

Farmers'- Led Extension: Experiences and Road Ahead

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The present day agriculture is defined by key concept of stability, sustainability, diversification and commercialization. In the last decade, the agricultural situation in India has undergone a tremendous change in the light of liberalization and establishment of World Trade Organization (WTO). India's signing of General Agreement on Trade and Tariff (GATT) in 1994 and joining of WTO has put our agricultural into a framework of global market. Low productivity of crops added to less remunerative market prices of agricultural commodities are the major causes of worry. Thus, agricultural enterprise is found to be not very profitable although a large majority is depending on it. With the globalization of agriculture, major emphasis is laid on increasing the productivity of crops. During the last 50 years, major emphasis has been given on Production-led Extension (Duraismy, 2007).

In the changing situation, farmers need to transform themselves from mere producer-seller in the domestic market to producer cum seller in a wider market sense to realize good returns on their investments, risks and efforts. In order to achieve this goal, farmers need to know answers to questions like what to produce, when to produce, how much to produce, when and where to sell, at what price and in what form to sell their produce. Farmers have received most of the production technologies from the extension system. The extension system needs to be oriented with knowledge and skills related to the market. This revamping of extension system will certainly play a catalytic role for ushering in farmer-led and market-led extension in India (Moni, 2004).

Need of paradigm shift in agricultural extension system : India's agricultural extension system is at a pivotal point in its development. The arrangements for agricultural extension in India have grown over the last five decades, in terms of activities, organizational types and available manpower. At the outset, extension worked to bring about broad-based rural development. However, the food crisis starting in the late 1950s refocused the

efforts of extension on food security and increasing food production. The combination of Green Revolution technology in the late 1960s and Training and Visit (T&V) system in the mid-1970s enabled India to achieve food self-sufficiency during the 1980-1990s. Thereafter, the Government of India with assistance of World Bank designed and pilot-tested a new extension approach i.e. Agriculture Technology Management Agency (ATMA) that decentralized extension system, focused on agriculture diversification, thereby, that making it more market-oriented. This market-driven extension system i.e. ATMA has really made an impact in increasing farm income by organizing the farmers and making the system viable through bottom up planning (Singh et al., 2006).

While discussing the various issues for agricultural extension of 21st century in India, Samanta (1991) highlighted the importance of institutional reconstructing and renewal, and decentralized extension structure. Recently many developing countries have reaffirmed the essential role that agricultural extension can play in agricultural development as pointed out by Birner et al. (2006) and Anderson (2007). Therefore, extension functionaries need to play a major role to build the capacity of the farmers to meet the emerging challenges and make the farmers to realize better prices to their farm produce. Based on resynthesis of framework developed by Zijp (1995) and River (1997), who observed that extension has to once again reorganize as a service for providing information, advice and education, rather than technology transfer. This renewed definition of extension multiplies its potential to move beyond purely production and productivity concerns to those knowledge and information intensive, organizing clients into groups and marketing. In order to successfully address above issues and challenges, extension need to be looked into an altogether new perspective. The farmer-led and market-led extension so far is a peripheral issue and alternative approach in today's extension scenario. Hence, there is an urgent need to shift the paradigm of extension system

from mere production-led to farmer-led and market-led extension system on end-to-end basis. Therefore, new framework for conceptualizing and operating extension

system is evolved and diagrammatically presented in Table 1 and its practical approach has been discussed with relevant experiences.

