business planning, operations management, governance & leadership, accounting and in making collective decision making. With the facilitation of Basix the FPCs have conducted training and exposure visits of its progressive farmers to successful FPCs. It has also supported in learning new technology and methods of farming.
- 3) **Access to Capital:** To achieve sustainability in FPOs, access to credit and investments play important role, mainly for meeting working capital and infrastructure requirements. BASICS Ltd. facilitated access of both grant and loan support to FPOs. In Uttar Pradesh, 82 FPCs received a total of Rs. 3.69 crore as community investment fund to meet initial working capital requirement. 57 FPCs received equity matching grant Rs.3.26 crore from SFAC. Rs. 293 lakhs from NBFC and other public commercial banks as working capital and loan sanctioned for farm machinery bank. Agriculture Department UP has also supported these FPCs by grant of Rs.152 lakhs for availing farm machinery bank. FPCs have also been guided to repay their loans on time to demonstrate good credit-worthiness.
- 4) **Access to market & buyer consistency:** The farmers were provided access to quality and preferred agricultural inputs such as fertilizers, agrochemicals and seeds through the FPCs. These agricultural inputs were provided to the FPCs with the agro-inputs manufacturers such as IPL, Bayer Ltd., TATA

Rallies, Indo-Gulf, Coramandel, IFFCO, KRIBHCO, Mahyco, Monsanto, Pioneer, Ankur, KVK's and agriculture universities. Basix provided support in approaching market for raw input like potato (Mainpuri) with Pepsico Ltd which helped farmers to get fair prices for their potato. Basix also helped FPCs in establishing tie-up with agribusiness companies like ITC, TATA and Walmart, Spices Board of India, Maple Organic Technology.

- 5) **Increasing negotiation power of FPCs:** Access to market to the farmer members due to efforts of FPCs and higher price realization of farm produce at local mandi and also bargaining power while negotiating with big companies. A few other softer benefits experienced by the beneficiaries are collective negotiation capacity, exposure to good practices, acquiring entrepreneurial skills, etc. With this reasonably good initiation phase, FPCs are now ready for scaling up their operations and revenues with appropriate handholding support.
- 6) **Availability of input material-** Farmers generally face lot of problems in getting seeds, fertilizers and pesticides on time which has adverse impact before sowing season. After formation of FPCs, farmers are getting fertilizers of reputed brand like IFFCO, KRIBHKO and quality seeds at affordable prices. BASICS Ltd. has promoted seed production at FPC level and helped farmer members of FPC in getting genuine/truthfully labelled seeds at cost effective price at their village itself. In Uttar Pradesh, Seed Production had been undertaken in 195 ha land involving 17 FPCs of 11 districts. Total 612 farmers were engaged in this activity. Total 7720 quintal of wheat seed was produced (Rs.1.54 crore).
- 7) **Access to Farm machinery Bank:** To increase the reach of farm mechanization to small and marginal farmers, BASICS Ltd. facilitated the FPC convergence with Farm Machinery scheme under Sub-Mission on Agriculture Mechanization. Total 32 FPCs were helped in accessing such units from the Department of agriculture, Uttar Pradesh.
 - a) **Diversified business activities:** With the help of Basix in mobilization of farmers, the FPCs have achieved considerably in diversifying their business. Till now,

FPCs are doing seed production in 148 hectare of land. FPCs are doing Zn fortified wheat seed production in 24 hectare. 253 farmers associated with FPCs have indulged into organic farming. 12 FPCs have started soil testing for farmers. Four FPCs are acting as microfinance agent and disbursing loan to farmers. Over last seven years, FPCs has developed business relationship with companies like Marino Industries, Mother Dairy, Singh rice mill, Gagan fruit company, Pepsico, Pratap rice millers. This business tie-up with big companies benefitting greatly to farmers as their farm produce are getting better prices compare to before.

- 8) **Policy Advocacy:** To ensure farmers are paid Minimum Support Price for their produce, government has recognized FPCs as one of the procurement agency. Although in few states FPCs had been recognized and given authority to act as MSP procurement center, in UP this was not been adopted by the UP state Govt. BASICS Ltd. strongly advocated with the State Government to authorize FPCs as MSP procurement centers. This has resulted to issue of notification from UP State Govt. allowing FPC as one of MSP procurement agency. Nearly 20 FPCs were authorized for wheat procurement in 2018-2019.

With this foundational buildup, the FPCs are now ready for further growth phase for scaling up their operations and better revenues. And this study will be an attempt in studying a sample of these FPCs and try to recommend road map for the growth of the FPCs.

1.4.1 Need for the study

As the proportion of smallholder farmers is rising and the farms are getting more fragmented, it becomes necessary for the policymakers to prioritize the development of smallholder farmers. Much emphasis needs to be given to make the agricultural process profitable and sustainable which has observed a fall in the total area under farming (Bera, 2018). With rapid urbanization and growing population, the effective step towards the above-mentioned objective would be with bridging the income gap between urban and rural areas. There are various international and national case studies indicating the prominence of FPCs in the development of

small and marginal farmers. It has made the farmers more self-reliant by improved income security. This makes it more important to understand the context of the FPCs and find out gaps to make it more resilient to tackle with risks involved in the agricultural process.

With the assistance of BASIX, most of the FPCs have initiated bulk purchase of inputs and ensured timely delivery of critical input services to its members. This has resulted in strong foundation and imparted benefits to the member's at their door step. Certain FPCs have further built up market linkages for aggregated produce and are also installing value addition services to fetch better outcomes. But as the FPC is largely a collective of smallholder farmers there is always the constraint of finance, infrastructure and information which hinders the overall performance. Therefore it becomes necessary to identify such constraints and gaps and understand the institutional, business and capacity needs of the FPCs to ensure sustainable growth in the longer run.

1.4.2 Research Objectives

The study aims towards understanding the context of FPCs through attaining the following objectives:

- a) Understanding the current status and functioning of the Farmer Producing Companies,
- b) Examining the constraints towards access to finance, quality inputs, market and information, and
- c) Developing a roadmap for the growth phase of the FPCs.



2 Theoretical Framework

2.1 Collective action and smallholder producers

2.1.1 The logic of collective action

Collective action is defined as a line of action identified by different actors motivated to achieve certain common interest through collectivization. There are benefits of improved bargaining power, less transaction costs and better economic outcomes in such group behavior. These are beneficial in cases where individual capacities fail to overcome the endogenous or exogenous constraints. The collectives formed can be formal or informal; connected through self-motivation or influenced or coerced; self-interests induced through collective interests or social interests; short-lived or has long-term presence. Depending on the purpose and conditions the collective agency forms its characteristics.

One of the key determinants of the nature (or say success) of collective action is the member's allegiance. The allegiance can be reflected from the member's inclination towards significance of collective interests. As discussed by Olson (1971), in a collective group, there might be cases when self-interested individuals (in the continuous process of making rational choices) will try to seek their personal benefits over the collective interests. Olson defines this as the 'free-rider' problem under which only few individuals work and benefits are shared by everyone. Certain individuals do not find any incentive in working towards collective interests and under such conditions there is strong possibility that the objective of collective action might fail.

Therefore the collectives have to be formed and designed in such a manner that such individual characteristics can be curbed (it cannot be removed completely). In view of this are various approaches discussed by Olson and many others. Some of them are as follows:

Small size of the group: smaller groups have been considered to resilient to free-rider problem than larger groups (Olson, 1971). In a smaller group, collective decision making is more transparent, less conflicted and accountability is kept on a check. It ensures better per-capita benefit as production costs is also less.

For (large) groups facing the issue of free-rider, there are two specific ways which can stimulate a rational individual to be group-oriented,

- **Privileged groups:** Benefits or incentive should be given based on the active participation of member in the collective decision making. Individuals enjoying the free ride would see this as a disincentive and might act upon. The incentive is dominantly 'expressive'.
- **Selective groups:** Benefits or incentive (largely private goods) are given to members on certain contributions. These are organized groups.

The idea of small size group is significant as in larger sizes, the group characteristics gets diversified which has implications during the decision making. But this does not mean a larger group cannot be formed or developed. For larger group to be group-oriented there is need of incentives and disincentives as stated above. This will mobilize the individuals in the group. But all of these approaches will be effective depending on the benefits of the collective actions. If the overall functioning of the collective action is poor (for example it has not establish any market linkages for selling its collective goods) and there are no substantial benefits in it, then the incentive/disincentive might also not work. This is one of the prime assumptions which need to be kept in mind before forming any collective or interest groups. It is the members who need to be aware of the benefits and challenges of collective action even before forming a collective.

One of the key assumptions of Olson that the benefits of member mobilization lead to positive benefits on policy mobilization has been argued in many works (Salisbury, 1969; Bruycker, Berkhout, & Hanegraff, 2017). It means that mobilization of interest groups will lead to collective functioning. It is accepted that mobilizing producers with common interests might be relatively easier, but this will not lead to mobilization of the same producers (now members) in taking collective decisions and bearing the risk of it. There might be information asymmetry and self-interest leading to internal conflicts. It is necessary to separate these two linkages and work towards controlling and tackling collective action problems right at the member mobilization stage.

Therefore instead of simply going ahead with setting of policies and functions (and further incentives) in the collective agency, it is necessary to understand the drivers behind it. The primary concern is to keep these drivers maintain the equilibrium and not lead to institutional changes and conflict of self-interest. Therefore at the mobilization stage of any collective agency, membership incentive should be strongly 'expressive' and not an attractive package of material selective benefits .

It is necessary to examine the promoters and barriers to collective action leading to high or low participation of members. And this participation depends on both individual and group behavioural characteristics, which will be further explored in this study.

2.1.2 Role of collective action in agriculture

Collective action has been termed out as one of the effective pathways for integrating smallholder producers to high-value and competitive markets. With the increasing transaction costs in agriculture and with no say in the value chain, collective action has been instrumental in empowering the smallholder producers in many ways (Fischer & Qaim, 2011). The smallholder producers who have been the underserved communities, with the help of collective action have been able to access and participate in the input and output markets of agriculture value chain (Kirui & Njiraini, 2013). However, though the farmers groups are formed on concentrated interests but there are factors of composition and characteristics of individuals and member mobilisation method (which links to group behaviour) which determine the nature of outcome. The varying level of commitment of individuals as explained by Olson (1971) and Fischer (2011) will lead to the collection problem of free-riding. This will have implications on the participation in collective activities and raise the concern on sustainability of the group formed.

The nature of collective action in agriculture has moved from cooperative structure to an enterprise structure. More emphasis has been laid down on the economic empowerment of the members in a collective. This has been well depicted in the work of Bijman (2016). The author has highlighted the "changing nature of farmer collective action" in the agrarian livelihood context of developing countries by drawing out three large trends,

- a) Transition from focus on resources (access to inputs, credit and technology) and capabilities of producers towards improved access to market. This is interesting, as for market access or proper business functioning of the PO there is need of resources and capabilities, in the form of investment in developing leadership, management and marketing skills of the producers;
- b) Transition in policy process from community-oriented towards member-oriented policies. The traditional collective action was more focused on social and economic prosperity of the entire community. In the PO model the focus is primarily towards economic prosperity of only the members of the organisation.
- c) Transition from policy orientation towards market orientation. Rather than working towards efficient policy making, the farmer collective action has shifted its orientation towards placing itself in the market (as a buyer or supplier or both). They have made their way into agricultural market value chain.

The first transition is important as it draws variables needed to work towards the changing nature of farmer collective action. The variables need to be developed in order to achieve economic benefits for the PO members through market orientation.

In the second transition, the author raises the concern of inclusiveness of PO. In a market-orientation structure, emphasis has to be given to producers who are interested and willing to be owner of the PO. The PO might have to expand beyond its region for business opportunities and lose out with its regional identity. Thus community inclusiveness at local level might not be there. But it is important to understand here that, even a collective of members under a PO is also another form of community. Thus in a way the benefits of PO is served to a particular set of 'community'. And over a period it is possible for the PO to incorporate the community at local level. But the specific question to address is the social inclusiveness primarily of caste, class, gender and age. This lays an impact on the participatory decision-making and sharing of benefits among the members.

In context of the third transition, the author further observes that, with market orientation (preference to selling farm produce rather than agri-input supply) benefits adding to the producers income, the traditional PO are willing to carry out market activities. But there are two major constraints which pose as challenges to sustain in this transition. Firstly the producers need to develop capability to understand and manage the new intervention and secondly, the state policies are largely favoured towards input stage of agriculture (subsidies, credit support, and technology assistance) and not towards strengthening income security of the producers.

The transition towards market-oriented policies does ensure economic empowerment of the producers but it also has implications on the governance, leadership requirements and relations among actors. The internal governance in market-oriented transition is hampered by heterogeneity of membership (Bijman, 2016). This reduces the overall efficiency and effectiveness of collective decision making. In order to sustain this transition requires a separate set of leadership qualities and skills. This requires external assistance and hand-holding in the initial stages. With market-oriented activities there comes the requirement of capital which has its own constraints. This also has an impact on the member commitment. And as explained earlier, member commitment and interest acts as a key determinant in preventing the collection action problems. With more integration into the markets, there will be demand of vertical coordination in the PO structure. And the increase in hierarchy in member-PO relationship will tend to reduce the member commitment.

Apart from access to market, a PO faces issues of scarcity of capital, lack of knowledge and information and non-availability of quality inputs. To fully function as a business enterprise, the PO needs to overcome all of these challenges. These are challenges which might arise from time to time, thus there is no permanent solutions to it. At best, the PO ecosystem can be developed in such a manner that it can be resilient enough to the shocks/crisis arise out of the constraints. With capital the availability of quality inputs can be dealt with (provided there are regional suppliers to it). With capital and proper knowledge of business entities, the problem of access to market can be resolved to an extent. Information

asymmetry is one of the major reasons that the individual producers have failed to understand the consequences of agrarian crisis. For example, the extensive usage of chemical fertilizers and pesticides has resulted in soil degradation and groundwater deterioration. Since these are common resources, there can be no resistance drawn by individuals to save themselves from the practice of larger communities. There is over-exploitation of groundwater used for irrigation. At an individual level, the farmers have not been able to picture of the mammoth water crisis which will badly hit the agrarian sector. The government provides with extension services to fill these gaps but many are left out of all these. Lastly, the market entry is restricted, very competitive and exploitative in nature.

