Research Brief
October 2014

Market-Led Institutional Innovations and Extension Imperatives

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Introduction

Linking farmers to markets has been the Achilles heel in the agricultural development strategy. Small size of holding and small scale of operation have been stated as the major constraints, followed by high cost of transaction and lack of entrepreneurial skills. Though collectivization is being stressed for effective linkage, collective action is a missing phenomenon among small and marginal farmers and farmer- driven collectivization process is still rare. However, the government and private sectors interventions have provided some impetus to it.

Collective actions and institutional arrangements like cooperatives, growers' associations, farmer producer organizations, and contract farming could be pro-small farmers in linking them to markets as they reduce the marketing and transaction costs and risks but the challenge is integration and inclusiveness of small farmers in supply chains (Birthal *et.al*, 2007).

This policy brief describes the four models of empowering farmers through market-led institutional innovations, namely, direct linking of farmers and consumers through Grain festival (*Dhanya Mahotasava*), Maharshtra; linking through farmers' associations (Gajanan Maharaj Jawas (Linseed) Utpadak Samuh Gat, Nagpur and MAHAGRAPE, Pune, Maharashtra), linking through Women's SHGs (*Mahila Resham Udyog Sahkari Samiti*, Hoshangabad, Madhya Pradesh) and cooperatives (Madhurapur Women Milk Producers Cooperative Ltd, Vaishali, Bihar) and linking through farmers' producer companies (*Samarath* Producers' Company, Agar, Madhya Pradesh), which have facilitated inclusiveness of small farmers. The factors determining the sustainability of farmers' organizations as perceived by the farmers are also described.

Linking farmers directly to consumers - a case of grain festival (*Dhanya mahotasava*)

With a view to eliminating the middlemen, an innovative mechanism of linking farmers directly to consumers has been initiated in Maharashtra in form of grain festival or locally named as *Dhanya Mahotasava* by the collaborative endeavours of Agricultural Technology Management Agency (ATMA) and Maharashtra Agricultural Competitive Project. It entails the linkages among the farmers, consumers and service and support agencies like ATMA, line departments and institutions. A market place at district/block level with logistics is provided free of cost to the farmers, where the farmers can sale their produce. A wide advertisement about the festival/*mahotsava* is done through ATMA to sensitize the farmers and consumers for participation. The farmers are provided with uniform sale bags with identification marks like name and address of farmer or group, contact number, crop details, etc to facilitate tracking and future linkages. A satisfied consumer could place the demand in advance to the concerned farmer or group, while a dis-satisfied consumer could complain to the farmers or group about the poor quality. The farmers and the consumers were highly satisfied with the arrangements as revealed by the gains accrued to them. Direct marketing of wheat to consumers ensured about 17 per cent gain to the farmers as compared to selling in *mandis*. The farmers with happy experiences shared that the margin of gains could be further enhanced through new skills and visions in producing crop varieties as per consumers' preference and adopting postharvest handling (grading and cleaning) and packaging practices. Besides quality assurance, the consumers had the benefits of savings (16 per cent per quintal) due to purchase of wheat directly from the farmers.

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Dhanya mahotasava has been appreciated and preferred by both the farmers and consumers. The benefits for the farmers included elimination of the presence and wrath of the middlemen, convenience in marketing, learning about better management practices from peer farmers, elated confidence due to sale of produce, enhanced motivation to scale up production and marketing based upon consumers' choice and integration of postharvest technologies, and enhanced linkages with the agencies and consumers. For consumers, availability of quality produce at cheaper rate with a variety of choices and opportunity of children's agricultural education excursion were the major attractions.

However, there are challenges in the sustainability of the *Dhanya mahotsava*, such as making it an institutionalized mandate of the department of agriculture, improving the logistics like refrigerated storage for perishable products, providing facility of banks to deposit the daily earnings and avoid the cases of theft, and ensuring proper stay arrangements besides incentives and support in upscaling.

Mobilizing farmers' associations and linking to value chain with public-private partnership

Very often the farmers exceptionally excel in technology adoption and production but fail to draw the benefits in want of market and value chain linkages. Linking to value chains has shown immense potential in ensuring the farmers remunerative returns and upscaling their scale of production.

A tripartite public-private partnership of Agricultural Technology Management Agency (ATMA), Nagpur; PDKV Akola; and BAIF, Pune with a farmers' association called *Gajanan Maharaj Jawas (Linseed) Utpadak Samuh Gat* of Chikhlapar, Bhiwapur, Nagpur in Maharashtra has proved to be a boon for the farmers. Started in 2010, the linseed growers' association has 200 members, who grow linseed (var.NL 260 having maximum 43% Omega -3) with seeds from BAIF, technological backstopping from PDKV, Akola and input and capacity building support (like Farmers' Field School programme, exposure visits and trainings) from ATMA. The produce is procured by BAIF for value addition. Every farmer has a quota of 10 quintals for procurement by the association. As against Rs 4600 per quintal in conventional marketing, the farmers secured a rate of Rs 5000 per quintal sale of produce besides Rs 250 per quintal as incentive. There was an additional gain of Rs 650 per quintal with this mechanism for the farmers, while BAIF had a assured supply of quality linseed suitable for value addition.

