

Linking Millet Farmer Producer Organizations to Market through Millet Startups

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Abstract

The aggregation of farmers is the need of the hour, as they are cultivating in small patches of land which is not economical to purchase inputs and market their produce. However, the green revolution has improved the production and productivity of major staple food crops of India and was successful in achieving self-sufficiency in food. Despite this, it is still observed that malnutrition, undernutrition and obesity among people, which is due to the deficiency of nutrients, vitamins and other essential components in the food system is resulting in hidden hunger. Hence, the demand for nutri-cereals or millets is increasing in the market for their nutritional value and capacity to combat lifestyle ailments. In this background, ICAR-IIMR, Hyderabad is involved in the formation and handholding of 31 Millet FPOs across four states of India to balance the demand and supply in the market. As a Cluster Based Business Organization (CBBO), IIMR is organizing capacity building programs for BoDs and CEOs of newly formed FPOs further helping them in infusing the same skills to their shareholders. It is also supporting FPOs to connect to line departments. FPOs are also millet startups, SAUs and KVKs for technical support. To transform the farmers and their organization into a business entity, IIMR has trained FPOs to undertake processing and value addition of millets and connecting to markets. An efforts was also made by IIMR to connect FPOs to e-marketing channels to sell their products directly to the intended consumers.

Keywords: FPOs, Millet Market, Millet Startups, IIMR

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Introduction

Farmer Producer Organizations (FPOs) are farmers' collectives, which enjoy legal provisions for sharing profits earned by the company by means of a dividend. They also offer various services and mainly concentrate on the marketing of their members' produce, thus assuring the market for the latter's produce. The main aim of an FPO is to create competitiveness among farmers and to increase their advantage in the emerging market opportunities. (Ramappa and Yashashwini, 2018). The major operations of FPOs include procurement of inputs, market linkages, networking, facilitating finance, processing and quality control, training and technical advice.

It is important to ensure farmers remunerative prices for their produce, which consists of two aspects like, Minimum Support Price (MSP) and producer share in the consumer rupee. MSP is applicable to a specified set of commodities and is available only in a subset of producer states. The commodities such as fruits and vegetables, which are highly perishable, are quoted with a low price and with a localized nature of markets for them. The supply chain remains fragmented, the scale of operations is low and there is excessive presence of intermediaries. (Rajui and D Kumara Charyulu, 2017).

In this background, the Govt. of India has initiated various measures to address issues in agricultural marketing which are likely to have a positive impact on farmers' income. The launching of electronic National Agriculture Markets (eNAM) is one such measure, which creates a unified market by creating an online platform to promote marketing of agricultural produce at the state as well as at the national level. Similarly, the Model Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017, of GOI, incorporates various changes to reflect the agenda of a unified national market for agriculture, besides facilitating alternate market channels, including opening up the system to the private sector as well for alternate online marketing platforms. Besides this, the government agencies and other

stakeholders can provide market linkages in their specialization, to support the farming community. In this connection the present study was carried out in ICAR-IIMR to support FPOs to connect to the market so that its members get the benefit of it.

Methodology

The present study was carried out in the year 2020-21. ICAR-IIMR in Hyderabad, is an agricultural research institute engaged in basic and strategic research on sorghum and other millets. It conducts research on millet improvement, and value addition. Under the National Food Security Mission (NFSM) Nutri-Cereals, , IIMR as a Resource Organization has supported in forming six FPOs which are distributed in Karnataka, Andhra Pradesh and Telangana states. Of late, in the New Central Sectoral Scheme, as a Cluster Based Business Organization (CBBO), IIMR is promoting and handholding 25 FPOs. Having known the major problems in agriculture, IIMR has been supporting in linking millet-based FPOs to the market to bring the farmers into the mainstream of the marketing system.