Thus for a PO, which procures the produce from its members and moves to market for fetching better incomes, will be hampered by the above mentioned constraints. The formation and functioning of the PO need to have integral solutions to tackle all of these.

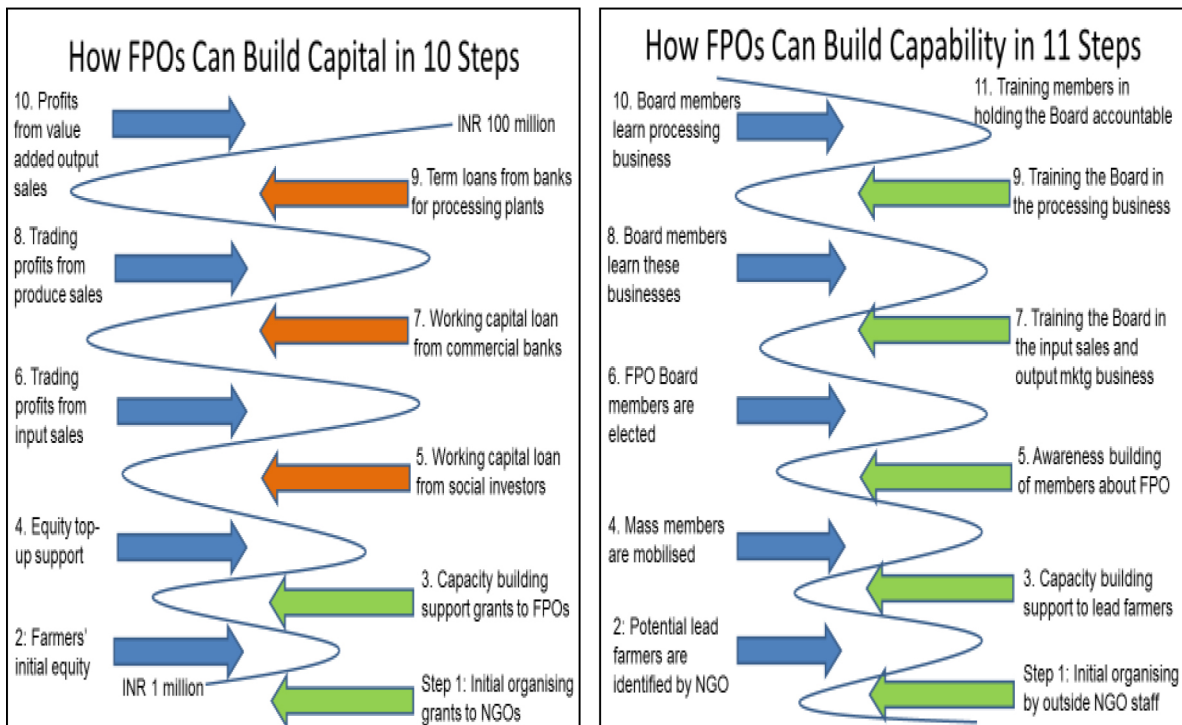
2.1.3 Capital and capability

With the changing nature of collective action in agriculture shifting towards market oriented structure, it becomes necessary for the producers to be at the integral of the market value chain. In absence of which, the small holder producers do not get better outcomes out of the agricultural activities. It has been well conceptualized that the benefits of collective action by forming farmer producer organization will lead to economic empowerment of such interests groups. But the journey towards prosperity is filled with endogenous and exogenous constraints. The solutions for tackling such constraints have been well defined by Mahajan (2014). The author highlights importance of capital requirements and capacity (read capability) development to achieve the goals of such collective action. There is need of both capital and capacity development to be intertwined and fulfilled at each and every stage of FPO.

The author states that the two approaches are to be applied in combination as they are interdependent on each other. There is requirement of capital infusion while trading agri-inputs, marketing, processing, infrastructural needs, professional management, facilitating financial and extension services. While there is need

of separate sets of skills and interests needed by the leadership as their expertise is primarily in cultivation process. The policy-makers or supporting agencies involved in the FPO ecosystem cannot separate these two entities. Just by showering the ecosystem with capital will not serve purpose if there is no strategy on optimal utilization of the capital. And in either case, even if the leadership or the supporting institution is capable enough to carry out market activities, in the absence of capital it will be difficult for the organization to sustain in the high-value and competitive markets.

Figure 1 Collaborative approach of capital and capacity development



Source: (Mahajan, 2014, p. 13).

-----added Fig 1-----

In the above figure 1, the author has listed down 21 action-steps for sustaining a FPO. As we move from one FPO to another the context and characteristics of it changes accordingly. Therefore it is not necessary to follow the exact approaches listed in the above figure. But what is important to take note is the availability of both capital and capability development. In the present study this will be taken as the foundation base and more factors will be observed along with the double helix model of capital and capability.

2.2 FPC experiences from Others States in India

There are numerous literatures on the significant role played by the farmer producer organizations or companies in empowering the producers attached to it. One of the prime examples would be of the District Poverty Initiative Project (DPIP) in Madhya Pradesh (MP). With the collective effort from World Bank and MP state government, large credit was infused into the FPCs formed under the DPIP project. This was designed to give credit access to the respective FPCs for over a period of 05 years . There are a total of 148 FPCs formed through this initiative and it is believed that farmer's income has enhanced two to three times from this. One of the salient features of this program was that, the support (credit and capacity building) was given as a facilitator which allowed the FPCs to thrive independently and inculcate the ownership values among the board members. Now these are being managed by a state level federation known as, Madhya Bharat Consortium of Farmers Producer Company Limited. Some of the examples from this are,

- a) Samarth FPC, Agar, Neshkala Guna, Hampco, Shivpuri, Rewa FPC, Sironj, Panna, Naogaon, Ratlam do seeds business of more than 80 Crore, where seeds growers farmers realized additional income from 10000-25000 per season.
- b) Chindwara FPC at Junnardeo did business of Pulp of Custard Apple >2 Crore in a season benefitted 60 farmers with additional Rs. 5000.
- c) Narsingh FPCs did business of pulses of 8 crore (whole seed and processed both > 14 Crore since 2017)
- d) Neshkala FPC of Guna did business of coriander (whole sales) of 3 crore where farmers earned 250/Qtl additionally.

Study done by Desai and Joshi (2014) in the PO's of Gujarat depicts how with the access to credit and information the smallholder producers were benefited from the collective action. Another example from Gujarat would be of Gujpro Agribusiness Consortium Producer Company Limited , which is an umbrella of 27 FPOs spread across 11 districts of Gujarat. This federation is into agriculture and horticulture and its focus areas are a) Procurement and processing of groundnut; b) Procurement of oilseeds and pulses under Minimum Support Price (MSP) scheme; c) Trading in cumin crop and d) Marketing support to

mango growers. The federation has even explored into international markets. It has implemented the Fair trade initiative in groundnut crop and facilitated sale of 1600 MT of fair trade groundnut during 2017-18 and 2018-19. This has resulted in increased price realization of 3-4% by farmers.

Deola FPC from Nashik (Maharashtra) has been one good example cited (Khanna, 2018). The FPC has been successful in selling its member produce in the urban markets of Pune and Mumbai (both of which are at distant locations). The most common FPC to be cited is Mahagrapes again from Maharashtra (Roy & Thorat, 2008). Mahagrapes acts as a marketing partner for nearly 16 grape-growing cooperatives spread across five districts. It has provided the cooperatives with pre-cooling and cold storages. Apart from grapes it has also ventured into pomegranate. One of the key and biggest achievement is that today Mahagrapes is a well-established brand in the international market, which has further facilitated paths for other commodities from India. Trebbin and Hassler (2012) in their work on Vasundhara Agri-Horti Producer Company have stated the significance of collective action in enhancing the economies of the producers engaged. The company primarily deals procurement, processing and marketing of fruits and nuts. And has a membership of around 41000 members spread across multiple states in India.

There is example of Raitha Mitra FPC from Karnataka which supplies vegetables to Kerala State government. They have replaced the middleman and buy at fixed price from the producers. Apart from this it also connects farmers with suppliers of chia seeds. It has also partnered with other agri-market players and brands. There are women-led FPOs like Samruddhi Mahila Crop PCL from Rajasthan which have helped its 2200 members (all are women) to strengthen its position in the value chain. It has also partnered along with SRIJAN and Friends of Women World Banking for trading and accessing capital. Another such women-led FPO examples is of Ram Rahim PCL, which has further extended its entry into the futures market and is doing good business.

Though there are numerous examples to be followed in the Indian context, but the literature is restricted to only certain geographical areas or states. Not much has been covered on FPOs from Uttar

Pradesh, Bihar and North eastern states. With the rising FPO movement boosted by government pledge of announcing 10000 more FPOs; it will be significant to see the length and breadth of the literature to be covered.



3 Research Design and Approach

3.1 Study model

3.1.1 Framework development

For any business to be profitable, there are three mixed approaches which are generally followed: a) Reducing or optimizing the input costs or b) Fetching better prices of its commodities or services, or c) Combination of both of the above. A FPC can play its role in certain stages of the value chain or can be involved in the entire value chain. The FPCs functioning can be largely divided into two stages, namely:

- Primary Stage in which FPCs deals input license like Fertilizers, seeds, pesticides. FPCs purchase in these items in huge quantity before season and sell it to farmers at affordable price at right time. And, also provide services like renting farm machinery equipment like Tractor, Rotovater, M.B. Plough, Power sprayer, Bund Market and cultivator to farmers at affordable price. Beside these, FPCs provide technical assistance about crop rotation, amount and frequency of pesticide, seed selection and soil testing.
- Secondary stage means accessing market for farm produce to get higher prices and sustainable growth. There are many challenges like aggregating small and marginal farmers and collecting their farm produce and then transporting it to local mandi. Secondary stage also means providing a better platform of farm produce with higher process like selling it directly to the agriculture based company. In secondary stage, FPCs also involves in 'value addition services' in which FPCs can process primary product e.g. grading, sorting, and cleaning before selling it to market. This way they can greatly increase chances of getting higher prices and better market access. The primary and secondary stages are not necessarily in sequence, but for a sustainable growth and strong foundation it is advisable to move from primary to secondary.

The present study is basically an exploratory study of the FPC functioning. A purely qualitative framework has been designed to get an in-depth understanding of the objectives.

Since the inception of FPC model in UP in 2011, it had undergone major changes in terms of funding and technical expertise. At the time of carrying out the present study, UPBSN had stopped funding as the project had terminated in December 2018. This resulted in reduced involvement of BASIX along with the FPCs. This has impacted FPCs internal dynamics and functioning. To bring best knowledge out of present circumstances, anecdotal experience was taken during the field visit with farmers, Board of Directors and Officers of UPBSN. Detailed discussions were conducted along with BASIX team at Lucknow to get broader understanding of the FPCs functioning and visited few FPCs to capture ground reality. This activity has helped in designing the framework for the execution of this study. The questionnaire was prepared after consultation with BASIX team and observations from pilot studies. It consists of questions about FPCs organizational framework, financial condition, business model, capabilities, needs and constraints. It is clear that each of the 120 FPCs have different characteristics ranging from stages they have reached, shareholder size (and share capital), commodities procured, turnover, market linkages and other regional factors.

3.1.2 Field visits

A two member team was formed for data collection, which were on field for a brief period of 17 days. The FPCs were notified beforehand (nearly three days) about the arrival and nature of the field visits. This helped in streamlining the field plan and finishing the work on the scheduled time. Based on the geographical location of the FPCs, one or two FPCs were covered in one day. The team started from Central zone starting from the sampled FPCs in proximity to Lucknow and then moved towards distantly located FPCs. The objective set was to interact with every stakeholder of FPCs like Board of Directors, Chairperson, CEO and beneficiary. The respondent was basically the board representative (not necessarily the chairperson) who was actually managing the entire enterprise. The interview was generally held at official address of company with maximum participation from board of members. But during the actual timeline of the study it was prime agricultural season phase, therefore availability of the required or all members was not possible. The field visit was completed from 26th August to 13th September 2019.

3.1.3 From findings to recommendations

The responses were captured in the form of pen and paper. This was then tabulated in Excel sheet for further analysis. We carried out in-depth interviews of stakeholders in Hindi language and then converted it into English while filling Excel sheet (refer Appendix A for the in-detailed questionnaire).

The analysis has been primarily divided into 3 sections; business service model, capability and capital. Further data from different verticals were clubbed together and analyzed to examine the above headings. This helped in better understanding of the performance and the drivers of the FPC. The findings were used in groups to understand the constraints and needs of the FPC. Further analysis has been done based on the larger trend found in the study. This gave us a structured way to understand the objectives and design the relevant recommendations.

3.2 Study area and sampling

Study area: All FPCs are located in 29 different districts of Uttar Pradesh. We divided FPCs into four different regions based on their geographical area. Uttar Pradesh is large state with total area of 2,36,286 sq kms and with large Gangetic plane in north and smaller Vindhya Plane in south of UP. Due to its large size, whether, soil condition, water availability every region have different crops and also differ from productivity. Further, presence of agribusiness industry like sugarcane mill also influences greatly nature of crop and their rotation. Considering all the variables discussed above, we divided all FPCs into four regions so that we can cover maximum number of problems faced by FPCs.

Region	Districts
Eastern Zone	Allahabad, Bhadoi, Jaunpur, Gazipur, Azamgarh
Western Zone	Kanpur, Mainpuri, Kasganj,
Central West Zone	Unnao, K. Nagar, K. Dhat, Hardoi, Kannauj
Central Zone	Lucknow, Fatehpur, Raebareli, Sultanpur, Pratapgarh

Sampling: After the categorization of all FPCs into the 4 different regions, four FPCs from each region has been selected with consultation with

Mr Rajnikant Prasad and Mr Rajesh Gupta, based on the availability of either Chairperson or CEO of FPCs. Criteria to divide FPC into four category is following:

Category I - FPC which has attained both primary and secondary stage (moved towards value addition also).

