

## Evolving an Inclusive Extension System for Enhancing Rural Household Income

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Agriculture plays an important socio-economic role by providing livelihood opportunities to a vast majority of population. In disadvantage areas it is key for ensuring food and nutritional security, economic development and generation of employment opportunities. During the first decade of 21st Century there emerged two contrasting trends in India that the country has been increasingly recognized as a global power in key economic sectors with a consistent high economic growth and the performance of agriculture sector has been found to be dismal causing concerns for future food and nutritional security as well as household income security. This trend is very much evident in rainfed areas where agriculture is practiced done by the weaker sections operating the small farm production systems, who have also not been benefitted by the key economic reforms. Growing competition for land, water and energy is affecting our ability to produce food. Therefore, conserving natural resources, maintaining biodiversity and accelerating agricultural growth are considered to be of paramount importance in the present and future contexts to ensure sustainable and equitable food, nutrition and household income security. In this scenario present day agriculture has to go beyond mere food production to be a propellant of economic development by being market-oriented. Thus agricultural extension has to play a crucial role in ushering in such a transformation in agriculture to meet the future challenges.

The recent reforms in Indian agricultural extension systems like integrated approach, participatory planning and management, group mobilization, etc. call for major change in institutional setting (Sulaiman & Hall, 2003). These changes should eventually lead to "learning rather than command and control" as the philosophy. However, these reforms have not produced the desired effects, implying thereby that instead of search-

ing for outside solutions to typical micro-level problems in rural and agrarian India, the public extension must learn to look for such solutions inside the client systems and if required replicate the same to achieve the economics of scale. This requires that clients be viewed as active partners not just passive recipients of extension.

*Emerging Innovations in Extension :*

To meet farmers changing need for information and advisory support, extension should engage with a wide range of issues related to agriculture (Van den Ban, 2000). These include market, credit and insurance, in addition to technology and research services and making arrangements for the supply of inputs. The field of extension now needs to address a wide range of activities viz. linking farmers to markets (Neuchatel Group, 2002), reducing vulnerability and empowering the rural poor (Farrington *et al*, 2002), developing micro-enterprises (Rivera *et al*, 2001), poverty reduction and environmental conservation (Alex *et al*, 2002) and strengthening and supporting farmer organizations (Sulaiman and Hall, 2003). Over the last decade, the need for extension functionaries to reorient their skills and activities towards community mobilization, conflict management, problem solving, education and human development has been emphasized (Farrington *et al*, 1998, Sulaiman and Van den Ban, 2000).

The goal of extension has, therefore, is moving from technology dissemination to system management, building coalitions of different stakeholders, leading the innovation agenda and building new learning organizations. Public sector extension needs to make conscious efforts to learn from ongoing institutional experiments and should be restructured with the necessary skills and capacities to integrate information and expertise available in different organizations (Sulaiman and Van den Ban, 2003). Emerging extension innovations tried over

space and time mainly fall under four broad models, namely, decentralization (shifting responsibility of extension to local governments), privatization (shifting substantial or total ownership and control to the private sector), cost recovery and cost sharing, participatory and demand-driven extension (group approaches, farmer field schools and farmer consultations/participation during implementation).

The basic approach to agricultural extension in 11th Five Year Plan involved focus on extension reach to small, marginal farmers, farm women and disadvantaged groups; strengthening and upscaling new institutional mechanism with adequate funds for extension activities, dedicated manpower at different levels and infrastructure support; focusing on demand-driven and farmer-oriented training strategies; ensuring women participation in all the trainings programmes at all levels and organizing specialized training for women trainers; introducing gender budgeting in agricultural extension programmes and sensitizing all the stakeholders in gender issues; farmer-led-extension as an instrument for participatory research and knowledge management leading to build a cadre of grass-root farmer trainers, and to facilitate commodity interest groups; agripreneurs identification and training under KVKs or agri-clinics and agri-business centres recognizing the outstanding farmers through awards; provision of adequate quality extension manpower including the private service providers (agripreneurs, input dealers, NGOs, programme producers of print and mass media, etc.) to address agricultural diversification, intensification, commercialization and sustainability issues, understanding information needs of different clients (farmers, farm women, labourers, youth, etc.) through continuous capacity building to also have skills of group formation, negotiation, conflict resolution, social mobilization, management of Common Property Resources (CPRs), use of IT, documentation of success stories and replication to improve the effectiveness of the delivery system; Integrating Research-Extension-Farmer-Market linkages to be addressed by undertaking research and extension activities through the participatory technology development mode, creating a Research-Extension-Farmer and Market coordination at State level to take necessary policy initiatives to enable and establish linkages; promoting farmer organizations around the commodity and federating them at block/district/state level