ICAR-IIMR has provided the marketing facility by procuring the produce from FPOs. Apart from this, it is also involved in connecting individual FPOs with the traders, procurers, buyers, food industries etc. The role of IIMR is to facilitate market linkages and to witness the agreement between the FPO and Industry without entering into actual trade or business between the FPO and industry. In this connection, IIMR has been involved in creating market linkages with the FPOs and food industries and organizations. The Millet Farmer Producer Organization and its activities are presented in Fig 1.

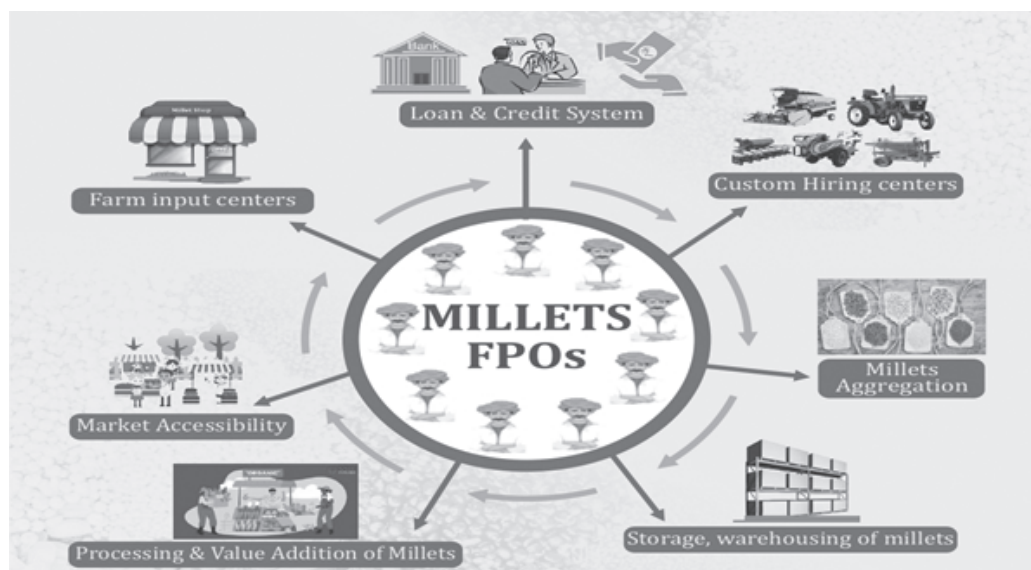


Fig 1: Millet Farmer Producer Organizations

Results and Discussion

Table 1: List of FPOs Promoted by IIMR under NFSM Nutri-Cereal Sub Mission in Andhra Pradesh, Telangana, Karnataka and Madhya Pradesh

Sl. No.	Name of FPO	No. of Shareholders	Equity (in Lakhs)	Millet crops	Area of acreage targeted
1.	Visakha Millet Farmers Producer Company Limited, AP	650	6.50	Foxtail and Barnyard millet	5000
2.	Mahabubnagar Farmer Producer Company Limited. Telangana	502	5.02	Finger Millet and Yellow Jowar	1200
3.	Greens Millet Farmer Producer Company Limited, Karnataka	498	4.98	Foxtail millet and Maldani Jowar	2000

4.	Ananta Aadarana Millet Farmers Producer Company Limited, AP	300	3.00	Barnyard Millet and Foxtail Millet	1500
5.	Halchalit Mahila Kisan Women Farmers Producer Company Limited, Madhya Pradesh	574	5.74	Little Millet and Kodo Millet	6000
6.	Koppal Millets Farmer Producer Company Limited, Karnataka	95	1.00	Foxtail millet	500

Table 1 represents the list of FPOs formed and promoted by IIMR under NFSM Nutri-Cereals. IIMR was the Resource Organization for six FPOs spread across four states, two FPOs each in Andhra Pradesh and Karnataka, one each in Telangana and Madhya Pradesh. It can also be seen from the table that, among the six FPOs, five FPOs except Koppal Millets Farmer Producer Company Limited, Karnataka has reached the targeted shareholders, i.e., more than 300 farmers, since its inception. They have also collected the share amount from the shareholders to submit for equity and also undertake business activities. All these six FPOs are involved in the cultivation, processing and value addition of millets like Finger Millet, Kodo Millet and Yellow Jowar, Foxtail Millet, Little Millet, Pearl Millet etc.