Category II - FPC which has attained primary stage but procurement has not started.

Category III - FPC which has been established over two years or more but has been struggling in the primary stage.

Category IV - FPC which has been newly formed (approx one year old).

Sample size: Total 16 FPCs selected for study out of 120 existing FPCs.

S.No	Farmers Producers Company (FPC)	District	Zone	Category
1	Mahatmane Spices PCL	Raebareilly	Central	I
2	Navyug Kisan PCL	Lucknow	Central	II
3	Bacharwan Kisan PCL	Raebareilly	Central	III
4	Bakshi ka Talab PCL	Lucknow	Central	IV
5	Gram Development PCL	Kannauj	Central West	I
6	Mishrik Agro PCL	Sitapur	Central West	II
7	Chandrikadevi PCL	Unnao	Central West	III
8	Indu Kisan PCL	Hardoi	Central West	IV
9	Krishi Vikas Farmers PCL	Mainpuri	Western	I
10	Guru Kripa PCL	Kanpur	Western	II
11	Brijwasi Kisan Samriddhi PCL	Kasganj	Western	III
12	Choudhary Rameshwar Dayal PCL	Mainpuri	Western	IV
13	Swami Ramkrishna PCL	Azamgarh	Eastern	I
14	Azamgarh Agro PCL	Azamgarh	Eastern	II
15	Jaunpur Kisan PCL	Jaunpur	Eastern	III
16	Shri Ratna Devi Kisan PCL	Ghazipur	Eastern	IV

3.3 Data collection

The study has combination of both primary and secondary data collection. The secondary data has been received from the MIS database maintained by BASIX during the timeline of the UPBSN project. For the primary data a semi-structured questionnaire has been used to capture responses. The questionnaire has been designed based on the project overview given by BASIX, the pre-field visits to 3 FPCs and general understanding of the functioning of FPCs. It consists of both open-ended and close-ended questions in order to efficiently capture the functions, implications and constraints.

The questionnaire was pretested in one FPC to check its credibility for fetching the appropriate data and substantive changes were incorporated accordingly. For the interview one FPC representative (from the general body) is purposely selected who is basically the main player behind the running of the FPC. The responses have been recorded by paper-pen. A total of 3-4 days were spent in each zone including travelling. A systematic route map was discussed along with BASIX team as per the availability of board representatives and to optimize the resources of time and money.

The secondary data provided by BASIX has been used in the sampling process and to also get an overview of all the 120 FPCs.

Limitations: In practice, no research study can be free of limitations and constraints. The following are the list of probable limitations identified for the study based on the initial discussions along with BASIX and FPCs. There are certain assumptions also made in accordance.

- Since the services of BASIX as per the UPBSN project has got over in December 2018, the MIS database is not updated with current time frame.
- BASIX has initially placed its technical assistants at the district units but after the project completion even their services have been dismissed. These people would have acted as nodal points for assembling the latest data required in the study.
- Majority of the FPCs do not have their own data base or concrete way of keeping the records. There is presence of general register entry for the services being provided. But this does not fit the exact

purpose of findings. In certain cases, the recorded responses will be an estimate given by the respondent and probably not the exact figure.

- The respondent will be the person who has been responsible for the initiation of the FPCs, mobilizing people and has knowledge of the operations. This is the case in most of the cases; therefore such respondent will be purposely selected after discussion along with BASIX.
- The members or the primary producers are not part of the interview as it is generally assumed that not many members are aware of the entire functioning of the FPCs.



4 Research Findings and Analysis

4.1 Business model adopted by the FPCs

There are numerous ways to establish and sustain a business enterprise. An enterprise usually works towards either optimizing its transaction costs either through minimized input costs (also backward linkages) or getting better outcomes (also forward linkages) or a mixture of both. For a FPC the forward linkages constitute of processing, marketing, business activities; and backward linkages constitute of agri-input trading, credit, farm machineries, extension services etc. There is requirement of infrastructure which can be commonly used in both forward and backward linkages. For example the warehouse build can be used to store both agri-inputs and farm produce. The tractor-trolley can be used to procure the agri-inputs and also transport the produce. This list varies from one context to another but the core objective for backward linkages and forward linkages remain same. The type of business services being provided also determines the strengthened position of producers (through FPC) in the agricultural value chain.

The following sections will present the various different business services (or models) adopted by the respective FPCs. As each and every FPC is contextual in nature, this section will give a brief understanding on the functioning of the FPCs at the input and output stages. It will also examine the constraints of FPC related to access to inputs, market and information.

4.1.1 Input services: Backward linkages

It has been strongly observed that majority of the FPCs in its incubation stage tends to start with trading of agri-inputs to its members. Though the margin involved is not high, it helps the FPC in benefiting the farmer members in the initial stages of cultivation cycle or any activities and building its membership base. This majorly comprises of input licenses, certification, and production of agri-inputs, agri-input trade, farm machinery equipments, and other relevant services essential for farmers provided by the respective FPCs.

Input licenses: In order to initiate the agri-input trading the FPCs first need to get licenses for the same. Agri-inputs largely comprise

of seeds, fertilizers, pesticides, cattle feed etc. The FPCs transact with institutions like IFFCO and other private players, who already have their presence in their region. The process involves prior documentation which has been normally guided by the resource institution. Licenses availed can be issued only to one input centre and it has to be renewed after a period of 3 years. The supply cannot be transferred to any other additional centre of the FPC; separate licenses will be needed for it.

Majority of the FPCs studied had availed input licenses of seeds, fertilizers and pesticides (which are predominantly in demand). There were two FPCs (Mahatmane Spices PCL and Indu Kisaan Saathi PCL) who recently got dealership with private entities for provision of cattle feed but are yet to start this service. All of the newly formed FPCs (one-two years old) were found not to have any of such licenses except Chodhari Rameshwar Dayal Farmer PCL (Mainpuri) which in a short span of one year since its inception has managed to get licenses for both seeds and fertilizer. Nearly 80% of the studied FPCs (more than 4 years old) had dealership for IFFDC Krishi Seva (for agri-inputs) and Uttar Pradesh Beej Vikas Nigam (for seeds only). Through the later dealership the FPC can work towards seed certification and production activities.

Mandi licenses have been received by five FPCs but none of them have conducted any transactions through it. The licenses have been availed after three-four years of the FPC registration. The unholy nexus of middleman and other mandi-players is so rigid that it becomes difficult for a new entrant like FPC to make way through. Mahatmane Spices PCL is the only FPC to become the regional corporate agent of Life Insurance Corporation of India to provide micro-insurance services. This is a new list of services which the FPCs are trying to enter.

For most of the FPCs it normally takes two-three years to avail licenses for seeds, fertilizers and pesticides. The process involves extensive documentation for which the dependency has been on the resource institution. It also complicates the case for FPC which has plans to open additional centre to increase its member outreach. For availing Mandi licenses the FPC has to take guarantee of two middlemen or mandi officials which is a tough task as this process

involves implications on their livelihood. The trade process at the Mandi is complex and filled with corruption, that even the FPCs which have got into aggregation of farm produce, have not tried to carry out any activities after having place in the Mandi.

Procurement of inputs: It was generally observed that majority of the FPCs with licenses for seed, fertilizers and pesticides; had set up input centers. There were exceptions like Guru Kripa PCL (Mainpuri) which did not procure pesticides after having license. All of the FPCs had one input centre in its registered address except Krishi Vikaas Farmer PCL, Azamgarh Agro PCL and Swami Ramkrisan PCL which had two, two and three functioning centers respectively. There was a salesman at the centre to carry out the transactions. In few cases there was board representative (mainly the person running the FPC) who was managing the input centre. This also led to inefficiency in the overall work as the concerned person was not present always. The location of the centre was critical as farmers do not visit the centre if it is distantly located.

Nearly 80% of the supply was fetched from IFFCO and remaining was covered from regional private players. In case of IFFCO, the payment had to be done online and upfront. All of the FPCs faced the issue of late delivery of items from IFFCO. Options of private players were also taken up but farmers favored IFFCO products due to its brand name and quality inputs. Therefore in all the cases there was a huge gap of supply and demand. In one such case of Chandrikadevi PCL (Unnao) due to failed delivery order, the FPC had to transact along with another FPC in its region for the agri-input supply. This ultimately resulted in disinterest among the beneficiaries as delayed services are a disincentive for the agricultural practices (and led to further cancelling of the agri-input services provided by the FPC).

On an average only 40-50% of the members (ranging from 25% to 80%) and around half of these as non-members benefited from the input centre. In case of Swami Ramkrisan PCL (Azamgarh) which had three input centers (placed at a buffer distance of 4-5 kms), the member percentage using the services was about 80%. One interesting finding was that none of the member's complete demand was met by the input centre hence their reliance on

private local sources was still there. One of the major constraints of the FPC's supply-demand problem was scarcity of capital due to which even the substantial demand was not met in most of the FPCs. Adding to this is available credit services imparted by private local sources which has traditionally build a strong dependency of the producers on such mediums. All of the studied FPCs handed out such services only to selective members . The only incentive provided to members were that in case of supply shortage they used to get first preference. In some samples, even this incentive was directed to selective members only. This subsequently leads to disinterest among member participation and 'free rider problem' wherein the non-members enjoy the input services without being part of the enterprise.

There were some good initiatives taken by certain FPCs to tackle the constraints of supply-demand problem. Like in the case of Barabanki FPC named Ujjwal PCL (part of the preliminary study) used its tractor (through farm machinery bank) to deliver agri-inputs from its centre to member villages. Few more FPCs did this on extreme demands. Gram Development PCL (Kannauj) had made a passbook for every member in which every transaction record was maintained. In this way the FPC could easily identify their members and also keep a track of the demand.

Certification and Production of Seed: Majorly it is Uttar Pradesh Beej Vikas Nigam and IFFCO who have acted as the certifying agencies. BASICS Ltd. has promoted seed production at FPC level and helped farmer members of FPC in getting genuine/truthfully labelled seeds at cost effective price at their village itself. There are only two FPCs namely Mahatmane Spices PCL and Gram Development PCL who have received such certification. Gram Development due to internal mismanagement could not proceed to the production stage. Mahatmane has got started with production of wheat (zinc) in this fiscal year of 2019-20. It has received around 150 quintal of seeds from UP Beej Vikas Nigam and distributed it to nearly 150 member farmers (spread across two neighboring villages). The training had been facilitated by the supplier agency. Looking at the huge margins in this activity, many FPCs have seed production on their business plan but are also aware of the technicalities, lack of knowledge and complex machinery involved in it. This is a potential area for the FPCs to generate revenue and also extend benefits to its members.

Access to farm machinery and equipment: There are only four FPCs which have access to Farm Machinery Bank and one FPC which has access to custom hiring centre. In case of farm machinery bank, the FPCs were provided with 80% subsidy (nearly eight lacs) and the remaining was either covered by loan or by share capital. Whereas in custom hiring centre the subsidy was restricted to 40% and rest was to be covered by the FPC. This in the case of Gram Development PCL (Kannauj) added burden on the FPC as the returns from this activity was not sufficient to cover the loan premium. For FPCs using farm machinery bank services, as the capital cost for this was nearly covered; the revenue generated was easily routed to carry out operational costs. This benefit can also be extended to other FPC as farm machinery bank services are designed specifically for FPCs.

The equipments comprises mainly of tractor, trolley, rotovater, M.B. plough, Power sprayer, Seed drill, leveler and cultivator. In two cases the complete list of items was not given. Now for FPCs with an average membership base of 1000, it is not possible for one tractor to have that much outreach. Though the FPCs charge slightly less rent than the market price, the poor availability of such critical input service disbars the members from availing it. In the case of Jaunpur Vikas PCL, in spite of tractor and other items, there were around 15-20 members owning tractors which at times were given to other members on rent.

Use of mechanized items in agricultural activities comes with huge demand and it is all time-driven. For many small and marginal holding farmers, this service plays a huge role in cutting down some distress. The technical support in the application process was given by BASIX. But after the support handling of BASIX was not there, other FPCs have struggled in getting through all such tasks. And thus have stayed away from getting benefits. A successful activity of this manner can help in strengthening the membership base.

Extension services: One important role of the FPC is to facilitate information dissemination. As they have an outreach over a wide geographical area, they can play an efficient extension agent. Majority of the FPC who are into agri-input trading impart

knowledge on usage of seeds/fertilizer/pesticides/power sprayer and other relevant information regarding agricultural practices. In case of FPCs carrying out activities like seed production, crop diversification, fish cultivation etc. assistance is provided on practices and market understanding. Krishi Vikas imparts training session on significance and usage of bio-fertilizers, organic farming and new technologies. Indu Kisaan PCL and Swami Ramkrishna PCL conduct regular sessions on organic farming.

FPCs like Indu Kisaan PCL, Brijwasi Kisaan Samruddhi PCL and Mishrikh Agro PCL also help the farmer members with in applying for benefits under government schemes. In few FPCs the producer members are also helped in MSP procurement process. Mahatmane Spices PCL and Swami Ramkrishna PCL are into training programs of women SHGs on a regular basis whereas Gram development has conducted few training programs in the past. There are few FPCs who are into social programs like tree plantation, free eye test camp and technology literacy. In 04 FPCs which have dedicated promoters there are awareness program conducted for induction of new members. Swami Ramkrishna PCL also took part in multiple training sessions of NABARD in organic farming. The result was that three farmer members practiced organic farming of cauliflower and fetched good margins out of it. The chairperson also shares videos and trains the directors (through the directors it is shared to the farmer member) on various sustainable agricultural practices.

