



Research Article

FORMATION OF FARMER PRODUCER ORGANISATIONS AND ITS IMPACT ON THE DEVELOPMENT OF SUSTAINABLE CROP PRODUCTION IN KARNATAKA

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Abstract- India is an agriculture based country and majority of the farmers in the country are small and marginal farmers. These farmers face the problems of seeds, fertilizers, pesticides and all inputs. Major problem is marketing their produce, an increase of intermediaries. In order to overcome this problem the study is conducted to know the problems and benefits to the farmers by forming the FPOs. The Study was conducted on the basis of both qualitative and quantitative methods, the results found were Organic farming is not practiced in the locality, no regular and authentic source of information to the farmers regarding market prices. The farmers generally rely on their own past experiences and information provided by fellow farmers. The benefits after forming as FPO's were per hectare production improved by 10 per cent by the end of the study. Minimum 20 per cent rise in net income of the FPO farmers.

Keywords- Agricultural, Sustainability, Karnataka, Farmers, Organization, Production

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Introduction

Major share of Indian Agriculture is covered by small and marginal farmer. 85 per cent of agriculture holdings are less than two hectares. In order to develop the situation of rural areas Farmer producing organizations plays a crucial role. The world has been seeking better ways of growing the agricultural sector, and in the process realized that farmer organizations could play a central role in driving the intended growth [1].

There is lot of problems in supply of agricultural inputs under regulated markets. Seeds, fertilizers, pesticides, insecticides, fungicides, micronutrients, liquid bio-fertilizers are being regulated by the States. Although, there is lot of margins by aggregation of these inputs which can cut the agriculture production cost. Marketing is still a challenge for the farmers. There are three main reasons: one is low quantum of market surplus by the individual small and marginal farmers, second one is N number of intermediates

Who are holders also and third one is lack of price discovery of agriculture produces. All these problems can be solved up to certain extent by the farmer producer's organizations. By considering all these there is a special project carried out in Karnataka [2,3].

Karnataka Special Project consists of the process of promoting Farmer Producer Organizations (FPOs) covering fruits and vegetable growers in different districts of the state. Small Farmers' Agribusiness Consortium (SFAC), in conformity with the Department of Horticulture, Karnataka has allocated responsibility of formation of three Farmer Producer Organizations (FPOs), in the state. Each of the FPO will be covering 1000 flowers, fruits and vegetable growers.

This project has covered a variety of factors to identify the potential developmental interventions and to establish the base figures that can be used to measure the change in situation of the farming and farmers post the project intervention.

The main requirements of the projects for the conduction this project are as follows:-

- There is need to empower the farmers by aggregation.
- A well managed producers association is very useful in a competitive trade environment to protect the farmers from exploitative private trade practices.
- The farmers will be benefited from selling their produce together through economies of scale in the use of transport and other services. The group action will strengthen bargaining power of the farmers.
- The well-functioning supply chain will also reduce the cost of marketing by linking the farmers more closely to consumers.
- In addition to selling of the horticultural produce in APMCs, integration of farmers into the retail chain, processors and exporters through contractual arrangement will fetch higher and assured prices to the farmers.
- The FPO will be guided to meet changing consumer preferences for quantity, quality, variety and food safety.
- The farmers of the proposed clusters are not able to take advantage of price hike due to price risk and lack of information services like price forecast and market opportunities. Managing risks due to price fluctuations in horticulture produce will be minimized through market intelligence/ price advisories/ price forecast support.
- The concept of online marketing, very effective for mapping targeted produce and targeted consumers, will also be encouraged. There is considerable scope for high value realization for horticultural produce from Karnataka through virtual market development.

Objectives

- Mobilizing farmers into groups of between 15- 20 members at the village level (called Farmer Interest Groups or FIGs) and building up their associations to an appropriate federating point, i.e. form Farmer Producer Organizations (FPOs) so as to plan and implement product specific

integrated cluster development program.

- Strengthening the farmers' capacity through training on best practices for enhanced crop productivity in sustainable manner.
- Ensuring access to and usage of quality inputs and services for intensive and sustainable crop production and enhancing the cluster competitiveness.
- Facilitating access of the producer groups to fair and remunerative markets.

