THE IMPORTANCE OF AGRICULTURAL PLANNING FOR FARMERS

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ABSTRACT

Agriculture sector is the most employed sector in Indian economy. Besides the hardship faced most farmers continue to work in this field. There are a large number of problem that are addressed by the farmers. This paper mainly focuses on them, how the farmers can increase their productivity and income by executing a proper work plan. The role of Farmer Producer Organisations (FPOs) are very significant in this. The FPOs can provide farmers with high quality yield and higher income. This paper mainly discusses how the farmers can be prepared for producing goods largely particularly during festive seasons. We conducted a literature based survey covering different parts in Kerala state of India. This paper mainly focuses on to increasing the income of farmers through FPOs. It also provides suggestions about how the challenges can be addressed.

KEYWORDS: *FPO, Value addition*

1. INTRODUCTION

The agriculture sector employs almost half of the workforce in the country. Many more are involved directly or indirectly. Beside this fact most of the farmers are in large debt. Some of the reasons are changing climate, low quality of seeds, lack of machineries, number of intermediaries and lack of agricultural planning .(Deshpande Tanvi,2017). However, if the increasing number of agricultural suicides among small and marginal farmers (National Crime Records Bureau, 2011) is an indication, these farmers are struggling to survive. While indebtedness is often cited as the immediate reason for distress (Reserve Bank of India, 2006; Satish, 2007), deeper issues are related to vulnerability to risks in agriculture production. To solve this problem FPO's can involve in the process for enhancing the living conditions of farmers. This paper mainly discusses about the need of agricultural planning and how it helps the farmers.

Crops Grown in Kerala

CEREALS AND PULSES	PULSES	TUBERS
Maize Ragi Sorghum Rice	Black Gram Cowpea French bean Green gram Green Pea Horse Gram Red Gram Soybean	Amorphophallus Colocasia Greater Yam Lesser yam White Yam Sweet potato Tapioca
Spices & Condiments	**Fruits**	**Vegetables**
Turmeric Gamboge Tamarind Pepper Cardamom Cinnamon Clove Vanilla Ginger Mango-Ginger Nutmeg	Banana Guava Indian Gooseberry Jack Fruit Mandarin Orange Mango Papaya Pineapple Sappota West Indian Cherry	Amaranth Okra Coleus Bitter Gourd Snake Gourd Cucumber Water Melon Bottle Gourd Pumpkin Ash Gourd Brinjal Chilli Tomato Cabbage Cauli Flower Carrot Beet Root Radish Potato Garlic Minor Vegetables
Cash Crops	**Oil Seeds**	**Beverages & Stimulants**
Cashew Cotton Rubber Sugarcane	Coconut Groundnut Oil Palm Sesame	Arecanut Betel Vine Cocoa Coffee Tea Tobacco

(Kissan Kerala, 2018)

Identifying Rainfall Pattern

Sl.no	Districts	Actual rainfall(mm)	Normal rainfall(mm)	Percentage departure (%)	
1	Thiruvanthapuram	143.9	136.2	6	Normal
2	Kollam	197.6	191.7	3	Normal
3	Pathanamthitta	463.8	185.9	149	Large excess
4	Alappuzha	235	183.7	28	Excess
5	Kottayam	276.4	175.6	57	Excess
6	Idukki	223.6	191.8	17	Excess
7	Ernakulam	280.9	165.8	69	Large excess
8	Thrissur	204.5	165.8	23	Excess
9	Palakkad	164.4	142.4	15	Normal
10	Kozhikode	220.8	165	34	Excess
11	Malappuram	183.1	145.9	25	Excess
12	Wayanad	219.7	115.4	90	Large excess
13	Kannur	236.8	131.8	80	Large excess
14	Kasargode	135.7	143.3	-5	Normal

Table 1: Season's rainfall, Meteorological centre, Trivandrum (1st October 2018 to 17th October 2018)

The collection of rainfall data is very useful for farmers it will give them an idea about planning for future. These data's are available in the government websites. Rainfall data is very essential for arranging irrigation facility for crops

Identifying Suitable Crops for Cultivation

Farmers should have a proper idea about the crop they are choosing for cultivation during a particular season. This should include the details such as where should they get quality seeds, when should they buy the seeds, what was the demand for this product last year, amount of fertilizer needed, how and when should they apply fertilizers, number of labour hours required etc. Proper planning reduces the risk factor, this is because if farmer gets an idea that this crop will not give him sufficient profit he can withdraw it. It also enhances the confidence, because if a farmer has a proper plan he can plan each activities accordingly. If he has a proper business plan he can approach a bank for agricultural loans. Also it is very important to note that if a farmer has a plan to sell his/her products during a festive season he must include a proper plan. Planning can be done for long term as well as short term. Overall the agricultural planning has a significant role in the life of farmer