and linking the economic activities and markets for collective bargaining to sustain the developmental efforts; following farming system approach explicitly by farmers' needs through an understanding of the existing farming systems to determine the research and extension agenda and, convergence of extension services between public and private sector extension service providers on Public-Private-Partnership (PPP) mode at the district, block and village levels to improve the performance of various stakeholders.

#### *Mass Media and ICT for Inclusive Extension:*

Considering the diversity of agro-ecological systems and more than 120 million farmers involved, the extension system is faced with a great diversity of needs, opportunities and prospects. Therefore, to respond successfully to the new challenges posed, greater attention will have to be paid to information-based technologies and strengthen means of dissemination to transmit the information to farm families. Effective use of mass media and ICT could be one of the possible means for bridging knowledge deficiency among the farming community at a faster rate. The use of Information Technology in extension enables the extension workers to be more effective in meeting the information needs of farmers and farm women. A dedicated TV channel on agriculture, usage of strengthened network of community radio and FM radio to focus on location-specific problems of farming community and technology transfer and strengthened Call Centres in agriculture such as Kisan Call Centres provide for problem solving in agriculture through toll-free numbers are recommended. For speedy transformation of technology based societies, information needs to be packed in digital video-based web environments for dissemination through the Village Knowledge Centres/ Information Kiosks and Digital Media Forums as well as through CDs and multimedia presentations. Information Communication Technologies (ICTs) aimed at utilization of need-based real time information for decision making and empowerment leads to development.

#### *Guiding Principles for Inclusive Extension System:*

The following guiding principles suggested by Swanson (2008) serve as tenets for evolving inclusive extension in India

- Economic efficiency;
- A careful match between the comparative advantages of organizations and the functions they per-

form;

- Enabling policy and governance environment;
- Clear spread of costs;
- Careful assessment and optimal mixing of funding and delivery mechanisms;
- Pluralistic and participatory approaches;
- Effective linkages among farmers, educators, researchers, extensionists and other stakeholders;
- Building human and social resources; and
- Sound monitoring and evaluation to project better impacts.

*Key Features of Inclusive Extension System:*

In order to meet the next generation challenges and to harness the vast opportunities, future extension systems would be evolved around the following key features:

- Responsive to the ever-changing client needs (informational, technological, capacity building/educational, social mobilization, etc.)
- Pluralism or multi-agency approach as the operating philosophy
- Technology-enabled extension methodologies (modern IT and ICT-led methods would be increasingly used in addition to conventional methods)
- Partnerships of various types (public-public, public-private, private-public and private-private) to harness the comparative advantages of different extension service providers
- Micro-strategies aimed at promoting grassroot level linkages by innovative strategies (best-fit rather than best practices approach)/innovations rather than nation-wide prescriptive strategies
- Concentrating more on what extension can do and do best - education, facilitative role more than technology transfer and input supply rather than embracing everything decided by others.

*Suggestive Model of Next Generation Agricultural Extension in India:*

In view of changing partnerships and proprietary claims, there is a need to bring system approach in extension and transfer of technology and to look for an extension model that would involve various extension agencies like KVK, Agricultural Technology Management Agency (ATMA), line departments and private

agencies, etc. in the district. This framework is based on the following premises:

- Core operating philosophy of next generation agricultural extension system will be guided by its classical manifestation, education, facilitation and empowerment (helping clients to help themselves).
- District will be the core planning and operating unit.
- Systems approach to link all extension service providers (ESP) at district level and below with innovation systems (formal and informal research systems), client systems and other support systems (inputs, credit, power, road, telecommunications, etc.).
- KVKs will be the main agencies to connect all the ESPs with other systems directly by ways of functional linkages or by facilitating regular interfaces, initial hand-holding in forging partnerships and also by referral/regulatory role for diagnostic and prescriptive services.
- Within the purview of the existing mandate, the KVKs will function as nodal extension agency. However, the KVKs will have flexibility to realign its mandated activities in line with the development niches of the district, and also its own strengths.