Methodology

The Study was conducted on the basis of both qualitative and quantitative methods. Information was also collected from various secondary sources; such as, Department of Horticulture- Karnataka, online data base of APMC etc. The following methods are used for collecting primary data [4,5].

Survey Method

Following stages were followed during the primary survey:

Stage 1

To conduct the primary survey, household level survey questionnaire were developed. The questionnaire covered information about horticulture specific infrastructure, input, extension service, produce marketing and credit needs and availability. Questionnaire for Focus Group Discussion (FGD) were also developed on similar lines. Both open and close ended questions were part of questionnaires developed for the household survey, FGD and in-depth interview.

Table-1 Number of farmers per FPO in different district

Sr. No.	District	No. of FPO Planned	No. of farmers planned per FPO
1	Bidar	1	1000
2	Koppal	1	1000
3	Raichur	1	1000
4	Bijapur	2	2000
5	Bagalkote	1	1000
	Total	6	6000

Stage 2

The stage two involved selection of Gram Panchayat (villages) for collection of primary information. The villages having high production of flower, fruits and vegetables the survey team consulted the block level officials from Horticulture Department, Karnataka. 4 villages from identified village clusters were randomly selected, for conducting the primary survey.

Stage 3

In the third stage, the survey team started visiting the GP and initiated discussion with Sarpanch explaining them about the purpose of the survey as well as to seek their support to identify farming households in their respective GP. In the following days the team conducted FGD and interviewed the farming households to collect primary information.

Stage 4

The data analysis developed an electronic database management system and entered the information gathered through the field survey formats, in the database. Post cleaning of the data, the team analyzed the information and availed it for incorporation in a Detailed Project Report.

Household survey

Survey is done with farming households at block level, via. Stratified random sampling using structured questionnaire. The APMC officials were consulted to understand prevailing marketing situation of flower, fruits and vegetables produced in the locality Household questionnaires were filled by interviewing 25 farmers at random in every identified village; i.e. total 100 Household Questionnaires (containing both quantitative and qualitative questions) were filled as part of the primary study.

Focus Groups

Survey is also conducted from Focus Group Discussion (FGD) in all the Gram Panchayat where the household surveys were conducted. All together 4 FGDs were conducted, to cross check/validate the response from the household survey.

In-depth interviews

In-depth interviews were conducted with district level APMC officials, in the entire district. The APMC officials were consulted to understand prevailing marketing situation of flower, fruits and vegetables produced in the locality.

Findings and Analysis

Objective 1:- Mobilizing farmers into groups of between 15- 20 members at the village level (called Farmer Interest Groups or FIGs) and building up their associations to an appropriate federating point i.e. form Farmer Producer Organizations (FPOs) so as to plan and implement product specific integrated cluster development program.

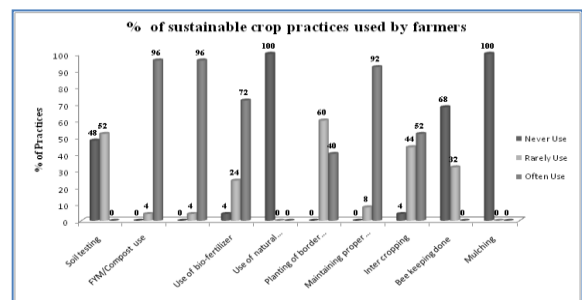
Table-2 Steps have been taken for the formation of FPOs

1	Development of survey questionnaire for household level
2	Questionnaire for Focus Group Discussion (FGD)
3	Development of in-depth interviews for APMCs.
4	Training to the survey team to make FPOs
5	Selection of Gram Panchayat for primary data collection
6	Visiting the Gram Panchayat by the team
7	Analyzing the information and incorporation in the Detailed Project Report

Objective 2:- Strengthening the farmers' capacity through training on best practices for enhanced crop productivity in sustainable manner.

Strengthening Framers' Capacity

There are various factors, which can be added to the sustainable crop production. In Karnataka, people are aware about the FYM, Uses of micronutrients, use of bio-fertilizers, maintaining proper plant distance and so on. But some where they are not having any knowledge about soil testing, mulching, use of natural pesticides, bee keeping etc.