The kind and outreach of extension services is plotted seems to be scattered. Apart from one or two common services there are only few examples of other extension services. Acting as an extension agent can install trust among members and lead to proactive participation. Apart from imparting economic benefits which is quite challenging, the FPC needs to work in such areas which can indirectly connect farmers to the FPC. The FPC leadership due to lack of knowledge, managerial deficit and dependency build on resource institution are incapable to provide extension services which act as a catalyst in the overall value chain.

4.1.2 Output services: Forward linkages

For a FPC to create economies of scale and benefit out of it, requires to aggregate, process and market its produce. The benefit fetched depends on the areas where the FPC has worked and the margin is indeed higher (with more risks) than input services. For many FPCs in the study it has required 2-3 years to venture into the market linkages. In fact many FPCs have only stuck into the agri-input trading and renting farm machinery equipments and after analyzing the complexity involved in entering into the world of market trading. In deed for new entrants like FPC it is a risk taking step as the market is full of intermediaries which have fragmented the value chain and kept the producers out of it. Though the count is less but there have been certain cases and attempts of FPCs in this study that have taken up activities and establish market linkages. The forward linkages as part of the study will cover the procurement, processing, and marketing of produce done by respective FPCs.

Procurement of produce: There are very few examples wherein the FPCs have involved into procurement of farmer member produce. Krishi Vikaas PCL (Mainpuri) procures potatoes from its member producers. Azamgarh Agro PCL and Mahatmane Spices PCL procure wheat from its producers. Indu Kisaan PCL (Hardoi) is the only FPC which has involved into procurement of four different commodities. It procures fish, nursery saplings, vegetables and fruits. It provides nursery saplings to its member and organic farming training for vegetable cultivation. The number of farmer member's part of such initiatives is still very low (around 20% except Indu Kisaan where the percentage is 40%). The major constraints leading to such poor participation of FPC in forward linkages is: scarcity of capital, managerial deficit, poor access to market and incapability to take risk.

Processing: Processing involves primary and secondary processing. In primary processing simple tasks of grading and packaging are involved this can be carried out by members themselves. Secondary processing involves production of finished products out of the raw produce. There is requirement of capital, infrastructure and technology for carrying out the functions. The

enterprise benefits more through processing as it adds more value to the produce. Thus, removing more intermediaries out of the value chain. But in reality the FPCs have found to completely struggle in such areas.

Since there were very few instances of procurement of produce, there are even more less instances of processing. Indu Kisaan PCL taught its members the importance of grading in fetching better prices in selling of vegetables. Swami Ramkrishan PCL repacks the organic fertilizer it fetches from a private entity under its own brand name, “SRKPCL” and “Swami Anmol” as product name.

After the launch of Drishti Scheme by Government, many FPCs have shown keen interest in it. As per the scheme guidelines a grant of 60 lakh will be provided to eligible FPCs towards setting up of seed infrastructure facilities in its vicinity. This is a much



needed support given to the enterprises. But as many had built their dependency on the resource institution, in its absence they are finding it difficult to proceed. In FPCs were BASIX official joined as expert directors, the technical help is still being extended.

Market linkages: There can be different set of market linkages established for the sale of produce. FPCs can have transaction along with Government players, B2B connection with big market players like wholesale traders, BigBasket, Reliance Fresh, Safal

etc, local market setup, spot trading and future trading. The closer transaction with the far end buyer in the value chain more is the benefit reaped out of it. This all can be established only with proper market knowledge and information and with proper networking and risk taking ability.

In the current study there have been very few yet interesting market linkages established by the FPC. Krishi Vikaas PCL is in a business transaction of potato contract farming along with PEPSICO private limited. As per the working agreement, PEPSICO provides its seed to the FPC for cultivation of potato and procures the same. The only issue is that PEPSICO discards a section of potato which is not needed by it. The FPC has planned to open a processing plant of its own (through Drishti Scheme) to process the filtered potatoes. A similar transaction was initiated by PEPSICO and Gram Development but due to unavoidable circumstances the FPC ended up incurring huge losses.

Azamgarh Agro and Mahatmane Spices PCL dealt in MSP procurement of its aggregated wheat produce. Indu Kisaan PCL connected the fish merchants from the local market to its member who were into fish cultivation. There have been multiple such transactions conducted after seeing the initial benefits. It linked the farmers into nursery saplings with corporate players. As part of the CSR obligations the corporate used it under the tree plantation drive of the UP state government. The vegetable produce collected from the members was sold in vegetable market set up in prime locations of luck now. This transaction takes place twice in a month and the FPC is planning to increase the frequency. The FPC has tried to make little margins initially to rope in more members and has planned to increase it organically.

Nine FPCs have registered already on E-NAM portal through the help of BASIX and four FPCs are in the process of application. Despite of all the sensationalism around E-NAM platform launched by the central government in 2016, it has not been able to take the expected take-off. This is also seen in the FPCs case. Out of the nine FPCs, five FPCs have registered on E-NAM platform for nearly 2.5 years but none of them have done any sort of trading activities through it. As seen in the earlier cases how in spite of having mandi

licenses no activity has been carried out and there have been one success case of spot trading whereas two failed cases. The FPCs have not even ventured into the future markets like NCDEX/MCX. There were attempts in one or two FPCs to register with a broker on this platform but things did not work out towards the end.

Majority of the FPCs have struggled in these areas of value chain which might benefit the producer more. But presence of intermediaries and other constraints has refrained it from reaping such benefits.

4.2 Capability of the FPCs

Capability defines the efficiency of decision making, business activities, building trust and coordination among its members, leadership and with various other stakeholders. These are integral to the building of a sustainable ecosystem for the FPC. There are various parameters which need to be kept in check for assessing the capability. In the present study, capability will be assessed under categories of governance and capacity building.

4.2.1 Governance

The governance section will comprise of the composition of the board members, appointment of the board members, shareholder composition, potential and capability of the board members, presence and functioning of sub-committees, presence of promoters, presence of CEO and Staff, villages and Producer groups covered, general board meetings etc. It will also cover the significance and execution of business plan by the FPCs. This section will give an overview of the leadership quality and governing ability of the FPCs.

Composition and appointment of board members: As part of the UPBSN project there were Water user Groups (WUGs) formed in every village. Later on the WUGs were identified and collectivized first at village level (also known as village level institutions/ Producer Groups) and then clubbed into producer companies. The number of PGs in the FPCs ranged from 40 to 60. Further steps for formation, registration and other key activities were followed as per the “Policy and Process Guidelines for Farmer Producer Organisations” as prepared by the expert committee setup by the

Ministry of Agriculture in 2013. But there were areas of concern where the guidelines were either not followed or adopted right from the start. The resource institution identified representatives from the village level institutions (VLIs). And started the mobilization of farmers within and outside the PGs. The PGs were federated into producer companies.

For getting members of WUGs on producer companies was not a difficult task as trust build up was already there. In all the FPCs the members formed are majorly WUGs members. The identified VLI representatives were called for a meeting and board of members were selected (there was no actual election process). For FPCs with villages in the range of 6-8 there were representative from each village appointed as the director. In cases of Mahatmane, Navyug PCL, Navyug Kisaan PCL, Bachrawan Kisaan PCL and few more FPCs where the number of villages/WUGs/VLIs were high in number, one director was selected as representative for a group of villages. In other words, not all VLIs had their representative on the board of members. It was also observed that after few years of functioning the significance of these groups at grassroots level was lost and they had no say left in the collective action.

The numbers of directors were in the range of 05 to 15 in all the FPCs. Only Navyug Kisaan PCL had directors up to 15. Such high numbers does create an obstacle in collective decision making and coordination as majority of the board members used to be absent in the general board meetings. As WUGs formed under the UPBSN project comprised of farmers from various land holding category, there were presence of medium holding farmers and large holding farmers also on the board. In the case of Brijwasi Kisaan Samruddhi PCL none of the board members were from SMHF category. In the case of Shri Ratna Dev Kisaan PCL and Jaunpur Kisaan PCL the chairperson was from LHF category. The respective chairpersons were influential personalities from their region and with their presence it was presumed that a strong membership base would be set up. As per the study and observation, the former one did not seem to be functioning at all and its functioning was handled by the chairperson's son (who is not a member and is unaware of the concept of FPC itself); whereas in the later one the FPC did show a performance initially but later on the momentum slowed down.

In 04 FPCs there were board members who were representatives from landless category. This is a highlighting factor as a section of farmer members were landless and into contract farming. Interestingly, a major chunk of the FPCs chaired by SMHF showed active participation from the board members.

There was at least one female board member in all of the FPCs. The major reason being the SFAC guidelines of having at least one female board member for availing the equity guarantee scheme. In case of Bakshi ka Talab PCL there were no female board members present as it had still not applied for the SFAC equity grant whereas Mahatmane Spices PCL and Chandrikadevi PCL had no women representatives. Indu Kisaan PCL was the only PCL to have 80% of its board members (4 out of 5) as females (including the chairperson). In the case of Choudhary Rakmeshwar Dayal Farmers PCL though the chairperson was female (also landless) but the entire decision making was done by her husband (the FPC respondent in spite of not being a member also). Considering the feminization of agriculture and the success of women SHG movement in the country, the representation of women in the board becomes more significant.

In cases of Mishrikh Agro PCL, Indu Kisaan PCI, Mahatmane Spices PCL, Guru Kripa PCL, Brijwasi Kisaan Samruddhi PCL, Jaunpur Kisaan PCL and few more a larger composition of the board members were from dominant groups (mainly upper castes). Not undermining the strong caste structure evident in rural areas, such kind of composition indeed hampers the collective decision making and assessment of performance. Like in the case of Chandrikadevi Kisaan PCL, the FPC board members (from dominant groups) did not show its participation towards collective interests and led the FPC towards its shutdown.

There were board members and even chairpersons with political backgrounds (in past or present) or associations (in present) in nearly 75% of the FPCs. In Brijwasi PCL, a larger section of the board members are affiliated to political parties. They have been struggling to do sustain the FPC. In the case of Bachrawan Kisaan PCL (Raebareli), where the chairperson itself was the 'pradhan' (head of 1 or collective of villages) responded that presence of such members is also required in building the base of the FPC in the

short run. But this was not observed in the case of Chandrikadevi Kisaan PCL, Shri Ratna Dev Kisaan PCL and even Bachrawan Kisaan PCL itself. Here the FPC struggled to strengthen its base and sustain any activities. Few FPCs were quite aware of such consequences therefore followed a strong policy of no political interventions to be allowed in their decision making.

The age-wise distribution of the board members indicated that in all the cases the average age of board members were 40 years above. Only in Azamgarh Agro PCL all of the board members were below the age of 35 years. The chairperson and CEO were as young as 26 years. The young and dynamic leadership helped in increasing its member base from 250 members in 2016 to 1000 members by 2018. They have opened up two input centers and in their limited capacity educate the other board members on various relevant subjects.

Except Mahatmane Spices PCL and Indu Kisaan PCL none of the FPCs followed any rotation policy for change of chairperson and directors. In the above two FPCs board resolution were passed in case of poor performance displayed by any board members. Whereas in other FPCs due to inactiveness displayed by the other members the board members were not changed which were formed in the initial phases. In three FPCs namely Bachrawan PCL, Mishrikh Agro PCL and Azamgarh Agro PCL there were instances of directors resigning on personal grounds. This was mainly subjected to disinterest and efforts required in working towards collective action.

Capability of the board members: The qualification level of board members in the FPCs on an average were found to be below par i.e. neither they had any proper education and neither they had soundful knowledge to understand the business dynamics and functioning of a collective agency. In majority of the cases the board members were incapable of understanding the financial statements and accounting. Though the board members who are primary producers are expert in doing their individual agri-business and are aware of the system, understanding of the above two variables is a necessity to run a successful enterprise. This is where the resource institution filled in the gap but instead of

facilitation it led to sheer dependency. For accounting activities the FPC have outsourced the work to outside accountant except Swami Ramkrishan PCL which have an accountant on board. With such constraints in many cases it was found that the FPCs work was burdened or carried out by one board member (and they were the respondent during the interviews also). For example in Mishrikh Agro PCL, Jaunpur Kisaan PCL, Bachrawan PCL, Gram Development PCL the FPC was actually run by the chairperson himself. It depends on the capability of the individuals that how strongly the FPC performs.

Whereas in case of Mahatmane Spices PCL, Indu Kisaan PCL and Krishi Vikaas PCL there was strong coordination and participation observed among its board members. This resulted in efficient collective decision making in the executing the business plan.

Nearly seven FPCs had sub-committees formed for carrying out different functionalities. The work was primarily related to finance, input procurement, marketing and executive committee. There were group of directors appointed for such committees. In case of Mahatmane Spices PCL there were directors appointed separately to manage the farm machinery bank. The work of such sub-committees were discussed and assessed only in certain FPCs where collective decision making was present. In case of Bachrawan PCL the committee was formed but it was not functional as directors were not actively working. Such sub-committees have important role to play in the overall functioning of the enterprise. But the importance of it was not felt by the FPCs and execution of work was found to be very poor.

Annual general body meetings, Board meetings and Business plan: All of the FPCs conducted annual general body meeting once in a year to discuss on important issues. This was primarily organized by BASIX in the initial phases and the venue for the meeting was the registered address of the FPC. But due to insufficient capacity to accommodate and poor planning of organizing the meeting, the participation of members was observed to be poor in majority of the cases. This added to the rising disinterest among the members as they were left out from the business planning of the enterprise.

Swami Ramakrishna PCL (Azamgarh, UP)

With the dynamic leadership role played by the chairperson, the functions of each director have been assigned and progress of it is regularly checked. It has a list of following items proposed in its business plan which has already been presented in the board meeting:

- FPC has collaborated with Krishi Vikas Kendra to open wholesale distribution centre for various commodities. Baseline survey plan has been already executed.
- Women SHGs involved in primary & secondary processing activities under NRLM scheme. It already has a women director who is monitoring the work of few women led SHGs (also member of the FPC).
- Poultry cultivation (kadaknath murga) and Goat cultivation which will fetch livelihood sources to various members.