In due course of time, the FPOs have also set a target to cover the area of acreage to undertake their operations, viz., Halchalit Mahila Kisan Women Farmers Producer Company Limited, Madhya Pradesh in 6000 acres followed by Visakha Millet Farmers Producer Company Limited, AP in 5000 acres, Greens Millet Farmer Producer Company Limited, Karnataka in 2000 acres, Ananta Aadarana Millet Farmers Producer Company Limited, AP in 1500 acres, Mahabubnagar Farmer Producer Company Limited. Telangana in 1200 acres and Koppal Millets Farmer Producer Company Limited, Karnataka in 500 acres.

Table 2: List of FPOs promoted by IIMR with support of SFAC in Karnataka under Central Sector Scheme

Sl. No.	Name of FPO	No. of Shareholders	Equity	Millet crops	Area of acreage covered
1.	Hulsoor Mahila Kisan Millets Producer Company Limited	308	6.16	Jowar, Foxtail Millet, Finger Millet and Little Millet	2000
2.	Indi Savayava Hagu Siridhanya Producer Company Limited	160	2.80	Foxtail Millet, Lemon, Redgram and Kodo millet	2000
3.	Aland Bhootai Millets Farmers Producer Company Limited	300	2.41	Foxtail Millet, Redgram, Little Millet and Jowar	2500
4.	Nidgundi Sri Hadi Basavannappa Oilseed and Millets Producer Company Limited	168	3.36	Foxtail Millet, Little Millet, Jowar, Groundnut, Onion and Lime	2000
5.	Jamakhandi Oilseed and Millets Producer Company Limited	306	3.01	Foxtail Millet, Finger Millet, Little Millet and Jowar	1500

6.	Mudhol Oilseed and Millets Farmers Producer Company Limited	315	1.84	Foxtail Millet, Finger Millet, Little Millet, Jowar and Browntop Millet	1000
7.	Nandi OM Farmers Producer Company Raichur	380	7.60	Foxtail Millet, Finger Millet, Little Millet and Jowar	1500
8.	Shorapur Taluka Millets Farmers Producer Company	315	2.04	Foxtail Millet, Finger Millet, Little Millet and Jowar	3000
9.	Jewargi Taluka Millets Farmers Producer Company Limited	125	1.00	Foxtail Millet, Finger Millet, Little Millet, Jowar and Browntop Millet	2000
10.	Bettada Basaveshwara Farmer Producer Company Limited	260	2.50	Jowar, Little Millet and Foxtail Millet	1000

It is evident from Table 2 that, in total, 10 FPOs were implemented by SFAC and promoted by IIMR as Cluster Based Business Organizations (CBBOs) under the Central Sector Scheme. All the 10 FPOs were implemented at various districts of Karnataka. Six FPOs have mobilized more than 300 farmers to be their shareholders, viz., Hulsoor Mahila Kisan Millets Producer Company Limited (302), Aland Bhootai Millets Farmers Producer Company Limited (300), Jamakhandi Oilseed and Millets Producer Company Limited (306), Mudhol Oilseed and Millets Farmers Producer Company Limited (315), Nandi OM Farmers Producer Company Raichur (382) and Shorapur Taluka Millets Farmers Producer Company (315). Further, these six FPOs have also submitted the application for equity to their Implementing Agency. The rest of the four FPOs namely, Indi Savayava Hagu Siridhanya Producer Company Limited (160), Nidgundi Sri Hadi Basavannappa Oilseed and Millets Producer Company Limited (168), Jewargi Taluka Millets Farmers Producer Company Limited (125) and Bettada Basaveshwara Farmer Producer Company Limited (260) are in the process of mobilizing the farmers.