Source: - Primary data

Graph-1 Different sustainable farm practices used by farmers

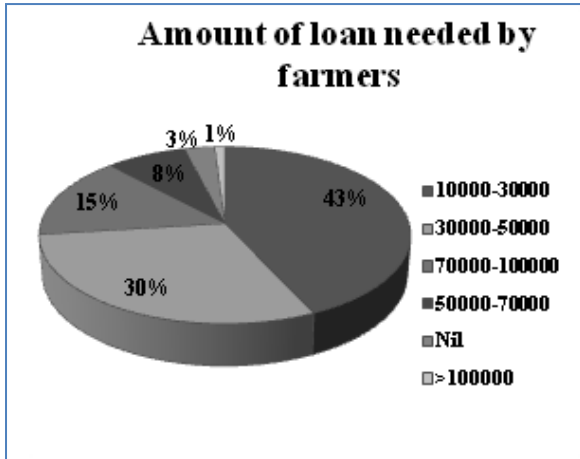
Table-3 Results of Sustainable crop practices adopted by farmers

Practice	Results (Badami block)
Soil testing status	Rare practice; <30 % of farmers have gone for testing
FYM/compost use status	> 85 % of the respondents use FYM
Micronutrients use status	The farmers are aware and use frequently
Bio fertilizer use status	Practiced by around 60 % respondents
Use of Natural pesticides like neem oil	None of the respondents use natural pesticides
Planting of border crop	Practiced by 40 % of the respondents
Maintaining proper plant spacing	Maintained by 80 % of the respondents
Inter cropping adoption rate	Followed by approx. 45% of farmers in the locality
Bee keeping done	Not practiced by the farmers
Mulching in practice	Done by a few farmers

- **Objective 3:-** Ensuring access to and usage of quality inputs and services for intensive and sustainable crop production and enhancing the cluster competitiveness.

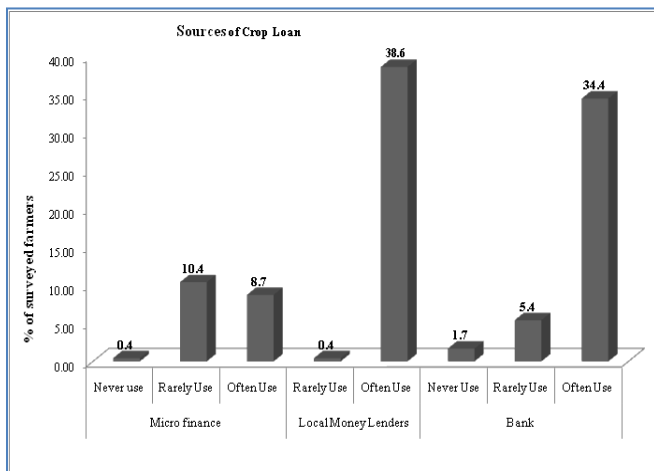
Primary data of 100 farmers is taken and analysis on the same has been done to create the required output from the same

88 per cent of the people have replied that they have proper availability of seeds and pesticides on credit system. Only 12 per cent are facing the problem of unavailability.



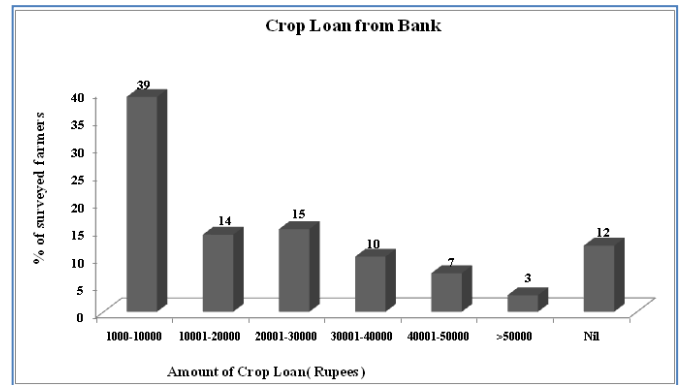
From this graph we can see that about 43 per cent loan have been taken in very small amount i.e. 10,000-30,000. 30 per cent of the farmers have taken loan of about 30,000-50,000. As depicted in the graph only 1 per cent of the farmers have taken loan more than 1 lakh

