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THE ROLE OF VALUE ADDITION IN FARMER PRODUCER ORGANISATIONS: BENEFITS AND CHALLENGES

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ABSTRACT
Almost 60% of people in India are directly or indirectly involved in agriculture sector. The role of Farmer Producer Organisations (FPOs) are very significant in this. The FPOs provide farmers with high quality yield and higher income. This paper mainly discusses the value addition process, why it is important, its benefits and also the challenges faced by FPOs in agricultural value addition. We conducted an online survey covering 100 FPOs in Kerala state of India. This paper mainly focuses on to increasing the income of FPOs through value addition. It also provides suggestions about how the challenges can be addressed.
KEYWORDS: *FPO, Value addition*

1. INTRODUCTION

Agriculture is the primary source of livelihood for about 58 per cent of Indian population. Gross Value Added by agriculture, forestry and fishing is estimated at Rs 17.67 trillion (US$ 274.23 billion) in FY18. During 2017-18 crop year, food grain production is estimated at 279.51 million tons, as per third advance estimates while rice and wheat production in the country is estimated at 111.52 MT and 98.61 MT, respectively in the same period. Milk production was estimated at 165.4 million tons during FY17, while meat production was 7.4 million tons. India is expected to achieve the ambitious goal of doubling farm income by 2022. The agriculture sector in India is expected to generate better momentum in the next few years due to increased investments in agricultural infrastructure such as irrigation facilities, warehousing and cold storage. Furthermore, the growing use of genetically modified crops will likely improve the yield for Indian farmers. In recent years the role of FPO brought significance in the agriculture sector. Value addition is another important term i.e., gaining popularity nowadays. India is expected to be self-sufficient in pulses in the coming few years due to concerted efforts of scientists to get early-maturing varieties of pulses and the increase in minimum support price. The government of India targets to increase the average income of a farmer household at current prices to Rs 219,724 (US$ 3,420.21) by 2022-23 from Rs 96,703 (US$ 1,505.27) in 2015-16 (IBEF, 2018).

2. PRODUCER ORGANIZATIONS AND FPOS

A Producer Organization (PO) is a legal entity formed by primary producers, including farmers, milk producers, fishermen, weavers, rural artisans, craftsmen. A PO can be a producer company, a cooperative society or any other legal form which provides for sharing of profits/benefits among the

members. Farmer Producer Organization FPO is one type of PO where the members are farmers. Thus by collectivizing farmers into FPOs, farmer's dependency on intermediaries can be minimized and enable the farmers access to better markets. Several initiatives have been adopted by the government, top financial institutions such as National Bank for Agricultural and Rural Development (NABARD), private donor organizations, financial institutions and many other institutions to support and nurture the development of FPOs and facilitate their emergence as effective profit-making enterprises. In the 12th Five Year Plan Promotion and strengthening of FPOs was identified as a significant strategy to attain agricultural growth (FYPs are centralized and integrated national economic programs) by government of India (Abraham, 2016). As the FPOs strive to achieve sustainability, there is an urgent need to reorient their business strategies and focus on enhancing income and profit through value addition.

3. VALUE ADDITION

3.1. What is value addition?

Value-added food products are raw or pre-processed commodities whose value has been increased through the ingredients or processes that make them more attractive to the buyer and/or more readily usable by the consumer. It is a production/marketing strategy driven by customer needs and perceptions.

3.2. What are value added products?

A change in the physical state or form of the product (such as milling wheat into flour or making strawberries into jam).

3.3. List of Profitable Value Added Products from Fruits & Vegetables

According to a study conducted by Gupta (2017) following businesses are highly profitable in food processing industry.

a. Fruit Juice (Mango, Orange & Litchi) and Sugarcane Juice in Aseptic Packaging and Pet Bottles
b. Banana and by-products
c. Canned Foods Chopped Tomatoes, Cheeked Beans and Mushrooms
d. Coconut Processing Unit

3.4. Examples of Value Addition

Manufacturing Procedure of Pineapple jam

Fig 3: Pineapple jam processing (TNAU, 2018)

Figure 3, shows how pineapple is value added and converted into pineapple jam. There are number of steps as shown above. Initially pineapple pulp is cooked with sugar and mixed well. Then cook until jam is consistent, after that fill it in a sterilized jar and let it cool down. Then store it a cool temperature.

Manufacturing Procedure of Pineapple squash

The preparation of pineapple squash is shown in the flow chart below (Fig. 4). Initially pineapple is peeled and cut into pieces. After this, next step is the preparation of syrup then strain it .Mix the pulp and sugar syrup and add sufficient preservatives. Next bottle them and store them in a cool temperature.

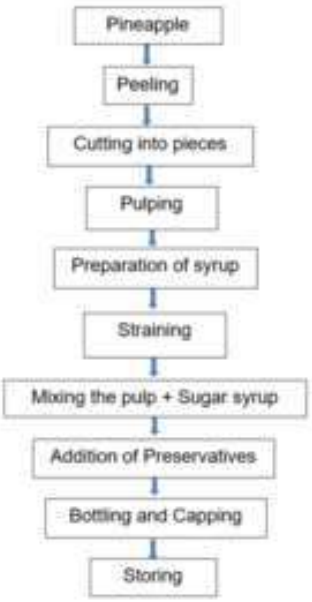

Fig 4: Pineapple squash preparation (TNAU, 2018)