The table also gives information on the major crops dealt by FPOs. A majority of the FPOs are working on Foxtail Millet, Finger Millet, Little Millet and Jowar and also pulses redgram and chickpea. Nidagundi, Jamkhandi and Shorapura FPOs are also growing Groundnut, Hulsoor and Jamkhandi FPOs deal with Soyabean apart from millets. Farmers of Nandi Om and Bettadabasaveshwara FPOs grow cotton and chilli. The variation in the crops grown apart from millets is due to the local crops cultivated as per their agro climatic conditions.

It can also be understood from the table that, regarding the targeted area of acreage, Shorapur Taluka Millets Farmers Producer Company has targeted to cover 3000 acres followed by Aland Bhootai Millets Farmers Producer Company Limited to cover 2500 acres, Hulsoor Mahila Kisan Millets Producer Company Limited, Indi Savayava Hagu Siridhanya Producer Company Limited, Nidgundi Sri Hadi Basavannappa Oilseed and Millets Producer Company Limited and Jewargi Taluka Millets Farmers Producer Company Limited have targeted an area of 2000 acres each Jamakhandi Oilseed and Millets Producer Company Limited and Nandi OM Farmers Producer Company Raichur have targeted 1500 acres of area and Mudhol Oilseed and Millets Farmers Producer Company Limited as well as Bettada

Basaveshwara Farmer Producer Company Limited have targeted about 1000 acres of land to undertake cultivation of millets and other mandated crops of their respective FPOs.

Table 3: List of FPOs promoted by IIMR with support of WDD in Karnataka

Sl. No.	Name of FPO	No. of Shareholders	Equity	Major crops	Area of acreage covered
1.	Annigeri Taluk Farmer Producer Company Limited	750	7.5	Green gram, Maize, Bengal gram Millets and Chilli	5000
2.	Chitguppa Taluka Farmers Producer Company Limited	200	2.0	Jowar, Soyabean, Redgram, Greengram and Black gram	3000
3.	Navalagund Taluka Raita Mitra FPC Limited	500	5.0	Bengal gram and Chilli	4500
4.	Alnavar Taluka Farmers Producer Company Limited	340	3.40	Paddy, Maize and Mango	3000
5.	Dharwad Taluka Farmers Producer Company Limited	302	3.02	Soyabean and Bengal gram	5000
6.	Kanakagiri Raita Shakthi Millets Producer Company Limited	300	3.0	Millets	2500
7.	Kayaka Farms Farmers Producer Company Limited	Nil	Nil	Pomegranate	2000
8.	Kukanuru Dharani Millets Producer Company Limited	333	3.33	Millets	4000
9.	Kushtagi Farmers Producer Company Limited	302	6.04	Drumstick	2500

Table 3 indicates the list of FPOs promoted by IIMR with support of Watershed Development Department (WDD). In total 9 FPOs were implemented in Karnataka state. Out of nine FPOs, six have mobilized more than 300 farmers and shareholders namely, Annigeri Taluk Farmer Producer Company Limited (750), Navalagund Taluka Raita Mitra FPC Limited (500), Alnavar Taluka Farmers Producer Company Limited (340), Dharwad Taluka Farmers Producer Company Limited (302), Kanakagiri Raita Shakthi Millets Producer Company Limited (300), Kukanuru Dharani Millets Producer Company Limited (333) and Kushtagi Farmers Producer Company Limited (302). Among these FPOs, Annigeri Taluk Farmer Producer Company Limited, Navalagund Taluka Raita Mitra FPC Limited, Alnavar Taluka Farmers Producer Company Limited and Kushtagi Farmers Producer Company Limited have submitted the equity application to the funding agency. The rest of the two FPOs viz., Chitguppa Taluka Farmers Producer Company Limited and Kayaka Farms Farmers Producer Company Limited are in the process of mobilizing the farmers to be shareholders of their respective FPOs.