The Chairperson has started with cultivation of black rice and few more crop varieties to build trust among its members. It is evident in rural areas where extending services or information comes with the common question of why you are not cultivating it. The chairperson has further carried out social activities in election campaigning like awareness of voting and drinking water services. This served as a platform for the promotion of FPC and no revenue was fetched out of it.

On the other hand, the board meetings were kept on a regular basis (one per month) in very few cases. The frequency of such meeting increased during season time. In cases like Gram Development PCL, Jaunpur Kisaan PCL, Guru Kripa PCL and few more the frequency of meeting was reduced down in once in 3 months. In FPCs which had a small number of board member base the attendance of all the board members were there in all of the board meetings. In FPCs with eight directors or more, attendances of the board members were found to be very poor. The location and notification also mattered for the attendance percentage. In FPCs like Indu Kisaan, Mahatmane Spices PCL, Azamgarh Agro PCL, Swami RamKrishan PCL the meetings was organized in the office premises and notification for the same was given at least 4-5 days prior via call or messages. Gram Development PCL conducts its board meeting in different villages so that respective members can also be a part of the meeting. As members were kept out of the board meetings, it was surprising to see no minutes of meeting prepared for the board meetings. There were FPCs like Chandrikadevi PCL, Shri Ratna Dev Kisaan PCL, Bakshi ka Talab PCL were no board meeting takes place.

As per the SFAC guidelines for equity grant and the Policy Framework Guidelines (2013), there is need of a business plan in the initial one year. This as a prerequisite is difficult for a FPC to fulfill where half of the board members are unclear on the functioning and objectives of the FPC model. Whereas BASIX was functional in preparing business plan for the FPCs but apart from three examples none of the FPCs leadership had any clear idea on this context. The field study and observation clearly indicate that the FPCs had no clear demarcation on business plan and annual plan. For a sustainable business model a business plan plays a key role in designing of the objectives and vision for the enterprise. In its absence the decision making is not clear to everyone and things go unplanned. As seen in the case of Chandrikadevi and Jaunpur Kisaan PCL. On further research, majority of the FPC representative had future business plan proposed and not discussed in any of the meetings.

The importance of business plan is integral to the efficient functioning of FPC. Firstly a business plan is needed based on the needs and context of the FPC and secondly medium or channel is required to execute the particulars in the plan. Without a strong and efficient leadership this is found to be difficult to perform.



4.2.2 Capacity building

Capacity building comprises of the training given to the board members primarily regarding financial statements and accounting and training imparted towards staff members (if present). This also comprises of the capacity building of institution and business needs which is already covered in the earlier sections.

Shareholder base: In all of the FPCs the members are equivalent to shareholders except in case of Bakshi ka Talab PCL and Shri Ratna Dev Kisaan PCL which has not shareholders. The average member base for all the FPC stands at 900 members. Only four FPCs (all are new ones) have member base below 500. As per the policy framework guidelines it is required by the FPCs to have a member base of 1000 which has been achieved by 75% of the studied FPCs. But even these FPCs have failed to add any active members since 2018 (practically after the shutdown of UPBSN project). Though there are promoters with designated functions present in six FPCs the performance assessment of theirs is hardly carried out in any of the FPCs.

It has been argued on the rationale behind such a huge member base which firstly is difficult for any new FPCs and secondly the bigger question lies whether all of the members are getting benefited by the services provided by FPC. The second question is answered in the section 4.2 indicating the poor utilization of the services by the members. A different approach would have been to start off with a smaller member base with less geographical outreach (probably 4-5 villages) and then incrementally move towards a larger base (for raising the share capital). This transition towards larger base should only be focused in case the FPC has been successful in delivery of services to the smaller base and has conducted a feasible study for its expansion. All of this was found to be missing in the FPCs except Indu Kisaan PCL which currently has a member base of only 250 members and is relatively functioning well. For a larger member base to work together as a collective agency there are more resources required and more constraints to deal with.

Training to the board members: As observed in section 4.3.1 the board members in majority of the cases have found to be incapable

to carry out the functions assigned to them. Thus training (or capacity building) of board members becomes a necessary tool to install the value of ownership and make the enterprise self-reliant and sustainable in the longer run. If the decision making body is not capable then it is doomed for the company to function under such circumstances. Except Indu Kisaan PCL, Mishrikh Agro PCL, Mahatmane Spices and Swami Ramkrishna PCL none of the FPCs worked towards capacity building of its board members. For the last two FPCs it was the presence of BASIX official as expert in case of Mahatmane and as chairperson in case of Swami Ramkrishna which imparted training and knowledge to its board members. The chairperson of Mishrikh Agro PCL having technology knowledge introduced accounting software “Quickbook” to its board members and software “OK Credit” for records of credit services. Board members in case of Indu Kisaan PCL have visited to successful FPCs in Madhya Pradesh for better understanding of the FPC model.

The board members who are part of the leadership team need to be well versed with the concept and objectives of FPC model. They should have soundful knowledge on the business aspects and market linkages. The resource institution’s role also becomes integral in the capacity building of the board members which further results in meeting of the institutional and business needs.

Appointment of CEO and capacity building of staff members: There are only seven FPCs with a CEO appointed to fill in the managerial deficit in coordination with its board members. While few had inducted CEO during the initial phases (like Indu Kisaan PCL and Choudhary Rameshwar Dayal PCL) others had got the CEO on board after few years of functioning. CEOs were appointed as board resolution only in two cases whereas in other five cases it was randomly selected. Only four FPCs had their CEOs on payroll, whereas two FPCs had CEO on-board because of social interests.

Indu Kisaan PCL (Hardoi, UP)

The CEO appointed by the board of members is the ex-deputy project manager of UPBSN and was found to be functioning in full state as his expertise in the domain area proved to be efficient in designing and executing the business plan. A greater,

advantage in this case was the coordination between the CEO and board members which helped in connecting with members for carrying out planned activities (primarily output services). The CEO planned out with works of fish marketing, nursery saplings vegetable selling, and use of bio-fertilizers and fruit cultivation. This was discussed along with the board of directors and resolution was passed for it as the annual plan goals. As the directors were closely connected to the members, it was their duty to build trust among members for the activities.

The CEO has a team of five staff members who are on payroll and their salary has been finalized by the board members. There are three supervisors (with salary 10k) assist the CEO in vegetable trading in the Lucknow market, and distribution of nursery saplings. The other 02 staff members (with salary 5k) have a multitasking role involved in logistics and maintaining records etc. The CEO provides them regular assistance and training wherever required.

The CEO from Indu Kisaan has not withdrawn any salary due to limited capital with FPC but the FPC has been regularly paying the salary for the staff members. The CEO in cases of Azamgarh Agro, Swami Ramkrishna, and Brijwasi Kisaan Samruddhi PCL had very limited role primarily related to procurement of agri-inputs. Efficient work-handling was only observed in cases of Krishi Vikas Farmers PCL and Indu Kisaan PCL.

The role of CEO is more important in establishing market linkages and also in procuring of the produce. Apart from this it has to deliver other input and output services in his/her managerial capacity. It was the CEO's effort in case of Krishi Vikaas PCL that the FPC has been successfully doing transaction of potato along with PEPSICO. The staff members present in Brijwasi and Choudhary Rameshwar Dayal PCL have very restricted role and capacity.

In order to attain the professional management of private limited company, the FPC needs to have expertise on board. This can be found from within the ecosystem as in the case of Azamgarh Agro PCL or in the form of expertise that are willing to join as in the case of Indu Kisaan and Choudhary Rameshwar Dayal PCL. And this has to be supported by full time working staff members in the medium run. Mahatmane Spices PCL did not feel the need of a CEO as they already had a BASIX official on-board acting as an expertise doing the same role as CEO. This was also seen in the few more FPCs but none of them had successfully attempted towards market linkages of its produce except in seed production.

4.3 Capital

Capital in the form of term loan or working capital loan or fixed capital is essential for smooth functioning of any enterprise in the short and long run. Any kind of business activities involves huge amount of risks. Especially in agriculture there are risks involved at pre-harvesting, harvesting and post-harvesting stages. And for mitigating the risks, there is always need of capital required at each and every stage. More importantly it also matters how effectively has the capital been used.

4.3.1 Financial sources and its utilization

A term loan is required to carry out activities planned in the long term (2 to 5 years; normally the business plan). This intends to cover capital intensive activities that will generate revenue in the long term. For e.g. buying equipments and additional property. This is will also be beneficial in improving the credit score of the FPC and help in availing large loans. On the other hand a working capital loan is meant for short term annual or business plan. This focuses mainly on the operational costs of the enterprise. This capital is critical for sustaining the FPC on a daily basis.

In the present study, term loan in the form of grant support has been covered largely by UPBSN grant and SFAC equity grant. The amount has not sufficed to entail the investments actually required. Whereas the process involves compliance issues and other eligibility norms, which even after hand-holding of BASIX was not successful in certain cases. Currently only 10 of the total 16 FPCs have availed the tranche I equity grant of SFAC. Even after more than four years since its inception, three FPCs have failed to avail the equity grant which could have benefited the FPC in many ways. It was surprising the new FPCs with 1-2 years of lifespan have not even received the UPBSN grant. The respondents reported that due to completion of the UPBSN project in December 2018 the process could not be taken forward. And in majority of the cases the grant was sanctioned at least three years after its registration. For such a huge project funded by both World Bank and UP State government this should have been a priority task for the UPBSN administrative. The FPCs have thus failed to generate any sort of term loan capital.

Apart from one or two cases none of the FPCs have been successful in getting working capital loan. In such cases all of the term loan capital has been utilized in the operational costs mainly in agri-input trading.

- Mahatmane Spices PCL was successful in getting Rs. 10 lakh from BASIX Lamp Fund and has applied for Rs. 18 lakh from CCL. It will utilize the generated capital largely in its input centre and MSP authorization centre.
- FPCs with farm machinery bank access have taken loan amount of 1-2 lakhs from banks or through BASIX. All of them have managed to maintain a good repayment rate.
- Gram Development PCL had to take a loan of 04 lakhs for its custom hiring centre and has struggled with the repayment. Thus it had to utilize the 10 lakh loan which it had availed from Ananya Microfinance towards the loan repayment.
- Krishi Vikaas Farmers PCL took a loan of Rs. 5 lakh from Samunnati Microfinance for buying of potato seeds.
- Navyug Kisaan PCL is in the process of getting CCL revolving fund.
- Swami Ramkrishna PCL has proposed to avail 10 lakh grants from NABARD as working capital which it will use in setting up of another five input centers.

Work capital can be availed in the form of loans from NBFCs/ MFIs, loan from banks, grants from various agencies. In 75% of the cases where the FPC board members (even with the help of BASIX) approached the banks in their regional areas, loans were denied straightaway. In fact in few cases, the FPCs were the largest account holder in terms of overall transactions. The reasons highlighted were that the bank officials still were not aware of the FPC concept and considered them as private company and not as priority sector (as in the PSL guidelines of the RBI). Apart from this except one FPC none of them have any property in the name of FPC to present as collateral or mortgage.

There were only two instances FPCs which approached the microfinance institution for capital needs. It is essential for the FPCs to have an understanding of lending sector. The NBFCs and

MFIs are the ones which might have a stronger pitch in granting loans to the FPCs. With a good repayment rate set, it might be a good chance for the FPCs to display a decent credit score for availing bigger loans.

It is well established in the success of SHG movement, with the availability of favorable capital there is need of efficient financial management to utilize the resources efficiently. This might be achieved with additional managerial support or facilitation from the resource institution or from within the FPC ecosystem. In the present study there is dearth of both capital and capability along with ownership issue.



4.3.2 Business revenue sources

Apart from the financial sources, the FPC can generate capital through its business activities. The activities can be either at the forward linkages or at the backward linkages or it can spread across. This also depends on the stage of agricultural value chain the FPC is positioned. For example: A FPC can carry out seed production activity through involvement of 100 farmer members. Now after the production, the FPC buys it from the farmer member at an optimal rate and then sells it out at its input centre to both

members (with some discount) and non-members. Now the revenue can be enhanced if the FPC enters into value addition process. It does packaging of the seeds into various sizes and has a brand and product name of their own. It can further get this into the market or sell it to other players. This is one of the examples and there is no comprehensive list of activities through which the FPC can generate revenue.

For 75% of the FPCs, trading of agri-inputs has been the primary source of revenue. Out of these nearly 50% of the FPCs have no other business revenue sources than agri-inputs. Till now, trading in Agri-input services has given mixed results. FPCs are able to build their network by trading in Agri-input services also gained skills and experience to run business before venturing into difficult business model. But, their profit of margin is very low as cost of procurement, storage and transportation is very high. FPCs involved only in this will not be able to sustain. Currently not even 50% of the membership base buys its agri-inputs from the input centre. There is scope to increase the margins but it has to be supported with additional input centers for which again capital is required.

Krishi Vikaas Farmers PCL (Mainpuri, UP)

The FPC is working with more than 1100 farmers in Mainpuri district of UP. After receiving grants of 4.5 lakhs from UPBSN and with shareholders capital the FPC started trading in input services and built relations in farmer community with success. Currently, they are operating from two centers in Mainpuri district and generated profit of Rs. 2, 55,620 in financial year of 2017-18. This profit divided in half between FPC and independent party who run their services. FPC adopted this model to minimize risk by diverting cost of storage, transportation and HR to independent party. This is a win-win situation for both

FPCs have also generated revenue through renting of farm machinery equipments. A very small base of members avail the services during the season time. Rent is charged to the users slightly below the market price. But since each of the FPCs has only one tractor and other items, there is huge gap between the supply-demand. Even the geographical coverage is limited to few villages. There are farmers who have tractor but avail other equipments from the FPCs, this also generates some sort of revenue. For Gram

development PCL the cost incurred is more as they have got into custom hiring centre wherein the subsidy in comparison with farm machinery bank is nearly half. There is huge scope in this sector as the margins can be extensively increased with admission of more such equipments and through appropriate channels.