Technological backstopping, assured buy-back facility, and input assistance were the major drivers for its success.

For sustainable value-chain development, the farmers have to be trained to produce commodities with the pre-defined quality standards, which could be procured by the firms. Besides the arrangements for quality inputs and technological backstopping, what is more important is the prevalence of ethical standards in partnership. Breach of trust has to be avoided and a mechanism of arbitration should be in place for successful partnership.

The partnership of Department of Sericulture; Agricultural Technology Management Agency (ATMA), and *Mahila Resham Udyog Sahkari Samiti* in Hoshangabad district of Madhya Pradesh helped the landless tribal farm families enter sericulture based value chain and ensure livelihood security. Living in abject poverty, the landless tribal farm families used to work as farm labourers in distant villages and had employment for 3 to 4 months during sowing, intercultural and harvesting operations. A process of social empowerment was initiated through mobilization and formation of tribal women self help groups (SHGs), which were federated in *Mahila Resham Udyog Sahkari Samiti*. One acre land was given to all the women members of the *Samiti* for sericulture on lease. They were trained and educated to take up sericulture with trainings, exposure visits, and demonstrations through ATMA. With this approach, the tribal women household secured income in range of Rs 65,000 to Rs 1,15,000 per year and employment for about 10 to 11 man-months.

The key elements of the institutional mechanism were provision of revolving fund to procure inputs, supply of quality planting materials, provision of shed and cocoon rearing houses, and the assured procurement of cocoons by the *Samiti*. Such institutional arrangements are essential to promote business oriented farming and strengthening the market linkage among the poor and small farmers.

Augmentation of collectivization as farmers' Cooperatives and Associations

Case analysis of Madhurapur Women Milk Producers Cooperative Ltd, Bihar and MAHAGRAPE of Maharshtra revealed that the farmers' cooperatives and associations have been highly effective in enhancing linkage with markets through greater and easy access to new technologies, information and inputs besides enhanced bargaining power through collective action.

Established in 1987, Madhurapur Women Milk Producers Cooperative Ltd is a vibrant and successful case of women-led cooperative. There are 450 members. Significant increase of the membership in the cooperative with annual compound growth rate of about 4.75 per cent (Table-1) during 1998-2010 amply reflects the effective and profitable performance of the cooperative. The milk procurement increased with annual compound growth rate of about 22.33 per cent, which led to enhancement in income generation of milk producers. Their profit increased at an annual compound growth rate of about 17 per cent.

Table 1: The compound growth rate of activities under the Madhurapura WMPC Ltd

S.N.	Particulars	Annual compound growth rate (%)
i.	Number of members	4.75**
ii.	Milk procurement (Rs)	22.33**
iii.	Purchase of cattle feed (Rs)	23.22**
iv.	Purchase of butter (Rs)	27.99**
iv.	Gross profit (Rs)	17.13*
v.	Net profit (Rs)	17.78**
vii.	Number of A.I.	5.56**

**P<0.01 *P<0.05

The various funds for the welfare of the members like educational fund, sustainability fund, and animal welfare fund were crucial for cohesiveness and inclusiveness of villagers and members.

MAHAGRAPES, an innovative institutional mechanism for farmers' empowerment in Maharashtra, provided a fillip to the export of grapes and enhancement of the profit of grape growers. The beneficiary farmers of Sangali district secured Rs. 2.5 lakh net additional profit per hectare as compared to non-beneficiary farmers. There was high adoption behavior (79%) and high level of satisfaction (50%) among beneficiary farmers. Educating farmers about the quality standards and best practices; providing advisory and technological support; offering access to quality inputs and facilities for post harvest handling like grading, pre-cooling, storage, etc; and ensuring market linkage and higher returns have helped farmers' associations like MAHAGRAPE to facilitate inclusiveness and to capture international markets.