Table 1. Paradigm shift from production-led to farmers-led extension system

Components	Production-led	Farmers-led
Purpose/ Objective	Transfer of production technologies	Capacity building (especially farmers extensionist), create para-professional extension workers, creating or strengthening local institutions
Goal	Foodself-sufficiency	Livelihood security including food, nutrition, employment to alleviate poverty, sustainability and conserving bio-diversity
Approach	Top-down, commodity and supply driven	Participatory, bottom-up and demand driven
Actors	Mostly public institutions	Pluralistic with public, private, non-government and farmers organizations as a partner rather than competitors
Mode	Mostly interpersonal/ individual approach	Integration of clients oriented on-farm participatory/experiential learning methods supported by ICTs and media
Role of extension agents	Limited to delivery mode and feedback to research system	Facilitation of learning, building overall capacity of farmers and encouraging farmers experimentation
Linkages/liaison	Research-Extension-Farmers	Research- Extension-Farmers Organizations(FIGs, CIGs, SHGs)
Emphasis	Information management, Production "Seed to Seed"	Knowledge management and sharing
Nature of technology	Input intensive, crop based and general recommendations as per agro-climatic zone, fixed package of information	Knowledge intensive, broad based, farming system perspective and blending with ITKs.
Critical areas	Improvement, production and protection	Decision support system, integrated farming system approach, natural resource management, clients group formation and community empowerment
Critical inputs	Money and material	Access to Information, building human and social capital
Accountability	Mostly government	To farmers rather than donors

MPKV experiences of farmers'-led extension approach : The Mahatma Phule Krishi Vidyapeepth (MPKV), Rahuri has been implementing the novel concept of Farmers-Scientists Forum (FSF) since October, 2005. The Vice-Chancellor is president, while, the Director of Extension Education is Executive President of this FSF. The FSF established at Central Campus, comprises 40 Farmer-Scientist Clubs (FSCs) of 1500 member farmers in the jurisdiction of ten districts of the university. Each FSC has coordinator and these FSCs are attached to the Colleges, Agril. Research Stations and Agricultural Technology Schools. These FSCs function as Commodity Interest Groups (CIGs). The basic idea of formulating the FSCs is to demonstrate and to educate the farmers about the technologies generated by university at different locations. MPKV has developed the farms of these members as a model for the village and these farmers in turn are servicing as farm leaders to disseminate the university technologies to other farmers in their area. Participatory research- extension approach is being promoted through the FSF. Regular Monthly

Meetings and Review Meetings are organized, wherein there is interaction between FSC members and university scientists. Database of soil, water, cropping pattern, various enterprises of member farmers etc.has been developed by the university and accordingly location specific interventions are suggested for increasing their income through agro-based enterprises. Some of the experiences of members of FSF are depicted below:

- * Seed Village Programme are regularly implemented on organized farms of members of FSCs. MPKV implemented such programme in Varur village, Dist. Ahmednagar on gram (Variety: Virat) on 70 acres in the year 2006-07. The village produced 430 quintals of Virat seed worth Rs. 21.50 lakhs, which really boosted the socio-economic condition of the farmers.
- * Another seed programme in Tambhere village of Ahmednagar district in 2007-08 yielded 12 farmers an amount of Rs 2.48 lakhs through sale of 82.8 quintals certified seed of gram variety Digvijay.

- * Demonstrations on yield targeting approach (250 tonnes/ha) of Co-265 variety of sugarcane released by MPKV was carried out on the farms of members of FSCs in Pune and Ahmednagar district in 2007-08. These farmers realized average yield of 215 tonnes/ha. This sugarcane variety is now gaining prominence in the sugarcane tract of Maharashtra through successful FLDs.
- * Capacity building of 800 members of FSCs has been carried in 2008-09 through the programme on Scaling up of water productivity of increasing livelihood through teaching cum demonstration to the farmers and trainers, a project sponsored by Ministry of Agriculture, Govt. of India, New Delhi.
- * Demonstrations through Farmers Participatory Action Research Project sponsored by Ministry of Water Resources, New Delhi are being implemented on micro-irrigation systems on farms of 100 member farmers of FSCs in the university jurisdiction since 2008-09.
- * Good example of farmers'-led and market-led extension has been created through formation of FSCs. A woman member farmer of FSC Mrs. Vanita Gunjal from Kandali village of Pune district produces continental vegetables for marketing in five-star hotels in metropolitan cities like Pune and Mumbai. She owns meagre land of 1.87 ha., but the satellite marketing under the guidance of university scientists have reaped her rich benefits. Marketing of these exotic vegetables is done under the trade name of Green Pallavi Farms and Sales. Mrs. Gunjal is the winner of N.G.Ranga Farmer Award for Diversified Agriculture (2005-06) of the ICAR, New Delhi.
- * Another member farmer of FSC Shri. Hanumant Gajare from Aran village of Solapur district has put