The table also furnishes information on the major crops dealt by FPOs, wherein, Annigeri Taluk Farmer Producer Company Limited is concentrating on crops like Green gram, Maize, Bengal gram and Chilli. Chitguppa Taluka Farmers Producer Company Limited are dealing with Soyabean, Redgram, Greengram and Black gram. Major crops of Navalagund Taluka Raita Mitra FPC Limited are Bengal gram and Chilli. Alnavar Taluka Farmers Producer Company Limited majorly deals with Paddy, Maize and Mango. Soyabean and Bengal gram are the major crops of Dharwad Taluka Farmers Producer Company Limited. Kanakagiri Raita Shakthi Millets Producer Company Limited and Kukanuru Dharani Millets Producer Company Limited are dealing with millets. Kayaka Farms Farmers Producer Company Limited has undertaken plantation of Pomegranate and Kushtagi Farmers Producer Company Limited deals with Drumstick.

Apart from NFSM Nutri- Cereals, SFAC and WDD FPOs, ICAR-IIMR is also involved in the promotion of FPOs of NABARD and NCDC in Andhra

Pradesh and Telangana states. So far, four FPOs are being promoted under NABARD in Andhra Pradesh and Telangana, and two FPOs under NCDC in Telangana. These FPOs are in the process of mobilizing the farmers to be the shareholders of the FPOs.

Table 4: List of FPOs formed and handholding by IIMR statewise

S. No.	State	FPOs (Numbers)
1.	Karnataka	21
2.	Andhra Pradesh	04
3.	Telangana	05
4.	Madhya Pradesh	01
	Total	31

Table 4 indicates the number of FPOs promoted by IIMR and which are implemented in various states. This clearly depicts that, 21 FPOs are being incorporated in the state of Karnataka, followed by five FPOs in Telangana, four FPOs and one FPO in Andhra Pradesh and Madhya Pradesh respectively. IIMR has been involved in the promotion of a total of 31 FPOs spread across four states of India, with the intention to popularize and create awareness on the importance of millets and thereby inculcate the habit of consumption of millets for good health and further, to connect small holders to the market.

A hypothetical model which represents the current scenario of farmers who market their produce to the local aggregator and what would happen if he/she sell their produce directly to the consumers is shown in Fig 2.

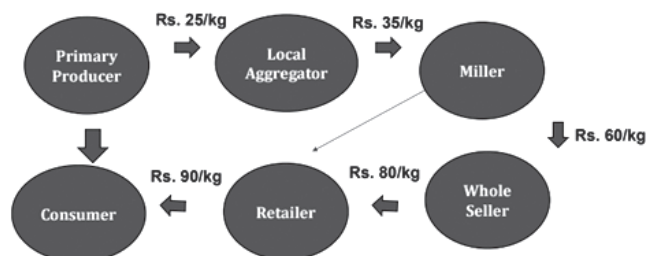


Fig 2: Millet Farmers' Share in consumer rupee

According to studies, there exists a difference between traditional marketing of the produce grown by the farmers and how the intervention of FPO bring changes in the marketing of their produce, by eliminating the marketing middlemen to ensure the economies of scale to the farmers. This concept is depicted in Fig 3.

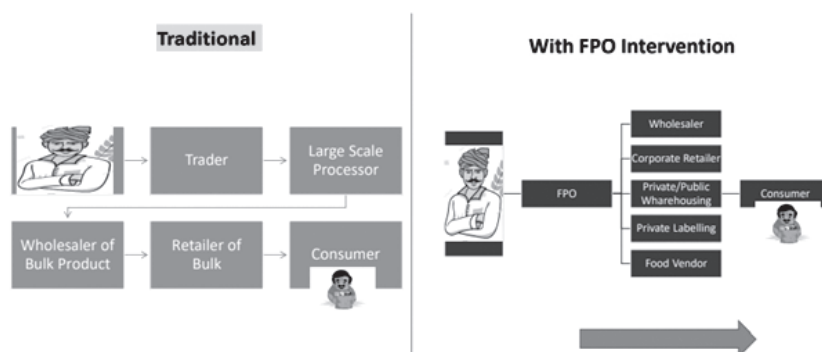


Fig 3: Supply chain of Millets and FPOs

The schematic representation of the Supply chain of Millets and FPOs is shown in Fig 4. This indicates the interlinkage of millet growers and the FPOs for undertaking activities like, providing inputs, training, capacity building programs, procurement, aggregation, undertake processing and value addition and further, sale of value-added products from FPOs directly to retailers.