4. RESEARCH METHODOLOGY

The data presented in this research paper is part of a study on Farmer Producer Organizations (FPOs) all over Kerala. The main objective of the research is to identify how many of the existing FPO's are involved in value addition and which product is the most value added among the collected data, also why majority of the FPOs are unable to do value addition although it is a profitable activity. To achieve these, quantitative research method and literature based research was carried out. Quantitative research focused on data collection from different FPOs in Kerala. The data was collected through surveys and telephonic interviews. Surveys were conducted by creating an online survey form and the survey was send out to about 100 FPOs in different districts in Kerala. The 100 FPOs were selected on the basis of their number of member farmers, stage of life cycle, their produce and different regions of Kerala. Among the100 FPOs, about 48 FPOs attended the survey. The quantitative survey was done via emailing the link to the online survey to all 100 FPOs. Telephonic interviews were also conducted with senior management officials of 20 FPOs to understand challenges involved in value addition

5. RESULTS AND ANALYSIS

5.1 Research Results

Figure-1 shows the state-wise distribution of FPOs in Kerala and the district-wise number of FPOs involved in value addition.

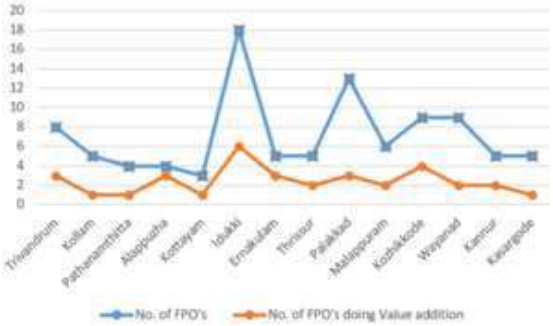

Fig.1: State-wise distribution of FPOs in Kerala

Majority of the farmer producer organisations in Kerala are in Idukki and Palakkad districts. It clearly shows that very few FPOs are involved in value addition activities. Idukki district has the largest number of FPOs that are involved in value addition, and Kozhikode district has the second largest number of FPOs involved in value addition. Kollam, Pathanamthitta and Kasargode districts have the lowest number of FPOs involved in value addition activities. Alappuzha district has the highest percentage of FPOs involved in value addition (75%), followed by Ernakulam district (60%) having the second highest percentage.

Fig 2: Sector-wise distribution of FPOs involved in value addition

The above graph (Figure-2) depicts the sector-wise distribution of FPOs in Kerala involved in value addition activities. Pineapple sector has the highest number of FPOs involved in value addition. This is followed by apiculture industry (honey). Value addition activities are mainly done by FPOs involved in pineapple, honey, pepper, coconut, turmeric, cardamom, banana, dairy, vegetables.

It would be interesting to note that less than 35% of the farmer producer organizations in Kerala are involved in value addition activities.

According to survey, major value added products made by FPOs in Kerala

Coconut	Coconut Oil, Neera, Neera Jam, Coconut Chutney, Neera Vinegar, Neera Honey, Neera Jaggery
Pineapple	Jam, Squash, Juice
Banana	Chips, Dry Banana
Milk	Curd, Sambaram, Fresh Milk

5.2 Challenges of value addition

According to telephonic interview conducted with senior management of FPOs as part of this research, following issue have been mentioned by them for involving in value addition activities.

5.2.1 Financial problems

One of the main issues mentioned by farmers and farmer producer organizations is the financial problem. They need enough amount of money for machineries, labours, infrastructure, storage, packing etc. This is the main reason due to which most of the FPO's are unable to involve in value addition and food processing business.

5.2.2 Unskilled Labour

Another major problem mentioned by FPOs was the lack of availability of skilled labourers, who can operate machines and new food processing equipment. There are inadequate vocational training centres and skill development institutes that provide training in food processing. Available skilled labourers are

expensive. Also, FPOs need to invest additional time and money in skill development programmes.

5.2.3 Technical Challenges

Farmers and producer organizations are unaware of modern technologies and lack resources in sourcing new sourcing latest technologies and modern equipment. They need support of technically qualified youth, NGOs, technology transfer centres and producer organisation promoting institutions (business incubators), who can help in evaluating new technologies and developing new business strategies matching with current societal trends.

6. CONCLUSIONS

FPOs can increase profit through value addition but most of them are not able to do this due to factors such as lack of finance, skilled workers and technical challenges. FPOs should develop their capacity in mobilizing finance from banks, government agencies, development organizations and shareholder member farmers and producers. There are collateral free loans offered by banks and subsidies offered by Ministry of Agriculture and Ministry Food Processing Industries. It would be beneficial if FPOs have technically qualified people with management skill and experience in their board of directors and top management or such resources are provided by the Producer Organization Promoting institutions in implementing value addition projects. Organizations like CSIR Council of Scientific and Industrial Research, KVK Krishi Vigyan Kendra, ICTI International Centre for Technological Innovations, etc. can help FPOs in establishing food processing units and for value addition by providing assistance in technology sourcing, training of workforce and fund raising.

We also recommend FPOs in Kerala may also explore possibilities of manufacturing following value added products.

Coconut	Coconut, Jaggery, Soap, Mayonnaise, Coconut Sugar, Coconut Jam, Syrup And Honey
Pineapple	Pineapple Candy, Vinegar, Pineapple Ready-to- Serve Beverage
Banana	Banana Fig, Banana Flour, Banana Powder, Banana Puree, Biscuits, Jam, Wine, Health Drink And Baby Food
Milk	Cheese, Powdered Cream, Peda, Kulfi Rabri

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