There are few FPCs indulged into other business which have generated scale of revenues. Certain examples are as follows:

- Krishi Vikaas PCL earns around a profit of 40 paisa per quintal on the aggregated potato produce it sells to PEPSICO.

Krishi Vikas Farmers PCL FPC got contract with PEPSICO through Basix for cultivation of potato. FPC has written agreement with PEPSICO in which FPC will get potato seed at rate of Rs. 2300 per quintal and PEPSICO will buy potato at rate of Rs. 910 per quintal. With this agreement, FPC was able to sell 17500 quintal of potato to PEPSICO and got business of Rs. 9000000 and profit of Rs. 2, 86,908.

- Mahatmane Spices PCL has diversified into other practices as follows:
 - ❖ It has started with its first batch of wheat (zinc) seed production and is projected to earn at least 75000 out of the transaction.
 - ❖ It gets funds for various programs under the Ujwala Panchayat scheme, out of which it earns a substantial amount of revenue through cost-cutting.
 - ❖ It is the only FPC to earn revenue out of exposure visits of agencies like BIRD, Bill and Melinda Gates Foundation and HCL Foundation.
 - ❖ It has entered into high value crop cultivation and will generate revenue out of it in near future.
 - ❖ It is an authorized corporate agent for micro-insurance policy of LIC India and will begin its work from next fiscal year.
 - ❖ It has also proposed to formation of another FPC under its ambit through NABARD program.
- Indu Kisaan PCL earns substantial amount of revenue from its core activities like:
 - ❖ Fish cultivation: It has connected its farmer members

with local market merchants and in the transaction it is currently earning a small margin. It has plans to expand the market outreach and involve more members in it thus improving on its margins.

- ❖ Nursery saplings: the FPC manages to earn around Rs 2.5- 3 on every sapling. This is calculated after incurring all the expenses.
 - ❖ It also earns substantial revenue from trading of vegetable produce in Lucknow markets. It has proposed to increase the market outreach by involving more farmer members.
 - ❖ It had involved farmers into papaya cultivation in early 2019 but the transaction turned out to be in losses. But the FPC after learning on its mistakes has planned to again venture into it.
- Swami Ramkrishna PCL has got its first consignment of delivery of 500 bags of organic fertilizers and has projected to earn 40-50 rupees on each bag. The next consignment would be of 10000 bags therefore increasing the margins of the company
 - Azamgarh Agro PCL earns a substantial amount from delivery of its aggregated wheat produce to flour mills. Right now the quantity procured is on a small scale which can be further increased for better outcomes.

With the above examples it seems that there is still lot to do for the FPCs to sustain its functioning. But even such initiatives are to be highlighted and needs to be discussed on a larger scale. FPCs in the nearby districts are well connected even after the project has got completed. Such platforms can be used for knowledge sharing and improvising. There are also cases of non-revenue activities wherein the FPCs have entered for reasons of promotion and social causes. Even these areas play a good role in building the image and association of the FPCs.

4.3.3 Requirement of capital

For a FPC there are various functioning areas like operational costs, infrastructural setup, revenue expenditures etc where capital

infusion is needed on a regular basis. This will be largely related to the business, capacity and institutional needs of the FPCs. In all of the above sections, the importance of capital has been well noted. There are certain areas common for all of the FPCs where capital is essentially required.

For FPCs with only input centre, there is need of capital in setting up more such centers to improve its catchment area. There is need of working capital to increase the supply and ensure timely delivery of the same at these centers. There are FPCs who need capital for keeping dedicated salesperson at the input centre. Not many have entered into farm mechanized items. With favorable capital they can avail such services to their members and earn revenue out of it. Further there is also requirement of a driver and maintenance costs of the machines.

Except one FPC of Navyug Kisaan PCL others have their office/ input center and warehouse on a rent seeking basis. With a property on their name, the FPC can save such operational costs and also present it as collateral. Very few FPCs have got into use of technology like software usage in accounting and financial statements and are completely dependent on the third party. Only 01 FPCs had a computerized system at its office area and will be using it for digitization of the records. As the FPCs expand its business it needs to have such infrastructure adopted in the longer run. There are various other infrastructural areas like cold storage units, transportation vehicles etc which will be needed for high performing FPCs.

5 Key lessons learnt

As per the research findings and observations, it is well understood that the characteristics and functioning of each FPCs is quite contextual in nature. There are certain commonalities observed as all of the FPCs were mobilized and handled by the same resource institution under the same projects. But majorly it differs with each other on various parameters. This study highlights numerous independent and dependent factors leading to such differences, along with understanding of the constraints or challenges to achieve a certain set of collective activities. This chapter covers the key takeaways from performance and functioning of certain FPCs which can be used in a contextual manner by other FPCs.



5.1 Viable Business Models Are Yet to Emerge

This is a key area where majority of the FPCs have struggled to efficiently carry out revenue generating activities. But there have also been innovative ideas executed which have helped the FPCs in generating revenue and building membership base. The generated revenue can be further utilized for the functioning of the FPCs in the short and long

run. Successful business activities are developed through combination of capital-capability (as discussed earlier).

FPCs have struggled to move beyond agri-input trading thus restricting itself in the value chain: With no initial business expertise, it is beneficial for the FPC to start with agri-input services. And this has been facilitated by the resource institution also. This enhances the accessibility of inputs to the farmers and helps the FPC in attracting more farmer members. But there are not enough margins in this and there is strong competition from the existing local players. Thus this practice is not sustainable in the longer run. Board members are basically farmers and their line of thinking does not go beyond farming. This behavior can be explained through the concept of “bounded rationality” (Aoki, 2006). According to it, we human beings make decisions that are rational, but within the limits of the information available to us and our mental capabilities. The incapability of the board members along with externalities has restricted the FPC only in the pre-harvesting stage and has failed to move beyond in the agricultural value chain.

Uneven demand meet of agri-inputs have raised dissatisfaction and underutilization of services: The supply-demand balance in the agri-inputs being disrupted badly has resulted in farmer members continuing its services from existing local players. There is issue of accessibility which keeps farmer members from the reach of such services. Primarily it is the farmer members in vicinity of the input centre, who avail the services. Further with changing agriculture practices, the list of agri-inputs like seeds, fertilizers have been diversified to which the FPCs have failed to cope up with. The issue of availability and accessibility has also impacted the business activity of farm machinery equipments which is a potential revenue generating source. No special incentive has been designed for the members who can also be instrumental in increasing the utilization of its services and also in increasing shareholder base of the company.

Absence of provision of financial services to farmer members which can also serve as an alternate source of revenue: FPCs being connected to the farmers in the local region can be used as an extension agent by banks for giving out financial services like crop loan, cattle loan, cattle insurance etc. FPC can earn revenue in the form of interest intervention. There are centrally sponsored and state sponsored schemes where

the FPCs can be incorporated into this. But due to poor nexus with banks and incapability of the leadership, the FPCs have not managed to develop this as an alternate source of revenue.

Poor or absence of networking with other key actors in the FPC ecosystem: FPC concept being in its nascent stage has not able to develop strong nexus with the other important actors like farmers, banks, market players, government agencies, agri-technology partners. And for any activity to flourish there is need of networking so that there is dependency on each other and everyone is benefited through it. There is no proactive support from government agencies for the promotion of the FPC model. The bonding within the FPC structure and FPC ecosystem is essential to strengthen the position of FPC in the value chain. Absence of such coordination has resulted in the inefficiency of the FPC leadership to build a conducive environment for its functioning.

FPCs have also focused on non-revenue generating activities and other social welfare programs: With good geographical outreach FPCs have carried out welfare activities resulting in more awareness and reaching out to beneficiaries. Rural population which lives as a close-knit community, the presence of FPC in adjacent villages ensures door step delivery of many services. Numerous government welfare programs can be executed through FPC. Such sort of initiatives largely depends on the interest and active participation of the leadership.

5.2 Building Capabilities of FPCs is a Long Drawn Process

With resources in place it becomes essential to develop methods to optimally utilize the resources and enable sustainable environment. This enlists the different measures planned by the board members/CEO fetching various benefits to the FPCs in the form of enhanced revenue, large membership base, increased popularity and indulging into various activities. This entire process depends on the capability and potential of the FPC leadership.

Step by step approach to be adopted for efficient functioning of FPCs in incubation stage: Benefits of collective action are maximized in small groups as in small numbers there are stronger linkages in terms of trust,

coordination, ability and collective decision making. This controls the conflict of self-interest over collective interest. FPCs have focused on enhancing shareholder base to build larger equity base and to get benefits from government schemes which have a higher shareholder base as one of the important criterion. With such huge numbers there are issues of financial needs for daily operations, management issues, free rider problem, problems in collective decision making etc. Without any plan for better outcomes through collective action it is better to have an organic approach in the formation of FPC. With proven results for a small batch, the FPC will be able to inculcate trust among other farmers to reap benefits out of collectivization.

Role of FIGs/WUGs/VLIs etc has been minimized after the formation of FPC: the farmer interest groups formed at village level constitute an important element in the decentralized governance of collective agency like FPC. But post FPC formation the role and importance of such groups fade away thus creating a question mark on the comprehensive representation of each farmer's interests and decision making. As the FPC expands geographically, considering that it cannot have a huge board member list, the presence of representative from such group becomes more important in reaping the benefits of collective action.

FPCs are managed by farmers with little or no experience in organizational management: As FPCs largely constitute of small and marginal holding farmers which come from the poor sections of the society, the educational level is quite poor in the leadership. They have expertise in agriculture practices but lack any entrepreneur skills and business spirits. They have not succeeded in procuring outputs from its members as they do not have any effective business plans or any market linkages to fetch better outcomes. They have limited technical knowledge of accounting and financial statements thus building dependency on other players. This all has kept the farmers away from taking risks to enter into new ventures.

Strong interest and active participation is needed from the board members for better performance of the FPC: The capability of the chairperson and other board members has a huge role to play in entrusting the significance of collectivization. For this they need to have a broader understanding of collective action, governance of collectives, and performance and process factors of FPCs. They are

incapable enough to tackle the challenges and constraints to collective action. In absence of which the motivation and participation towards collective interest fades away. And FPC being a non-profit model, the board members feel reluctant to spend more time in management. This results in the management being burdened on selective board members and ultimately results in the shutdown of the FPC. This is the adverse consequences faced in cases of principal-agent problem as described above.

Obligatory approach by resource institution has resulted in ownership issues by the FPC: As a resource institution the primary objective should be to facilitate knowledge and information to its client so that they develop a broader understanding of the functionalities. It is well evident that the context and characteristics of the primary actors poses a big challenge in the facilitation. Rather the RIs have taken an obligatory approach and unknowingly build a dependency among the FPCs. In other words it can be also argued that the farmer members are themselves not self-motivated and are averse to taking up of new tasks with fear of unaware risks. But this is a well understood behavioral pattern. Within its individual capacity it is difficult for the farmer to mitigate the risks involved in agriculture. This is where the RIs role becomes more predominant right from the formation stage to the collective decision making of the organization.

Limited set of extension services provided by the FPC: Though there is presence of farmer friend (also known as 'kisaan mitra'), Kisan Vikaas Kendra officials, agriculture experts etc but the outreach has been limited. As part of agri-input trading the FPC representative mostly guide the farmer members (who avail the services) on the usage of seeds, fertilizer and pesticides. Apart from this there is absence of any other extension services being extensively delivered. With presence of progressive farmers on board, information related to government schemes are also disseminated to the farmer members. With enhanced capability of board members; technical knowledge, financial literacy and agricultural practices can be imparted to the farmers.

No performance check of the board members leads to stagnancy in growth of FPC: There are no strict rules and regulations set by the board members for the functioning of the FPC. The roles and responsibilities of respective board members are not defined leading

to free rider problem in carrying out the functionalities. The performance and progress of the board members (and in turn of the FPC) is not assessed and rotation policy is not present for replacing FPC board members in case of poor performance. Further with poor progress of FPC there is no motivation for other members to take up the leadership role.

Political intrusion from vested interests has impacted the functioning of the FPCs: With rising awareness of new concept of FPC model, it has faced same political intervention which was observed in the failure of co-operative model. Local players like 'pradhans'/ex-pradhans, gram/block level officers, local self-government officials and farmers with potential plans for entry into politics have shown interest in being member/board member of FPC. Such intervention has impacted the decision making and functioning of the FPCs. This has disturbed the non-profit model of the FPC and has given pathway to people for seeking profits.

Long journey for the FPC to establish market platforms for fetching better outcomes: Agricultural marketing has one of the huge grey areas which need to be filled in order to escalate the FPC's position in the value chain. There are various limitations to farmer's access to markets as the network is occupied by multiple middlemen, local merchants, information asymmetry, and inability to take risks, poor infrastructure and primarily scarcity of capital. There have been instances of FPCs establishing market linkages but with lower scale of economies. The absence of value addition services is one of the concern areas for this.

The poor performance of the E-NAM portal has not benefited the producers in trading their commodities. Spot trading traditionally has not been a success as during the procurement there are rigid conditions put up by the corporate or big buyers. This ultimately adds to the costs incurred by the FPC in the production phase. Thus due to incapability and absence of institutions, the producers have continued its relation with the local market and Mandi players for procurement of their produce even after suffering losses.

A long term support handling is needed by the FPC to effectively carry out its business planning and execution: The risk taking ability and management tasks burdened on the board members brings adverse impacts on the individual capability and the collective agency. Therefore

there is need to divide the function of ownership and management in such enterprises. The FPCs have not been able to afford professionals to fill the management deficit and get support in key areas of marketing and value addition. FPC needs constant support and hand-holding from resource institution or/and management professional to carry out its function in a sustained manner. It is not necessary that each and every FPC needs to be completely self-reliant. Even with training and knowledge imparted to board members there will be need of assistance at all stages of incubating, growing and mature stages of FPC.

5.3 Meeting Capital Needs of FPCs is Proving to Be Difficult

Capital infusion acts as a fuel to run any business activity. Without adequate and regular flow of capital and optimal utilization of it, no small-scale or large scale activity can be effectively carried out. Its sources can be from external agents or can be generated from within the ecosystem. FPC ecosystem has been struggling enough to meet its capital demands and the medium for capital generation has been restricted.