forth an ideal example of farmers'-led / market-led agriculture through bumper pomegranate production in scarcity area. He has cultivated Phule Bhagawa pomegranate for export purpose on 1.20 ha. area. This farmer realized a total income of Rs. 37.20 lakh through pomegranate export to European countries in 2008-09 season, whereas, he incurred an expenditure of Rs 3.0 lakh. Apart from these examples, the innovative approach of Farmer-Scientist Forum has led to Farmer to Farmer extension in FSF has helped in reduction in cost of cultivation and increased monetary returns through value addition and marketing. These member farmers of FSCs have achieved outstanding awards at national and state level. All these findings are in line with those of *Wakle et al (1998)*, *Bellurkar et al (2003)* and *Ekale et al (2003)*.

Strategies for promoting farmers'-led extension

- * Promoting Farmers Interest Groups, Women Interest Groups, Commodity Interest Groups for strengthening Farmers'-led extension.
- * Capacity building of these organized groups for advanced agricultural production technologies.
- * MPKV model of Farmers-Scientists Forum need to be replicated on a wider base. These member farmers will serve as para extension workers in their social system.
- * Promotion of farmers participatory research and extension programmes for location specific technology development, refinement and dissemination.
- * Farmer groups to be equipped with market intelligence and Information and Communication Technology (ICT) for access to market information.

REFERENCES

1. Anderson, J.R. and G. Feder (2007). Agricultural extension. In R.E. Evenson and P. Pingali, eds. *Agricultural development: Farmers, farm production and farm markets*, vol. 3 of *Handbook of Agricultural Economics*, Amsterdam: Elsevier, 2343–2378.
2. Bellurkar, C.M.; P.K. Wakale and M.A. Gholve (2003). A study on decision making pattern and participation of rural women in animal husbandry and dairying enterprise. *Mah. J. Extn. Edn.* 22 (2): 81-85.
3. Bimer, R.; K. Davis; J. Pender, E. Nkonya; P. Anandajayasekeram; J. Ekboir; A. Mbabu; D. Spielman; D. Homa and S. Benin (2006). From best practice to best fit: A framework for analyzing agricultural advisory services worldwide. Development strategy and governance division, Discussion paper No. 39. International Food Policy Research Institute (IFPRI), Washington, DC.
4. Duraisamy, D.G. (2007). Market led extension : Emerging perspectives. In F.M.H. Kaleel, Jayagree Krishnonkutty and K. Satheesh Babu (eds). *Market led extension -dimensions and tools*. Agrotech Publishing Academy, Udaipur : 42-51.

5. Ekale, J.; D.M. Nikhade and C.M. Bellurkar (2003). Role perception of farm women in farm activities. *Mah.J.Extn.Edn.* **22** (2): 90-93.
6. Moni, M. (2004). Ushering market-led agriculture extension. Available at <http://www.i4donline.net>
7. Rivera, William M., 1997. Agricultural extension in the next decade. *European Journal of Agricultural Education and Extension*, **4** (1): 29-38
8. Samanta, R.K.(1991). Agricultural extension in changing world perspective. Uppal Publishing House, New Delhi. pp.137-141.
9. Singh, J.P.; Swanson B.E. and Singh K.M. (2006). Developing decentralized, market-driven extension system in India : The ATMA model. In : Van Den Ban A.W. and Samanta R.K. (eds) Changing role of agricultural extension in Asian Nations, B.R. Publishing Corporations, New Delhi. pp : 203-223.
8. Wakle, P.K.; V.T. Wattamwar and M.I. Khalge (1998). Utilization of different sources by farmers for seeking farm information. *Mah. J.Extn. Edn.* **17** : 299-300.
9. Zijp, W. (1995): Personal communication. Unpublished paper. The World Bank, Washington, DC.