2. LITERATURE REVIEW
Farmer's dilemma

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                          ┌─────────────────┐
                          │  When to sell   │
                          └─────────────────┘
        ┌──────────────────────────┼──────────────────────────┐
        ▼                          ▼                          ▼
┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│    Sell now     │      │   Sell later    │      │ Hedges on Future│
└─────────────────┘      └─────────────────┘      └─────────────────┘
        │                          │                          │
        ▼                          ▼                          ▼
┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│ • Profit margin │      │ • No crop in    │      │ • Benefit: Crop │
│   locked        │      │   hand          │      │   in hand       │
│ • Only basic    │      │ • No buyer at   │      │ • Price risk    │
│   risk          │      │   this time     │      │                 │
└─────────────────┘      └─────────────────┘      └─────────────────┘
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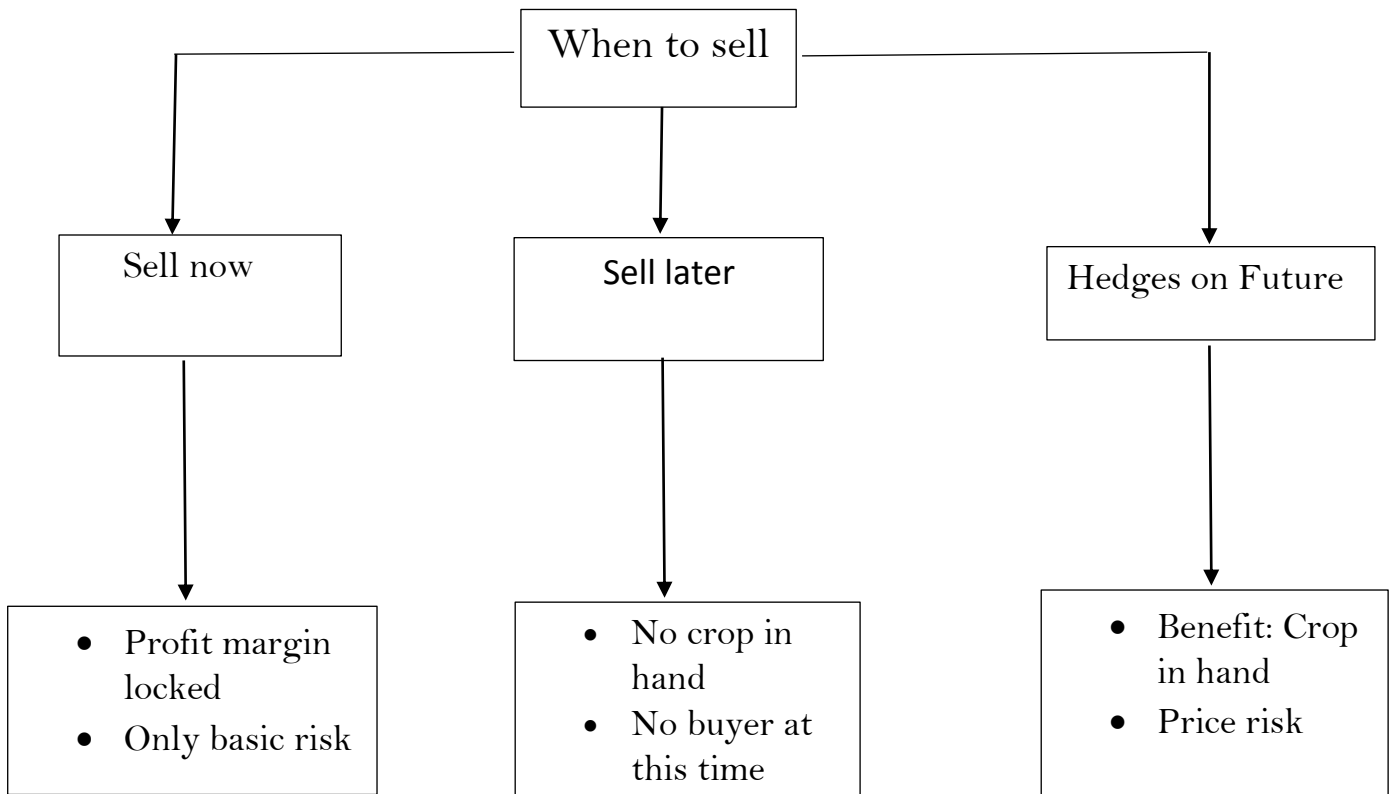
This chart shows typical farmer's dilemma in the current scenario. Mainly 3 type of issues are faced by them first one is that whenever they try to sell the products at time they are not able to gain any financial benefits through it. The profit margins are being locked and they are facing several risk

Necessity of planning

A farmer can nearly double his income if he tries to achieve the target within the festival season. In Kerala main festivals are Onam, Christmas, and Vishu. Very large sales happens on this time. So, if

Introduction of FPOs

The FPO's involvement can be clearly visible because they can help farmers in many ways. FPO's can assist farmers by providing them with business Some steps can be introduced are providing famers with following facilities

1. Providing quality seeds
2. Arranging business loans
3. Providing labour equipment's
4. Providing fertilisers and pesticides

These are some of the ways in which farmers can assisted with above helps. Most of the farmers are not accessed with quality seeds as a result they

problems. The second one is the problem that occurs when the farmers try to sell their products later. In this case they may face issues such as less number of buyers. The hedges on future are they will be having crops In hand but they may not be able to maintain the price issues faced by them.

farmer has plan it before they can gain more profit. In such case the role of Farmer Producer Organisations are very high.

plan, work plan and also with financial help. So these issues can be solved and famers can earn more with the help of Farmer Producer Organisation.