Lack of working capital has restricted the FPC in sustaining and diversifying their activities: in the absence of regular flow of working capital it becomes difficult to carry out the operational activities and further sustain the business. There is need of working capital for buying of agri-inputs, manpower, rent purposes, training programs, marketing, electricity and other miscellaneous charges. The major source is the share capital raised from shareholders which cannot be generated in larger amounts. With failed or poor innovative ideas and practices the generation rate of working capital has slowed down with respect to the operational costs. Agriculture being a cyclical economy, working capital is like the lifeline for FPC in the short run and subsequently in the longer run.

Inadequate infrastructure and logistic facilities has been a huge hurdle in extending services to farmer members: FPCs in the agri-input trading have their input centers mostly on rent, which adds to their operational costs. And with further capital crunch they are unable to enhance the size of their input centers or create additional centers to meet larger

demand. FPCs have failed to procure commodities in bulk from their members and certain prime reasons attributing to this failure is the absence of any dedicated warehouses, cold storage units, logistic facilities etc. With no further subsidy support for farm machinery equipments, FPCs haven't been able to procure more items in case where demand has surged. FPCs have hardly entered into digitization of their records which can ease the process for assessment.

Capital support schemes are not targeted at dedicated areas of functioning: there are blanket schemes designed for capital support to FPCs. Such policy actions are not serving its fullest potential as the capital support is not adequate and is poorly targeted. And business handling being a new venture, the FPC leadership has not gained the capacity to efficiently utilize the available capital resources. Capital infusion is missing at each stages of FPC right from incubation to mature stage.

Bottlenecks in support from banking sector and other lending institutions: no particular government scheme or any assistance program can comprehensively sustain the FPC. In such cases it becomes necessary for the FPC to either generate its own capital or take support from other agencies like banks, microfinance institution, NBFCs etc. FPC being a new concept in the Indian market, agents of such institutions are mostly reluctant to lend it to the FPCs. This is coupled with compliance issues, strict eligibility norms and credit rating. Such instances make it quite difficult for FPCs in its incubation stage and it is worse for FPCs where no particular assistance is provided from government.



6 Recommendations and way ahead

As per the findings of the present study, it has been observed that characteristics of FPC depend on various factors and there is no particular blueprint which can be implemented across the spectrum. Also there are multiple actors in the FPC ecosystem who's interlinking and relationship act as a key determinant. There is need of developing strong links between these actors for successful functioning of the FPC model. The designs should be based according to the FPC context and only after understanding the needs and constraints of its performance and ability. The study also presents that the business model of the FPC is strongly linked with capital infusion and capacity development. There is need of both capital and capability at pre-harvest, harvest and post harvest stages of agriculture.

6.1 For FPCs to Reach Viability Need Policy Support and Entrepreneurship

The FPCs need to have a long term vision with short term goals as the integral approach for attaining growth. Currently, largely there is absence of effective business plans and means to achieve the objectives. Without leadership capabilities this becomes difficult for the FPC to function and develops ownership issues. Based on this majority of the FPCs are struggling to enhance its performance. There are two core approaches or needs, a) Firstly; a business plan needs to be designed on the regional context and drivers of the FPC, b) Secondly; there is need of capability development of the leadership to generate methods to execute the activities. Both of which can be fulfilled either by a full-time professional support (in the form of CEO) or through a resource institution (if any). But in absence of any government supported agencies or RIs, it will not be possible for every FPC (especially for the new entrants) to have professional support and in such cases the FPC needs to come up with a cost-effective model. Following is the recommendation list to adapt effective business models.

Incentive to members over non-members: Almost every FPC is giving agri-input services to members and non-members on parity. Any non-member farmer can get input material at same rate and at any time. The only noticeable incentive is in case of supply shortage where first preference is given to FPC members. So, non-member farmers

have no reason to join FPC. The FPCs should give special incentives to its member like discount on sale of input material and premium use of farm machinery equipments. This will build confidence among members as they will see some benefit out of their investment in the company. Same reason will attract non-members to join FPC to avail benefits reserved for members.

FPCs should move towards collective farming of a particular commodity: The leadership should promote collective farming of a particular commodity from its farmer members. The commodity to be focused needs to be from the high value crop category. A better decision making will be enabled if the regional agricultural conditions and market demand is well versed with the leadership. With bulk produce of a commodity, there will be higher bargaining power and will enable easier marketing. Better price outcome will be fetched with primary and secondary processing in place.

Giving easy access to APMC mandi to FPCs: Though certain FPCs have availed mandi licenses but the registration process is quite complex and full of compliance issues.

- The respective state governments need to ease out the registration process and ensure market entry for FPCs.
- The mandi cess levied on the FPCs for any transaction even after availing mandi licenses, needs to be scrapped away to give incentive to develop more market linkages.
- Commodities should be removed from the ambit of APMC mandis so that FPCs gain the freedom of trading their produce and develop their own marketing channels.

Develop the platform of futures market for FPCs: The futures market ensures better price discovery and hedging their potential price risks by taking future prices into consideration (Chatterjee, Raghunathan, & Gulati, 2019). The success of futures market (which is still a very new concept) has been restrained primarily because of factors like,

- a) Existing traditional market relationships and the trust deficit with new interventions,
- b) Scarcity of FPCs involved in marketing and processing stage,
- c) Lack of capability and capital faced by the FPCs and
- d) Logistics issues.

The above constraints need to be addressed in the development model of FPCs to strengthen its position in the market areas and fetch better prices.

NCDEX the largest agri-commodity exchange in India has worked in the areas of connecting the farmers/FPCs to the futures market. But even this has been hampered by institutional factors like, a) restricted list of commodities, b) dearth of delivery and procurement centers, that too not in the vicinity of the FPCs, c) Tedious documentation involved in the process.

The working paper of Mr. Ashok Gulati (2019) further highlights the measures to link more FPCs (also farmers) to the futures market:

- a) FPCs need to deal in commodities which do not have any government intervention (crops procured by the government under MSP and other schemes).
- b) Identify production centers for these commodities and build delivery centers around them.
- c) Have certain transactions (at pre-harvesting, harvesting or post-harvesting stages) on such commodities in the initial phase to analyze risks involved.
- d) Trading agencies of government need to participate directly in the futures market (specifically E-NAM) to install trust among the producers.

Unless and until there are efficient and reliable market channels not established the FPCs will continue struggling in benefiting from the scale of economies through collective action.

To categorize FPC as 'agri-startups' and bring it under the ambit of Startup India scheme: FPCs should be extended benefits provided to private limited companies under the Startup India scheme. This should be carefully studied to not disturb the conceptual basis of formation of FPC. This will enable assistance needed by the FPCs in its incubation stage and regulatory compliances can be applied as the FPC matures in the longer run.

Tie up with agri-tech startups for availing the benefits of technology to help farmers in the agricultural process: There are numerous agri-tech startups in the Indian market providing solutions to benefit farmers and simplify the agricultural process. These startups have made use of technology and placed themselves on different stages of the value

chain. There is massive market scope for these startups but being new entrants their outreach has still been restricted. In order to maximize and disseminate the benefits to all there is dire need to bridge the gap between them. The policymakers need to help the FPCs in mitigating the compliance issues involved in partnering with such players and consult the agri-tech startups for designing policies and programs.

6.2 FPCs Need to Build Capabilities Step by Step, Learning from Many Coaches

The FPC should function towards reaping maximum benefit of collectivization to the organization and its member. It needs to link the producers with the organization by making them understand the benefits of collective action. For this it needs to build a robust leadership base and have strong linkages with its core actors (board members, members/shareholders and the FIGs).

Steps for formation of FPOs: The FPC should start with a few set of board members to benefit from the collective action. This needs a perquisite condition of a small membership base (100 members) and geographical outreach (4-5 villages). This should be assigned with specific tasks to be executed at regular intervals. In this manner the FIGs/VLIs can perform business activities at the village level whereas the FPC can focus on developing the capital requirement and capacity needs.

For going ahead with a larger membership base, there would be more bargaining power, financial, management, capacity building needs required by the FPC. Without this the maximum benefits of collective action will not be attained or will be restricted to an individual or individuals with further common interest. An incremental approach for the formation of collectives is best suited to develop an ecosystem which can sustain efficiently. It allows learning from its experiences, assures benefits and then building trust to scale it. This can be used for the defunct and newly formed FPCs.

Composition and appointment of board members:

- a) For a FPC with smaller membership base and leadership team, the appointment of board members should not be focused on composition. Rather the presence of proactive, capable

(most important factor) and progressive farmer is required to understand the aspects of the FPC model.

- b) The composition of the board members should be more diversified in case of large membership base. Otherwise there are probable chances of socio-political and economical conflicts to arise which will hamper the idea of collective action and interest.
- c) In the early formation stage (provided the member base is small) the selection of board members is more advisable not restricting to representation criteria. But with growth in membership base (or directors) this appointment should be done on a democratic election system to bring in more transparency and accountability. The representation criterion now needs to be more clear and consistent.
- d) There is need of a rotation policy at a regular period to give entry to new members and also keep a check on the performance. This is to be coupled with a tenure period the decision for termination or continuation will be given to the general body.
- e) The FPC needs to have strong linkages with the producer institutions and the members associated as they form the base of the FPC pyramid. The representatives from these collectives need to have stronger presence and position at the board level.



Role of Resource Institutions: The RIs should consider taking a step-step approach in helping the FPC form and indulge into diversified business activities. Its role should change depending on the life-cycle stage the FPC is in. The needs and constraints pertaining to the FPC depend on this.

The RI should be instrumental in meeting the institutional, business and capacity needs of the FPC. It should start with appointment of the efficient board members and representation of shareholders should be maintained. With the success of women SHG movement, the RIs should also give emphasis to female managerial capacity and appointment of a larger section of females on board. It should learn from the experiences of Samruddhi Mahila Crop PCL (Rajasthan) and Ram Rahim PCL (Madhya Pradesh) both of which are women comprised and led enterprises. Both of these are doing relatively better functionalities in attaining income outcomes.

The role of RI can be structured, not limited to, in the following sequential manner (list can be further broadened). RI should select relevant training and capacity building needs contextual to the FPC.

- Mobilisation and formation:

- ❖ The RI needs to identify and study the catchment area. It should conduct focused group meetings along with the producers to make them understand the benefits and challenges of collective action. And primarily it should work on a small membership base.
- ❖ It should move forward with understanding of basic concepts of FPC model.
- ❖ It should form the organizational structure with strong linkages maintained between the primary actors.
- ❖ It should demarcate and define the roles and responsibilities of the board members and management (if any). It should clearly define the incentives and disincentive aligned with the individual performance in the collective interest.
- ❖ Involve representation of SMHF and women in the board members.
- ❖ To design a rotation or removal policy of any board members in case of poor performance. This can be channeled through voting rights.

- Management of the FPCs:
 - ❖ Introduction of CEO/HR/Staff in the FPC operations
 - ❖ Capacity building of the CEO and staff members.
 - ❖ Aligning the roles and responsibility of the management along with the FPC operations
 - ❖ Assessing the financial capability of the FPC.
- Business plan of the FPC:
 - ❖ The RI should identify the potential business activities that can be carried out under the present conditions.
 - ❖ It should list down the broader components of the business plan
 - ❖ Identify various viable solutions or models to execute the proposed activities. And map directors for carrying out these tasks in dedicated sub-committees which will be supervised by the chairperson and the RI.
 - ❖ For broader exposure and learning it should organize exposure visits or knowledge transfer with other better performing FPCs.
 - ❖ It should integrate the identified role and functions of the FIGs/VLIs into the mainstream activities of the FPC.
- Marketing and Networking:
 - ❖ The RI needs to assess the market structure and reforms. And convey the needs and demands of the market to the members and primarily to the leadership team. This is an on-going work which needs to be facilitated by the RI in the short, medium and long run.
 - ❖ Train the FPC with risk-management ability.
 - ❖ Enhance networking and stakeholder engagement.
 - ❖ Establish market linkages with large organized suppliers and buyers.
 - ❖ After reaching the stage of agri-input trading, the FPC should proceed with marketing of its aggregated produce along with value addition services to fetch better outcomes

It is the origins of the FPCs in the Companies Act which gives it a credibility in certain crucial matters, which will be lost if there is a separate legislative framework for it (as being proposed by many).

As majority of the FPCs registered in India are formed by resource institution which are not business entities, they have failed to facilitate the members about the significance of their voting rights. Instead of using the voting rights for assessment of the FPC and have an ownership in the company, in practice they had no values attached. This is the path leading to the failure and shortfalls of the traditional cooperatives. If involved the role of RI becomes more important in sustaining the FPC.

Support for Human Resource: Government needs to constantly support RIs to develop human resource management and facilitate the FPCs in decision making. The UP state government should take example from DPIIP project of Madhya Pradesh and firstly should restart the program and increase the capital support given. Under this one of the key components is of the capability and efficiency of the professional support given to the FPC.

The following lists of points have been illustrated by Mr. Aman Khanna in his in-detailed work of FPO study in Maharashtra (Khanna, 2018), as the skills required by the professional management:

- Business development : Identifying, pursuing, negotiating and closing transactions with customers
- Exposure and business intelligence: Networks and linkages with potential and emerging markets.
- Financial and technical support activities like: Accounting, Documentation and financial management
- Operations: Managing physical operations (handling, storage, collection, aggregation etc), managing service providers (logistics, labour etc.) and customer service.

Further these are just a consolidated list of basic skills required apart from skills of production. These can be also developed in a human resource with thorough training and education. In such cases one of the additions to the study would be that, the CEO appointed can be from the village area itself. There are advantages of like mutual understanding, coordination, and availability of the resource. The capability of such resources can be directed through government agencies or through resource institutions.