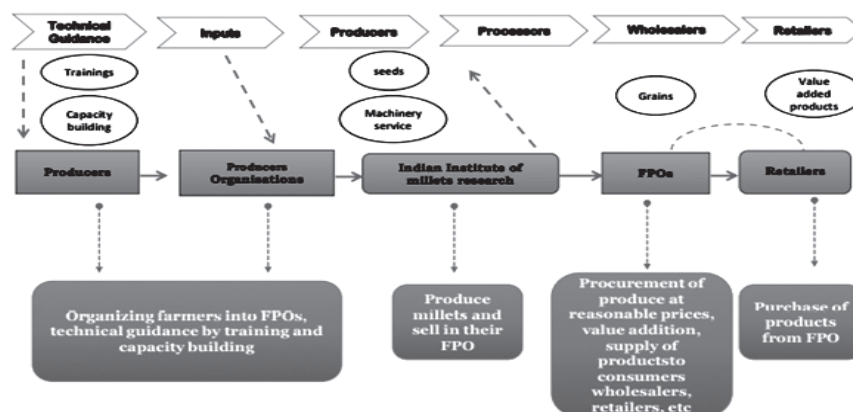


Fig 4: Supply chain of Millets and FPOs

Table 5: Market linkage created for millets business by IIMR

Sl. No.	FPO	MoU signed with	Crops/ products	Quantity (tons)
1.	Hulsoor Mahila Kisan Millets Producer Company Limited	Nutrihub, ICAR- IIMR	Sorghum	10
2.	Visakha Millet Farmers Producer Company Limited	Nutrihub, ICAR-IIMR	Foxtail millet and Barnyard millet	100 100
3.	Greens Millet Farmer Producer Company Limited	Yash Foods Private Limited	Foxtail millet	130
4.	Koppal Millets Farmer Producer Company Limited	Poornashraddha Pvt. Ltd	Foxtail millet and Pearl millet	1 ton

Market linkages created for millets business by ICAR-IIMR for various FPOs is represented in Table 5, wherein, it can be seen that, Hulsoor Mahila Kisan Millets Producer Company Limited and Visakha Millet Farmers Producer Company Limited have signed an MoU with ICAR-IIMR, Hyderabad for the sale of Sorghum, Foxtail millet and Barnyard millet respectively. Apart from procurement made by IIMR, it has also successfully made a market linkage for Greens Millet Farmer Producer Company Limited for sale of Foxtail millet and Koppal Millets Farmer Producer Company Limited for sale of Foxtail millet and Pearl millet with Yash Foods Private Limited and Poornashraddha Pvt. Ltd respectively. This effort is intended to support the farmers to cultivate and to assure them with the market to sell their millets produce. IIMR is also in the process of linking other FPOs with markets for ensuring better income to the shareholders of FPOs.

Table 6: Business Activities of FPOs of Different Implementing Agencies

Sl. No.	Implementing Agencies	Commodities
1.	SFAC	Millets, Pulse magic, Chickpea magic and seeds
2.	WDD	Millets, Oil, Jaggery and Rawa

3.	NABARD	Fertilizers
4.	NCDC	Millets and Vegetables
5.	NFSM Nutri-Cereals	Millet noodles, Papad, Rawa and Millet Dosa mix Flour

Business activities of FPOs of different Implementing Agencies are presented in Table 6 and it reveals that, SFAC FPOs which are operating in different districts of Karnataka are undertaking business activities on Pulse magic, Chickpea magic and seeds. Similarly WDD FPOs of Karnataka state are operating business on Oil, Jaggery and Rawa in addition to Millets processing & Value addition. NABARD FPOs in Andhra Pradesh and Telangana are undertaking business on Fertilizers, NCDC FPOs in Telangana states are operating their business with Millets and vegetables. The FPOs implemented under NFSM Nutri- Cereals have undertaken value addition of millets and sell products like Millet noodles, Papad, Rawa and Millet Dosa mix Flour.