Graph-2 Loan needed by the farmers
Source: -Primary Data



Graph-3 Different sources of crop loan
Source:-Primary data

The major source of loan for the farmers is local money lenders and bank and sometimes micro finance. Approx. 38.6 per cent of the farmers have been facilitated by local money lenders for loan followed by 34.4 per cent which is by Bank itself. 89 per cent of the farmers replied that they are in the habit of doing regular savings. Also 67 per cent of the farmers replied that they have their bank/Post office account.



Source:-Primary data
Graph-4 Crop loan taken from Bank

These are amount of loan which have been given to the farmers by the bank ranging from 0 to >50,000. 39 per cent of farmers replied that they have taken loan upto 10,000 followed by 15 per cent which is 20,000-30,000.

100% of the farmers do not have any Kisan Credit Card

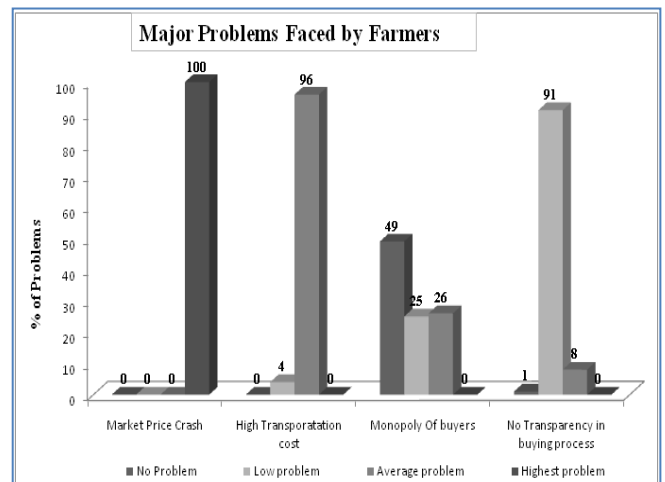
Enhancement of Cluster Development

- Requirement of seasonal agri-inputs like seeds, fertilizers, pesticides etc
- Loan from Micro-finance institutions, Banks & Local Money Lenders
- Government should provide facilities for these inputs so that farmers can invest this money into savings and can purchase bigger purchase like farm machineries
- Clusters can be supported by Government to fulfill the needs for these small inputs

Objective 4:-Facilitating access of the producer groups to fair and remunerative markets

Primary data of 100 farmers is taken and analysis on the same has been done to create the required output from the same. Experimental data clears that only 10% of the farmers are practicing Organic Farming.

Also 81% of the farmers are rarely using APMC for the selling of the agricultural produce while 93% of the farmers are taking help from the local traders to sell their agricultural produce.



Source:-Primary Data
Graph-5 Problems Faced by Farmers

It is clear from the above graph that the major problems of farmers are market price crash, followed by high transportation cost and the monopoly of buyers.

They have been least affected by no transparency in buying process.

Key Outcomes

- Per hectare production improved by 10 per cent by the end of the project period
- Minimum 20 per cent rise in net income of the FPO farmers

Conclusions

- Drought is a common problem
- Organic farming is not practiced in the locality
- No regular and authentic source of information to the farmers regarding market prices
- The farmers generally rely on their own past experiences and information provided by fellow farmers
- Only 30% of the farmers own any farm animal
- No FPOs and Women SHGs in the locality
- Lack of awareness about the government schemes
- Monopoly of buyers in the market place is sometimes a reason of distress or forced sale

Acknowledgement

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Ethical approval: This article does not contain any studies animals performed by any of the authors.

Abbreviations: FPO = Farmer Producer Organization
SFAC = Small Farmers' Agribusiness Consortium
APMC = Agriculture Produce Marketing Committee
FIG = Farmer Interest Groups
FGD = Focus Group Discussion
GP = Gram Panchayat
FYM = Farm Yield Management

Conflict of Interest: None declared

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