Impact assessment study: The centre needs to conduct impact assessment of “Agricultural Marketing Infrastructure’, sub scheme of ‘Integrated Scheme for Agricultural Marketing’ (ISAM) to ensure

that the listed agriculture marketing infrastructure is facilitated to the FPCs. The centre can strengthen this scheme to ensure marketing and storage facilities provided to the FPCs (and the producers) right at their doorstep.

Setting up of national and state level federation: The FPC society needs a body (in line with PHD, SIAM, FICCI) which will represent their collective interest and advocate with government and organization on their behalf. The common set of problems faced by the FPCs; inefficiency in getting loans from banks, bureaucratic stiffness, and market access is uniform and need to be addressed under this umbrella organization.

Research should develop rating tool for FPCs: there is need of a rating tool which would reflect the governance, management, capacity development and sustainability business model of the FPCs. This would serve the dual purpose of performance assessment and credit-worthiness of the FPCs. Further a robust database should be prepared by the agricultural ministry (can be directed towards SFAC) for maintaining records of overall FPCs formed and registered in India. This will help in keeping a track on the FPCs in the functioning state.

6.3 Accessing Capital for FPCs

Support for FPCs should be closely customized to individual FPC needs arising from their unique characteristics as against “blanket” schemes. This will have targeted interventions and improve the overall efficiency. A very recent example would be of the Karnataka State government. The government has announced to provide dedicated capital support in infrastructural facilities of FPOs. It has listed down the sectoral investments of the above 90% capital support given. The support programs should have a bias towards provision of support for diversification of revenue streams, value addition and capacity to cater to organized large scale buyers. This is essential to move up in the value chain and attain enhanced outcomes.

Role of agencies like NABARD and SFAC:

- **Advocacy with Banks:** It is required by NABARD and SFAC to advocate on this and educate the bank with financing models to FPOs. This can be targeted at state level and district level

forums like State level Bankers Committee (SLBC) and District Consultative Committee (DCC)

- The regional rural banks (RRBs) can be used by NABARD to extend working capital finance and term loans to FPOs.
- Moratorium given by NABARD for its loan is 2-3 years: these needs to be extended to beyond 5-7 years.
- Amendments under the SFAC credit guarantee scheme: Only 43 cases have been registered from 2014-February 2019 (source: SFAC website) under this scheme which aims at extending big size credits to FPC to meet their capital needs. This is a paltry figure compared to the rising numbers of FPCs in the Indian context.
 - ❖ There is no clear rational of 500 members set as the eligibility criteria under the scheme. This is difficult and not viable for any FPC in its incubation stage to attain such member base.
 - ❖ On the other hand it is lending institution which has to approach the SFAC seeking guarantee cover over the FPCs. This further discredits the entire concept as the lending institutions have no interest in putting in so much of efforts and risks.
 - ❖ For high performing FPCs there is need of guarantee fund to cover the lending to FPCs beyond 1 crore. The SFAC Credit guarantee fund currently covers collateral free loans up to 1 crore.

The guidelines are quite rigid and out of the capability of the FPOs. SFAC should make the process more flexible and push more FPCs and lending institutions to optimally utilize the scheme.

- The SFAC venture Capital Assistance Scheme should amend the mandatory criteria of FPCs having term loan (long term) sanctioned by banks. Such rigid criteria cannot be fulfilled by FPCs as they have been regularly suffering from non-availability of loans from banks and other lending institutions.

Role of government:

- Centre need to design packages for giving term capital and working capital (dedicated for each sector) to FPCs for at least 3-5 years in the incubation stage. Madhya Pradesh government

under the DPIIP project had provided dedicated capital support for raising authorized capital and provides working capital. Also there is need of different financing models needs to be adapted at incubation, growth and mature stages of FPO.

- Research and development fund- There is need of a dedicated research and development fund which can help in developing a rating tool based on the lines of SHGs. The rating can access the governance, management, accountability and sustainability of the FPC. This can be also used for credit worthiness of the FPCs and help them in availing larger loans.
- Amendments in the memorandum of association:
 - ❖ The FPCs need to apply again for revising their authorized capital. This involves further time and compliance issues and acts as hurdle for FPCs who are willing to expand their authorized base (and shareholder base). This should be amended to fasten up processes.
 - ❖ As per the MoA the farmers who have businesses in conflict with the activities of FPC should not be disbarred from being the FPC member. In fact such players should be used to develop more linkages and help FPC in establishing business activities.
- Extending benefits from the negotiable warehouse receipts:
 - ❖ State government should curb the compliance issues for WDRA registration by taking it under their respective warehouse licensing laws.
 - ❖ Warehouses constructed through government assistance and other agencies facilitation must be directly taken under the ambit of WDRA. This will extend market related services to SMHF.
 - ❖ WDRA registered warehouses should be given the status of mandis for warehouse-based sales on E-NAM platform.
 - ❖ The centre can appoint Warehousing Development and Regulatory Authority (WDRA) to issue NWRs to cluster of FPC applying for a warehouse/cold chain facilities and WDRA should act as the collateral.
 - ❖ Warehouses present at grassroots-level collectives primarily owned by Primary Agricultural

Cooperative Societies (PACs) should be also allowed to issue NWR receipts.

- Support for financial services: For FPCs to venture out in extending financial services there is need of interest subvention scheme for the FPOs in their incubation stage. This can be targeted with setup of a dedicated agri-business bank in India. Currently none of the banks in India specialize in lending in agriculture sector.
- There is need of change in legislation to allow collateral on collective land of FPCs while retaining the land shares and entitlements. This will benefit the FPCs in generating loans from the banks required for their functioning. One more way of dealing this would be that the Ministry of Corporate affairs should provide some government land on long-term lease to the FPCs. This can be used for opening up of input centers/warehouses and also used as collateral.
- Extend benefits and exemptions offered to cooperatives to FPOs also. And there is absence of any tailor made loan products for FPOs as it was done in the case of SHG-Bank Linkage Programme.
- Mandatory CSR obligations to invest in growth of FPOs: Under the Companies Act 2013 currently there is provision of non-voting equity rights sanctioned for the FPC ecosystem. The SFAC equity grant scheme is one example of it. The SFAC can grant equity to the FPC but cannot be member of the FPC. Under such circumstances without any legal obligations no private equity will have interests in supporting the FPC as they will have no voting rights and presence in the board of members. Therefore the Ministry of Corporate Affairs (MCA) needs to bring provisions of CSR obligations (private equity) under the Companies Act 2013 and thus create investment channels for the FPCs.

7 Conclusion

For the farmers the FPC is not more than a middle-man which provides timely delivery of affordable input material. The leadership has not worked towards procurement of farm produce as government provides MSP on wheat and Paddy. Their ability to establish market linkages could take them to another stage of value chain.

The present study has tried to identify the needs and challenges faced during the formation and functioning of the FPCs handled by BASIX. The findings had its own characteristics as each FPC seem to be contextual in nature. The challenges largely lie in the area of, a) mobilization and formation of the FPCs, b) leadership capabilities and internal governance, c) scarcity of capital, d) restricted access to market, and e) lack of knowledge and information. The challenges are somewhat abstract in nature as it can be applied in almost every context. But the fragmentation of the major headings leads to different findings and analysis. The study has proposed the significance of capital requirement and capacity development as the instrumental tool in building sustainable business models for the FPCs. This can be delivered with the active participation and integral relationships established among the different actors in the FPC ecosystem.

The study proposes that there are various answers to the question of prosperity through collectivization. It suggests that there is possibility of empowerment and prosperity of smallholder producers through the collective action of FPC. But this process is incremental and requires constant and consistent support. There are various questions which need to be addressed with the collectivization action. What sort of business service model is viable? What should be the approach in building the FPC? What are the changing roles and responsibilities of the actor's part of the FPC ecosystem?

A suitable answer to the above (not limited to) questions is developing of sustainable ecosystem for the FPC. The value chain built with the FPC intervention seems to benefit its members in an organic manner. This is the distinct advantage of the collective action of the FPCs. This can be developed by external agency and environmental variables or can be developed within the FPC itself. For these there is need of a matrix of different sets of optimal solutions with roles specified of each and every stakeholder. The type and strength of inter-relations with the different actors in developing the capital

requirements and capability will decide the nature of the FPC ecosystem.

It should not matter whether the FPC or enterprise is self-reliant or working on a stand along basis as this has its own implications. More emphasis needs to be given on the needed assistance in the incubation and growing stage. Various studies have argued that FPCs in their incubation stage normally need at least eight to ten years of support and facilitation from the resource institutions to become self-reliant and self-sustainable.

FPCs are farmers driven initiative to cater the need and demand of small and marginal farmers whose income is decreasing over years due to various reasons like decrease in productivity, lack of information about market, climate change and reliance on single crop. The very idea of building an institution based in villages is to increase growth potential of rural economy. Rural economy is still driven by agriculture in which 85% of all farmers are small and marginal farmers whose land holding is not more than 5 acre. With this small land holding, farmers are not able to produce large quantity of produce that will generate enough profit to survive in market based economy. After 40 years of Green revolution has shown its effect on agriculture. To gain higher results, farmers are increasingly relying on fertilizers and pesticides thus increasing cost of production. Even after producing good quantity of farm produce, small and marginal farmers do not have access to market or simply do not understand the dynamics of market based economy.

Scale and margins seem to be mutually exclusive categories for the FPOs and profitability seems to be an unachievable dream. What FPCs need is patient capital to support basic infrastructure including warehouses, early stage staffing and capacity building.

Works Cited

- Access Development Services. (2016). Financing For Farmer Producer Organisation (FPOs).
- (2018). Agriculture Census 2015-16. Agriculture, Co-operation and Farmers Welfare: Ministry of Agriculture and Farmers Welfare.
- Aoki, M. (2006). Mechanisms of Endogenous Institutional changes. Stanford Institute for Economics Policy Research. Stanford University.
- Bera, S. (2018, May 30). Why are Indian Farmers taking to horticulture? New Delhi: Livemint.
- Bijman, J. (2016). The changing nature of farmer collective action: introduction to the book. In J. Bijman, J. Schuurman, & R. Muradian, Cooperatives, Economic Democratization and Rural Development (pp. 1-22). Edward Elgar.
- Bruycker, I. D., Berkhout, J., & Hanegraff, M. (2017). The paradox of collective action: Linking interest aggregation and interest articulation in EU Legislative Lobbying. Fifteenth Biennial EUSA Conference, (pp. 1-29).
- Chatterjee, T., Raghunathan, R., & Gulati, A. (2019). Linking Farmers to Futures Market in India. ICRIER.
- Committee on Doubling Farmers Income. (2018). Report of the Committee on Doubling Farmers' Income- Comprehensive Policy Recommendations Volume 14. New Delhi: Ministry of Agriculture & Farmers' Welfare.
- Das, B., Palai, N. K., & Das, K. (2006). Problems and Prospects of the cooperative movement in India under the globalization regime. XIV International Economic History Congress, Session 72. Helsinki.
- Desai, R. M., & Joshi, S. (2014). Can Producer Associations Improve Rural Livelihoods? Evidence from farm centres in India. *Journal of Development Studies*, 50(1), 64-80.
- Fischer, E., & Qaim, M. (2011). Smallholder Farmers and Collective Action: What Determines the intensity of participation. Seventh Annual Conference of the Verein für Socialpolitik, (pp. 1-30). Berlin.
- GIZ. (2019). Capacity building of Board of directors of Farmers Producers Organisations (FPOs). Trainers Guide.
- IRLT. (2016). Farmer Producers Organisations in India. Study report, Institute of Livelihood Research and Training.
- Khanna, A. (2018). Improving Small Farmers Access to Market in Bihar and Maharashtra: Takeaways and lessons learnt. Asian Development Bank.
- Kirui, O. K., & Njiraini, G. W. (2013). Impact of Collective Action on the

smallholder agricultural commercialization and income: Experiences from Kenya. 4th Conference of AAAE, (pp. 1-12). Hammamet, Tunisia.

Mahajan, V. (2014). Farmers Producer Companies: Need for Capital and Capability to capture the Value Added. State of India's Livelihoods (SOIL) report.

Ministry of Agriculture. (2013). Policy and Process Guidelines for Farmer Producer Organisations. Department of Agriculture and Cooperation, Ministry of Agriculture.

Mukherjee, S. (2019, July 29). The rising agricultural input costs, poor realisation of output prices and information gap has resulted in poor income outcomes for the smallholder farmers.

NABARD. (2018). NABARD All India Rural Financial Inclusion Survey 2016-17. Mumbai: National Bank for Agriculture and Rural Development, Department of Economic Analysis & Research.

Olson, M. (1971). *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, Massachusetts: Harvard University Press.

Roy, D., & Thorat, A. (2008). Success In High Value Horticultural Export Markets For The Small Farmers: The Case Of Mahagrapes In India. *World Development* , 36 (10), 1874-1890.

Salisbury, R. H. (1969). An exchange theory of interest groups. *Midwest Journal of Political Science* , 13 (1), 1-32.

Sharma, P. (2007). India's Agrarian Crisis and Smallholder Producers Participation in New Farm Supply Chain Initiatives: A case study of contract farming. Case study.

Singh, S. (2008). Producer companies as new generation cooperatives. EMNET.

Singh, S., & Singh, T. (2013). *Producer Companies in India: A study of organisation and performance*. CMA Publication , 246, 126.

Ton, G. (2008). Challenges for smallholder market access: a review of literature on institutional arrangements in collective marketing. *Stewart Postharvest Review* , 5 (1).

Trebbin, A., & Hassler, M. (2012). Farmers' producer companies in India: a new concept for collective action. *Environment and Planning A* , 44, 411-427.

Appendix A

QUESTIONNAIRE FOR FARMER PRODUCER COMPANIES in UTTAR PRADESH



RAJIV GANDHI
INSTITUTE FOR CONTEMPORARY STUDIES

Rajiv Gandhi Institute for Contemporary Studies

Jawahar Bhawan, Dr Rajendra Prasad Road,
New Delhi 110 001 India

T 91 11 2331 2456, 2375 5117 / 118 | E info@rgics.org W www.rgics.org

Please visit us at:

www.rgics.org