The model proposes KVKs as the basic platform at district level to spearhead extension on the premises suggested above. The backend support for KVKs is visualized in the form of National Agricultural Innovations and Knowledge Gateway. KVKs would customize the innovations and knowledge repository of this gateway to help the clients on a group approach (FIGs, CIGs, FOs, SHGs, etc.). KVKs would facilitate and help these groups to connect with the other ESPs. KVKs would use Knowledge Infomediaries (KnIMs), to be identified jointly by Panchayati Raj Institutions and KVKs as master trainers and KVK ambassadors to multiply and magnify the capacity building and other extension activities using Farmer School concept. KVKs would help connect National Agricultural Innovation and Knowledge Gateway to the future generations by forging active partnerships with schools in the district.

The possible strategic options for this model are

- Decentralization/devolution/democratization
- Top-down/bottom-up/convergence approach for knowledge and innovation dissemination

- Free of cost/cost sharing/full cost recovery as fiscal considerations
- Segmentation (area/client type/commodity), targeting (customizing knowledge and innovations and costing options) and positioning (differential pricing, communication, media-mix, etc.) of ESPs.

*Critical Success Factors for Next Generation Extension System in India;*

The following factors would be the corner stone of the next generation extension system in India.

- *Pluralism:* Acknowledge and integrate pluralism in extension (harmony and synergy among various ESPs).
- *Professionalism:* Move away from bureaucratic to more professional operating philosophies and systems. This include core values of the systems and people constituting these systems, professional identity, professional HRD and capacity building.
- *Pragmatism:* Ability to 'think global and act local' to consider and cater to real needs of the clients and not the greed of clients/donors.
- *Partnership:* Shift from competitor approach to strategic issue-based alliances, partnership and consortium approach.
- *Prudence:* External demands and internal responses would call for judicious and efficient use of resources to deliver the best results (outputs and outcomes).
- *Pride:* A sense of commitment, devotion, dedication, and discipline to promote pride in serving those (millions of small, marginal and landless farmers and other downtrodden sections of rural India) who strive to ensure the food security of the nation.

Other critical factors that influence the success of this market-driven extension approach include the followings:

- Helping farmers, including farm women, who have similar resources and interests, organize into producer groups within each community.
- Having access to reliable markets and market information about which crops and products have sufficient economic potential to be produced and marketed in the different agro-ecological zones within each district.
- Having access to production inputs (e.g., seeds) and training in the production and other or prod-

ucts and to meet market specifications. It should be noted that urban consumers are increasingly influenced by global food preferences. Therefore, it may be necessary to secure new varieties from international sources (e.g., private-sector companies), because these planting materials may not be readily available locally.

- Product identification and certification process (knowledge and access).
- It is important to remember that a market-driven extension approach helps farmers move incrementally toward agricultural diversification. Small-scale subsistence farm households do not stop producing the basic food crops needed for home consumption. Rather, they allocate a small amount of their land to produce a specific high-value crop (e.g., fruits or vegetables) or products of backyard poultry, honey, mushrooms, etc. and after they work out the necessary production and marketing practices. Then, they begin scaling up the production of these crops or products, based largely on profitability.

## CONCLUSION

The changing farmers' priorities from production to income has shifted the extension emphasis to help farmers to organize themselves and to link them markets. Other important roles that extension needs to play are (i) building coalitions of different stakeholders; (ii) promoting platforms for information sharing; (iii) experimenting with and learning new approaches; and (iv) acting as a 'bridging organization' that provides access to knowledge, skills and services from a wide range of organizations including research institutions.

Bringing farmers, processors, retailers and other stakeholder together to support modern agricultural practices and convergence of extension efforts especially at the district level and below would be required. Common Service Centres (CSCs) of the Department of Information Technology, Government of India and those set up by the state governments and private initiative programmes will be evolved for inclusive and broad-based development.

Empowering farmers with the right information at the right time and place is essential for improving the efficiency and viability of small and marginal holdings. Mass media, particularly the radio, television and local language newspapers will be used to play an important role in this regard.

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