

EXTENSION APPROACH FOR AGRICULTURE NEEDS RE-ORIENTATION

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Indian agriculture is passing through an era of transition. The agricultural globalization and revolution in information and communication technology have brought tremendous changes in world economic scenario. The agriculture, which is the engine of growth and development and a significant contributor to national economy, has been influenced greatly by the process of globalization. The agricultural situation has become more volatile, competitive, knowledge-led and market-oriented.

In the last 15 years, agriculture has stagnated and has not gone to an extent that it was targeted. There is a matter of great concern about imbalance of total production, national food security, household food security, the urban-rural divide and the economic access to food. The agricultural strategy in the country seeks to bridge the productivity and production gaps and sustainably improve rural income and employment opportunities including livelihood security and environmental security. The policy envisages promotion of sustainable agriculture through a regionally differentiated approach, development and transfer of technology, improvement of input use efficiency, incentives for agriculture, strengthening of infrastructure, risk management and management reforms. This calls for a system based inter-disciplinary holistic approach not only to develop ecologically sound technologies for different areas, but also to facilitate their utilization at gross root level.

Major Challenges to Agriculture

The challenges to agriculture are many. The important ones are listed here:

1. Increasing trends of hunger and poverty
2. Increasing rural-urban divide
3. Stagnation in agricultural production and productivity
4. Shrinking and degrading production resources
5. Disparity between irrigated and rain-fed areas

6. Increasing climate change and environmental pollution
7. Burgeoning unemployment and declining investment in agriculture
8. Inadequate infrastructure and institutional support and fragile linkages
9. Confusing extension services by many players

As the agriculture stands at the threshold of new century, the following questions should be asked:

- What have been achieved in agriculture?
- What imbalances and problems have arisen?
- How well the Research and Extension Systems are integrated and prepared to face the emerging situations?
- What should be done to make the agriculture commercially viable to provide additional income and employment and harness the opportunities of agricultural globalization?
- What should be the appropriate extension system to deal with the problems?

Experiences of Extension Approaches

Challenges offered by sustainability and poverty, trade fronts, WTO agreement, changing nature of agricultural technology, rapid development in information and communication technology, a changing developmental agenda of stakeholders participation and decentralization in extension field have prompted to have a re-look on the existing extension system and re-orient it with proper direction.

Organized attempts for agricultural development predate the planning era in India. Over the years, the country has tried many extension and development strategies that helped increase and enhance farm production, productivity and overall quality of human life. After the independence, first extension direction to agricultural development was **Community Development (CD) approach**. Besides land reforms, the programme tried to assure cooperative credit, improved marketing facilities, large scale labour- intensive irrigation projects and the efficient use of resources with the help of National Extension Service agency. Though the basic idea of CD programme was to bring overall development of the rural community through community participation but not many positive results were seen due to lack of conviction, commitment and expertise and the compelling situation of food shortages.

During sixties, the agricultural production situation was very critical and intensification of agriculture with the use of high yielding varieties became must and agricultural development became the sole indicator and measure of rural development. The programmes such as IADP (Intensive Agriculture District Programme), IAAP (Intensive Agriculture Area Programme), ND (National Demonstration) and HYVP (High Yielding Varieties Programme) gained momentum. At this point, the sole purpose was of increasing crop yields by using modern means of production like fertilizers, irrigation and high yielding seeds in particular. The strategy was found generally to be unsuitable for the conditions and needs of complex, diverse and risk prone agriculture. These approaches, though paid good dividend, generally failed to help especially the poor farm households and reduce inequity.

During seventies, the emphasis was broadened from agricultural development to rural development and various programmes like SFDA (Small Farmers Development Agency), MFAL (Marginal Farmers and Agricultural Labour development agency), DPAP (Drought Prone Area Programme), IRDP (Integrated Rural Development Programme) etc. were launched. Income and employment generation in agriculture and allied areas through credit and extension support was mainly emphasized. But the programmes laid substantial emphasis on participatory approach for organizing and mobilizing poor farmers to enable to take advantages of the technology and services on a continual basis.

Superimposed on TOT approach was the T & V system with emphasis on the role of extension in technology transfer to encourage utilization of research results. T & V approach was somewhat like a campaign approach and succeeded to some extent where the client's need and technology potential matched. But, usually the flow of information was one-way and the feedback was minimal. The system was found to be too narrow in its approach and not suitable for small farms and rain-fed areas, which are surrounded with so many uncertainties. In between, the ICAR launched its extension programmes namely, Operational Research Project (ORP), Krishi Vigyan Kendra (KVK) and Lab to Land (LLP). All these programmes including National Demonstration (ND) were later merged under the programme of KVK. The farming system research and extension programme was also started through KVKs. These programmes did receive some

success, but could not make much impact, particularly in ensuring people's participation. It was realized that the modern technologies did not match with the farmers' need and resources, and therefore, farmers' participation was partial in the programmes. The situation demanded an emphasis on farmers' need-based and problem-oriented technology generation with active participation of the farmers. The need for technology appraisal, refinement and transfer was felt and IVLP (Institute Village Linkages Programme) based on participatory methodology was launched in selected locations in the country. In addition, National Watershed Development Programme for Rain-fed Areas was also launched by Govt. of India in selected states with basic consideration of people's participation. Recently, National Agriculture Technology Project (NATP) is making effort to integrate the activities of public and private agencies in some selected districts under Agriculture Technology and Management Agency (ATMA) using bottom up planning approach.