5. Providing help during harvesting
6. Providing with Storage and warehouse facilities
7. Providing Transportation facilities
8. Providing Packing facilities

are not able to provide high quality yield products. This problem can be solved if FPO's directly involve in this. The next severe problem is the financial problem. This can be solved if FPO's can provide loans and other financial aids for them. Farmers need

help in various ways they need machineries, goods, fertilisers, pesticides etc. They can also provide

3. RESEARCH METHODOLOGY

The results and data presented in this paper were part a study conducted over the various conditions of farmers. As mentioned in the introduction chapter the main objective of the research was to explore the current issues of farmers on increasing their income, how to implement business plan, how to plan in way to overcome these issues. To achieve this quantitative based research

Sample Group

The data is obtained from members of an FPO having long beans cultivation during a program that was conducted by NABARD at BIRD, Lucknow. The data was collected directly by interaction between the authorities of FPO. The data collection

farmers with fertilisers, pesticides etc at lower rate.

was conducted. Quantitative based research focused on data collection from different FPO's all over India. The data was collected at BIRD, Lucknow a program which was conducted at National Bank For agriculture and Rural Development (NABARD) on interaction with several CEO's, managers and technical staffs of different FPO over India.

was conducted quantitatively. The format collected from this FPO can be introduced by other major FPO in implementing work plan as well as preparation of business plans.

Sl.no	Name of products	Time of cultivation	Time of harvesting
1	Brinjal	June and September	September and February
2	Chilly	June and September	September and February
3	Cauliflower	September	February
4	Cabbage	September	February
5	Tomato	June and September	September and February
6	Mango	January	May to July
7	Vermi compost	Throughout the year	Throughout the year
8	Agarbati	Throughout the year	Throughout the year
9	Mustard	September	January
10	Black gram	August	January
11	Green gram	August	January
12	Turmeric	May	February

The above table shows the list of products, the time at which they are cultivated and time of harvesting. The use of such a table is that the farmers can exactly identify which crop should they cultivate

4. RESULTS AND ANALYSIS

The data shown below was collected by interacting with different FPO's all over India and we have included crop plan for Long beans. It shows all the details from land preparation to harvesting are included here. The benefit of arranging such a plan is that the farmers can easily estimate what are the

during a particular season and start planning accordingly. It also help them to identify the market value, the last 5 years price can also be included so the farmers can identify the market trend.

expenses for each month. The data shown below are estimated for 1 hectare of area in Kerala. The cost may vary in different areas. The planning need for proper execution

Sl.no	Activities	Month	Man days	Amount(Rupees)
1	Land preparation	September	1	600
2	FYM	September	2	8000
3	Ploughing	September	1	2000
4	Lime application	September	1	1200
5	Forming ridges and barriers	October	1	6300
6	Seed	October	2	4000
7	Sowing	October/November	1	1000
8	Stacking	November	2	12000
9	Fertilizers	November	1	8000
10	Urea	December	1	700
11	Biochemical	December	1	2500
12	Weeding	December	3	2000
13	Harvesting	December	5	7500
14	Irrigation cost	October-December	3 months	5000

Analysis

Total Expenditure 64,265

Yield: 2000 kg/acre

Gross income from crop: 100000

Net income: 35,735

CBR=1:1.55

The above table explains the cost for cultivation of long beans. It includes all the details required from land preparation till harvesting is included. This is one of the successful methods followed by many FPO. Using this they can analyse whether they could get any benefit from this crop or not. It is very helpful for farmers and they can improve the overall confidence so that they can identify this much profit they will get after this season. At the end they can calculate total expenditure, approximate yield that they could acquire after the cultivation. They are also able to analyse the net income with the current price for the product. Hence they are getting a clear idea whether cultivation of this crop is good or not

5. CONCLUSIONS

Agriculture sector is one of the sector which contributes most to GDP of our country. A large number of people are employed in this sector. The problem is that the farmers are not able to produce the actual amount of profit instead they ends up with huge financial crisis. So, there must be proper planning which include all sort that is business plan and other sort of work plans that should be implemented before they start cultivation. This would help them in large way and earn better income. As a whole they can improve the living standards. The technique of involving work plan can be introduced for other crops hence they can improve the total productivity, better yield, more profit and less stress in the mind of farmers.

6. RECOMMENDATIONS

In this paper we have conducted a study only on a single crop i.e. Long beans. This method of technique can be used on all crops. Using this method farmers can actually identify the amount of money they need to invest during each month also can plan at what rate they needs to sell the crops to maintain a fair amount of profit in there hand. During present scenario there is no adequate planning conducted among the farmers in such a condition FPO's can come forward and help the farmers.

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