**Table 7: Supply of Millet Seeds by IIMR to FPOs During 2021
(Kharif Season)**

Sl. No.	Name of FPO	Name of millets	Quantity (Kg)
1.	Visakha Millet Farmers Producer Company Limited	Foxtail millet	200
2.	Hulsoor Mahila Kisan Millets Producer Company Limited	Little Millet Foxtail millet Proso millet	100 100 50
3.	Aland Bhootai Millets Farmers Producer Company Limited	Little Millet Foxtail millet	100 100
4.	Mahabubnagar Farmer Producer Company Limited	Sorghum Ragi Foxtail millet	300 200 150
5.	Halchalit Mahila Kisan Women Farmers Producer Company Limited	Little Millet Kodo millet	200 250

6.	Ananta Aadarana Millet Farmers	Foxtail millet	300
	Producer Company Limited	Little Millet	200

Table 7 indicates the list of FPOs to whom ICAR-IIMR has supplied seeds of millets to promote the adoption of good quality of seeds in the production of millets. IIMR has supplied 200 Kg of Foxtail millet seeds to Visakha Millet Farmers Producer Company Limited. Little Millet (100 Kg), Foxtail millet (100 Kg) and Proso millet (50 Kg) seeds were supplied to Hulsoor Mahila Kisan Millets Producer Company Limited. 100 Kg each of Little Millet and Foxtail millet were supplied to Aland Bhootai Millets Farmers Producer Company Limited. Sorghum (300 Kg), Ragi (200 Kg) and Foxtail millet (150 Kg) were supplied to Mahabubnagar Farmer Producer Company Limited. Little Millet (200 Kg) and Kodo millet (250 Kg) seeds were supplied to Halchalit Mahila Kisan Women Farmers Producer Company Limited. 300 Kg of Foxtail millet and 200 Kg of Little Millet were supplied to Ananta Aadarana Millet Farmers Producer Company Limited. ICAR-IIMR is working in the direction to promote the production, processing and value addition of millets to infuse the habit of consumption of millets among the folk to maintain good health.

Linking Millet Startups with FPOs

ICAR-Indian Institute of Millets Research (IIMR), is the nodal agency working on all aspects of millets research and development in the country. Nutrihub is a focal point where ideas, entrepreneurs, agripreneurs, startups, experts, the academic and the funding agencies shall gravitate towards the creation of a new knowledge-based economy. ICAR-IIMR under Nutrihub has incubated 15 startups and those have started their business on millet-based value addition and are marketing their produce in their own brand. In this connection, an effort was made to link Millet FPOs to these startups to sell the millets produced by FPOs of IIMR. This is a win-win situation for both FPOs as well as the startups where the former could find the right market and the latter could get quality produce for further processing and value addition.

Conclusion

FPOs have been playing a major role in bringing together like minded farmers and helping them help themselves by means of the collective purchase of inputs and marketing of their produce in bulk by overcoming the middlemen in the long chain of the marketing channel. Thus, the IIMR as a CBBO is involved in integrating FPOs with both forward and backward linkages in agriculture. The main objective is to bring economies of scale to the farmers by improving the income of the farmers. The IIMR as a CBBO for 25 FPOs and resource organization for six FPOs has come up with market linkages to help farmers to sell their produce. In this connection, IIMR has successfully linked three FPOs to market future strategies anticipating that these FPOs will bring about significant changes in the lives of small and marginal farmers. However, a majority of these FPOs are in the formation stage and hence require proper guidance and suggestions regarding improving the value of their produce by means of processing and value addition. Ultimately the FPOs in general and farmers, in particular, need a proper channel to market their produce.

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