At present, the extension approaches are of ad-hoc types and sporadic with set motives. The agricultural scenario is more confused. There is no proper extension direction and approach. No doubt, these programmes and approaches have resulted into wider spread of modern technologies and increase in agricultural production, but with time, rate of agricultural production has slowed down. By and large, the impact of different programmes in terms of active people's participation has not been so satisfactory. All these strategies considered farming problems essentially as 'individual' concern and never as a 'collective' issue. The individual-oriented extension and development strategy has resulted in the neglect of poor farmers and the concentration of efforts mainly on rich farmers. The approach has relied heavily on diffusion of innovation model and less on group or social action model. Contrary to the expectation, the development efforts or modern technology did not trickle down to most of the farmers at the bottom of development.

Need For New Extension Direction and Approach

Agricultural extension in India is at the crossroads. After the end of T & V system, the Department of Agriculture, Govt. of India is struggling hard to find a fresh extension direction and approach to carry forward the agricultural development on bottom up

planning. The policy environment for agricultural research and extension has changed giving rise to new challenges. A large number of private players have entered in agricultural research and extension tasks, and their numbers are still creeping up. The farming community is in a state of utter confusion and desperation about how to compete and earn more from their smallholdings in the changing scenario. There is an unprecedented demand for agricultural information from the farming community. The serious concern is now to critically look into these developments and work out an integrated extension direction and approach to cope with the situations so as to safeguard the interest of our farmers and exploit the opportunities for their fullest advantages. Here, three directions are the most important:

1. Maintaining and consolidating the gains made in agriculture and continuing to enlarge levels of potential productivity and profitability with eco-friendly technologies
2. Extending agricultural gains in integrated manner to the areas so far largely deprived on watershed basis, especially in rain-fed and dry areas, where the new farm technology has made only a limited impact.
3. Increasing emphasis on post harvest management, processing, value addition and marketing including entrepreneurship development on area basis, as the agriculture needs to be internationally competitive to take its fullest share of exports.

We have the strong research base of ICAR and University system and a large network of CD Extension system. We cannot undermine this strong research and extension base through which we have accelerated our production and achieved self-sufficiency in food front. This is the first competitive advantage that we can make use of. The Brand Identity and Brand Loyalty of the systems and the contact with the grass root level, which has been strengthened through the exemplary performance of green, blue, white and yellow revolutions are our strength. The private service providers approach by corporate sectors and NGOs, which are increasing on the cost of public research and extension systems with ulterior motive is not a happy development and it must be checked. The assumption that these services will entail a competitive environment and make the public research and extension systems more assertive is wrong. Such private service providers are that of cherry pickers i.e. they choose only the resource rich farmers who can pay for their services. With such rapid changes in agricultural scenario, we

require to maintain pace and prepare extension system to be more professional in its approach. Emerging priorities in extension are-

- Technological options and development in agricultural production
- Location specific and need based extension strategies and approaches
- Participatory extension for technology development and dissemination
- Linkages & coordination among concerned development departments
- Use of new communication channels and media support in extension
- Human resource development and management in extension organization
- The cost sharing of extension services and privatization of extension

We have a strong network of Community Development system from national to gross root levels. There is a strong need to revamp the system by providing additional manpower and introducing accountability. The reality is that the biggest proportion of the farming community is composed of small and marginal farmers with their unique resource base and related problems. The need of the hour is to utilize network of CD extension system by making it more responsive to look into multifarious needs and interests of farming community. In order to happen this, we need to answer the following questions:

- What changes should be made in current ways of extension?
- What are the impediments to change?
- How can these impediments be addressed?
- What do the extension system needs to prepare for the challenge of global world?
- How do determine these needs?
- How can extension system be strengthened and linked with research, market and other service institutions?