Linking farmers to market through Farmers' Producers Companies

Farmers' Producer Companies have emerged as a powerful and effective model of building strong grassroots institutions for enhancing the economic viability and marketing potential of farmers. They aim to integrate smallholders into modern supply networks (Trebbin and Hassler, 2012). Producer Companies are the legal institutions, registered under GOI's Producer Company Act, 2002. Their main activities include production of identified commodity, trading of agricultural inputs, marketing of produce, etc. They hire consultant for advisory services to farmers and promote local initiatives in the fields. Development of supply chain, processing, value addition and branding of products are also taken up by them. Case analysis of two producer companies, namely Samarath Producer Company, Agar and Luv & Kush Producer Company, Raisen in Madhya Pradesh revealed that even the small and marginal famers could become seed producers. Association with producers' company, helped small farmers' to draw the benefits of access to credit, supply of quality and cost-effective inputs, advisory of service providers on improved cultivation practices, and access to markets. More than 4/5th of members were highly satisfied with the technology, information, quality seed and inputs. The members earned additional income of Rs 100-Rs 200 per quintal seed besides premium on graded seeds.

However, the challenges in growth of Farmer Producer Organizations (FPOs) are galore. The initial phase of development is really very challenging as FPOs lack financial capabilities and basic infrastructures like grading, packaging and storage. Financial and infrastructure support should be provided to FPOs during the initial establishment years. Provision should be made for easy credit availability. Facilitating environment for skill upgradation of farmers in areas of new technologies of production and post harvest handling, good agricultural practices (GAP), quality standards, certification, business planning and development, market imperatives and quality standards needs to ensured to promote FPOs and business culture among the farming community for their welfare.

Factors determining the sustainability of farmers' organizations

Early disintegration and decay of farmers' organizations have been reported. The studies have highlighted education, entrepreneurial orientation, financial capacities, leadership, team spirit, interpersonal trust, etc, as the major facilitative factors for successful cooperation and performance. Lack of these assets often leads to failure of collective action.

With factor analysis of responses of the farmers, the major themes for sustainability of organizations among the farmers were found as robust finance management, incentives to members, trust among the members, and democratic style of leadership, transparency in dealings, and identity or brand of the organization (Table-2). The farmers believed that robust financial management practices are essential for sustainability. The factors related to financial irregularities like corruption, delay in payment to members, inequality in financial support to members, etc generally lead to mistrust and disintegration of organizations.

The three variables, namely, stringent audit system, accessibility to accounts, and timeliness in payment were found to have higher factor loadings in Factor 1. It reflects that financial perspective is one of the key factors for the farmers for sustainability in their perception.

The second theme was related to reward, welfare, compensation, and sustainability fund for the members. It was labeled as incentive. The farmers perceived that welfare and

Table 2: The major themes for sustainability of farmers' organizations

Rotated sum of squared loadings			
Component (Theme)	**Total**	**% of variance**	**Cumulative %**
Finance management	2.752	16.188	16.188
Incentives	2.303	13.548	29.735
Trust	2.295	13.502	43.238
Democratic style	1.953	11.488	54.726
Transparency	1.646	9.680	64.406
Identity	1.202	7.069	71.474

motivation measures enhance the sense of belongingness and keep the members' interest in organization sustained.

The third theme was related to reciprocal faith, conflict resolution, and integrity and sharing. All these four issues indicate towards behavioural traits of individual members, which reinforce cohesiveness and collective action. The theme was labeled as trust. Hansen *et al.*, (2002) viewed trust as an important thing that can have a positive impact on organizations, particularly for cooperative organizations. The other major themes emanating from farmers' responses were democratic style, transparency and identity with organization and image of their products. Financial management, incentive, trust, leadership, transparency and identity were found to be the predominant factors of sustainability of farmers' organizations.

The findings suggest that for successful functioning and growth of farmers' organizations, the farmers must be trained for management skills and competencies besides technological know-how and do-how.

Imperatives for extension

Extension has a larger as well as different and diversified role to play in capacity building of small farmers and facilitating their linkage with market. Even with the best possible technologies, farmers alone cannot sustain the market pressures and imperatives. Linking with market and making farming remunerative cannot be assured only with individual's knowledge and skill rather it should be grounded in community-based actions.

Formation of grassroots institutions like farmers' interest groups, commodity interest groups, collectives or cooperatives has emerged as the basic pre-requisite for effectiveness of market-led development.

It calls for new approaches to extension system as well as new skills and competencies among the extension professionals in areas of community mobilization, group formation and group action, developing and delivering contents about market information, channelizing weather based advisory, conducting intensive trainings and demonstrations on frontier technologies for quality production and value addition, and enhancing linkages with service providers and agencies.

Investments need to be made to promote village agribusiness centers and entrepreneurship incubation centers so that farmers gain understanding, skills and orientation towards business initiatives in agriculture. Market-oriented advisory and information system needs to be developed to keep the farmers updated about the market trends.

Stress has to be laid upon management dimensions and educating farmers about rules and regulations about cooperatives, value-orientation and modalities for contract arrangements and arbitration, and awareness about risk management measures (e.g., insurance schemes).

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