In changing agricultural and rural development scenario, attaining sustainable development is a great challenge. This challenge has acquired a sense of urgency and demands for strategic action to address the scenario in an integrated manner. In this context, the integration of public research, extension and client systems has assumed greater importance. The systems must work in partnership mode to become equal

partners in the process of development. The strengthening of the system has to be seen on area planning basis i.e. requirement of exports and irrigated high production zones, requirement of medium production zones, and requirement of dry, semi-arid and neglected low production zones. Each area has its own strategic requirements to maintain production system. The revamping of CD system related to infrastructure, technical human power and physical support would differ accordingly. The integration of corporate sector/NGOs support is particularly needed at first area base where exports are to be promoted. They may provide support to infrastructure development, marketing, exports, processing of farm products etc. To some extent these supports are important at second area base for post-harvest activities. At third area base, CD system with the support research system and KVK would serve the purpose.

There is no substitute to face-to-face communication, particularly when bottom up planning has become reality. Under the circumstances, the factors requiring attention at gross root level are mentioned as under:

1. Understanding rural realities:

Rural societies are very complex. They are largely heterogeneous and their gender, caste, religion and wealth define people. This complex stratification is inhibiting factor for receiving communication and process of change. The communications, which are designed without having regard to the specific interest of the various segments of heterogeneity of a rural area, do not reach many sections of the rural society. Receptivity of communication depends on the promise of gains. Poor do not always gain from the growth but rich gains from the losses of the poor as well as from their gains. The communication plan must take into account the socio-economic processes in heterogeneous rural societies for ushering change. The development process cannot negate either the question of equitable gain or the question of dignity and provision of both is essential for motivation to higher productivity. The basic strategic planning generally looks for direct correlation between input and output, whereas development is a balanced activity, which takes into account the people, their environment and created devices. Therefore, understanding of rural social system, their values and norms would help and empower the extension agency for taking appropriate initiatives to ensure people's participation in the development process.

2. Understanding Group activities and Group Dynamics:

When the people are united in groups and try to solve their problems jointly they achieve success. For most of individual, social, economic and agricultural activities, the rural society has evolved several group methods and approaches to mutually solve their problems and render help and support to each other. Such group activities exist in every rural society. There is a need to identify such group activities and understand their mutual interests as well as group dynamics for agricultural and rural development. In view of marginalizing land holdings and increasing poverty, the group approach provides strength in solving the agricultural problems and making farm business more income and employment oriented. Self Help Group (SHG) and watershed development programmes are the approaches already in existence, which emphasize the participation at grass root level through local group formation. Identification of such self-help groups and their processes need to be understood for the promotion. The extension agencies should be adequately trained on this aspect.

3. Participatory Planning for integrated development:

The development planning is for the people and, therefore, it has to be of the people and by the people. If the development efforts are to be controlled by people, it is essential that they also contribute and are fully involved in all the phases of development process. Participation means involvement in collective decision making, action and sharing of benefits. This requires changes in the attitude of extension workers. The techniques such as PRA, RRA, PLA and Agro-ecosystem Analysis are well known and popular. PRA seems to be the most popular technique to plan, monitor and evaluate programmes with active involvement of people. The major issues in participatory management are breaking the culture of silence and ignorance; mobilizing farmers and prioritizing the needs and problems; role of extension agency and their sensitivity towards local values and aspirations and ability to share the vision; promoting local initiative and deciding unit of action; and provision of conducive external environment. The extension agency should facilitate participatory planning in integrated manner taking

into account the farming business as a whole. Based on the experiences, the following points are noteworthy to participatory planning:

- Farmers have to be involved in planning process
- Farmers have to be organized and put on top of technology transfer agenda
- Farmer groups on strategic interest areas have to be prepared by imparting basic skills in communication, entrepreneurship development, management and leadership
- Extension agents have to be trained on participatory methodology
- Farmers have to be helped to form self-help groups (SHGs) and be enabled to take part in development programme implementation
- Special efforts have to be made to mobilize and organize women through education, awareness and conscientization leading to their empowerment.

The participatory task is not simple, but it is definitely sustainable. The extension system has to face their share of threats, challenges and constraints. The participatory approach needs to be cultivated and nurtured in the rural community based on rapport, trust, interpersonal relationship and democratic but structural functioning.

4. Empowering Local people and institution:

The critical issues that are important and need attention for equipping the extension personnel are empowering people for participatory development. The following points may be attended for the same:

a. Capacity building (institution development):

Participation of the farming community through grass-root institution is expected to provide a medium through which transfer of technology efforts can be channeled. If these channels are well established, they are likely to survive even after the withdrawal of the support and provide sustainability to development process. The first need for developing such institutions is to evolve people from within. The next step is to give concrete shape, establish norms and practices of management and develop leadership. The types of institutions that can be developed are Village Development Committee/Trust, Mahila Mandals, Youth Clubs, Self-Help Groups, Irrigation Management Societies, Marketing Societies etc. Experiences show that self-development stage of such institutions takes a reasonable time to stabilize. The following points need to be considered for the functioning of these institutions:

- ◆ Identifying roles and responsibilities of executives and members of groups,

- ◆ Streamlining the constitutional and functional norms of such groups/institutions and providing opportunities to all participants, specially women,
- ◆ Equipping the members with techniques of organizing and functioning of the institutions,
- ◆ Participatory decision making, accounting and financial management,
- ◆ Identifying the tasks based on benefit sharing,
- ◆ Monitoring and keeping track of actions and achievements,
- ◆ Developing leadership with changing roles and responsibilities on gender basis.
- ◆ Developing interpersonal relationship and mutual trust.
- ◆ Mobilizing internal as well as external resources.

b. Leadership development:

Time has proved that if any development programme has achieved success, it is due to emergence of local leaders. Only strong local leadership can result in wider acceptance and sustainability of a programme. Local leaders can mobilize the community better and make them participate in the development programmes. We have examples of watershed development programmes such as Relegaon-Siddhi in Ahmedabad, Maharashtra where Shri Anna Hazare emerged as the local leader. The success story of this programme is cited everywhere. Similarly, Sukhomajri watershed development programme in Chandigarh, Agha Khan Rural Support programme in Gujarat, SPEECH programme in Tamilnadu and PIDOW in Karnataka are some examples where leadership and local institutions became the backbone behind the success of these programmes. So, there is a need to understand leadership pattern and emphasize the development through these leaders. The fact is that people know each other creates opportunities for collective action and mutual assistance and for mobilizing resources on a self sustaining basis.

d. Women empowerment:

It is said that intervention with a man is intervention with an individual only, but intervention with a woman is intervention with a family and society. The challenge for development lies, primarily, in making the women a part of the mainstream development process. Having significant role in varied agricultural tasks and vast knowledge of the genetic resources, women play a crucial role as custodians of the genetic diversity and the related knowledge on the varieties and their uses for food, medicine etc. A World Bank

study indicated that if the women received the same education as men, farm yields would rise between 7 and 22 percent. Though our extension set up is perhaps the largest in the world, it is not sufficiently equipped to meet the technological needs of our rural women. Special attention is required to educate the women on all aspects of farming business, besides provision of women extension workers in the CD system to deal with.

By and large, the important domains where extension system needs to be equipped are: Transfer of technology, Bottom up planning, Participatory methodology for gender sensitization and empowerment, Technology for human resource development, Project planning and management, Methodology for entrepreneurship development, Competency in the use of information and communication technology including computer and Internet and Tools and techniques for monitoring and evaluation of developmental programmes. The requirements for affecting the change in Community Development system are:

- Streamlining roles and responsibilities of extension staff
- Training and education of extension personnel, particularly on participatory methodology and use of computer and Internet.
- Good physical facility including computer, Internet and other communication support, transport facility to extension system
- Institutional arrangement for coordination and partnership between CD personnel and other players
- Closer linkages between research and extension systems
- Frequent monitoring and evaluation of extension performance
- Wide use of mass media and information technology.

Important Suggestions

The extension function is now more challenging and knowledge based. There is no proper extension direction and approach for the same. The extension system is

required to be more aggressive in its approach and strategy not only to accelerate the transfer process for sustainable agricultural development in participatory mode, but also to provide knowledge support to post harvest practices, value addition, indigenous knowledge and practices, marketing, exports etc. The important suggestions emerged from the analysis are:

1. There is an urgent need to revive the **Community Development system** to cater the multiple needs of farming community and ensuring participatory development. According to area planning, the CD extension system should be adequately equipped in respect of additional human power on gender basis, physical facility including transport, computer etc, training and other necessary needs.
2. The role of private players should be specified and limited to certain tasks. Its role in extension should be restricted. Instead of creating confusion, we need to delineate the role and responsibility of each player and draw a demarcation line between the domains of public and private extension systems for accountability. There is a need to delineate the roles of public and private players that which one player with what role and at what level is needed.
3. Agricultural development should be based on area planning. There is an urgent need to critically examine the strategic requirements of each production area block and district wise to affect necessary reorientation and strengthening in CD extension system and infrastructure development of the area for marketing and post harvest activities keeping in view the present and future requirements..
4. Besides ICAR institutes and SAUs, the Krishi Vigyan Kendra should have close linkages with CD extension systems to provide support in agricultural development and training of extension staff.
5. The Gram Panchayat has already been empowered. The extension system should take whole village as unit for participatory planning and implementation of agricultural and developmental programmes. Within the Gram Panchayat, the group action in form of Self Help Group (SHG) needs to be promoted on different economic activities for additional income and employment generation.

6. **Farmers' Federations** combining different gram panchayats for catering the post harvest needs of agricultural products on commodity basis need to be developed and promoted.
7. Monitoring and evaluation should be an integral component of CD extension system to correct the functioning of public and private extension systems and introduce accountability.

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