

Escalation of Agricultural Extension System in India: The Evolutionary Pathway

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Agricultural extension in general terms means educating farmers and ensuring their participation in application of scientific research and research based knowledge to field situations for wider acceptance and subsequent dissemination of superior farming technologies. The field of 'extension' encompasses a wider range of communication and learning activities organized for agripreneurs including farmers, farm women and rural youth. The process of agricultural extension although started way back in 1800 B.C, it was not organized and structured worldwide until the late twentieth century. In India, Agricultural extension started with individual efforts of some philanthropists during the 1860s and moulded through situational needs, urgencies socio-politico decisions and research based remodelling in few cases.

During 1950s

- The central task of extension was to help rural families help themselves by applying crude knowledge of farming, homemaking, and family and community living.
- Notable Extension Programmes in India during the period- Community Development Programme (CDP), National Extension Service (NES).

During 1960s

- Emphasis was started laying on 'rural education'- Agricultural extension became a system of 'out-of-school education' for rural people.
- Extension personnel had the task of bringing scientific knowledge to farm families in the farms and homes. The object of the task was to improve the efficiency of agriculture.
- Notable Extension Programmes in India during the period- Integrated Agriculture Development Programme (IADP), High Yielding Variety Programme (HYVP).

During 1970s

- Extension was a service or system which assisted farm people, through educational procedures, in improving farming methods and techniques, increasing production efficiency and income, bettering their standard of living and lifting social and educational standards.
- Extension involved the conscious use of communication of information to help people form sound opinions and make good decisions.
- Notable Extension Programmes in India during the period- Krishi Vigyan Kendra (KVK), Training and Visit (T &V).

During 1980s

- Introduction of centrally sponsored rural employment generation programmes.
- Emphasis laid upon rural housing and rural infrastructure.

- Extension became a professional communication intervention deployed by an institution to induce change in voluntary behaviours with a presumed public or collective utility.

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- Notable Extension Programmes in India during the period- Integrated Rural Development Programme (IRDP), National Rural Employment Programme (NREP), Indira Awas Yojana (IAY), Jawhar Rojgar Yojana (JRY).

During 1990s

- Added thrust upon rural employment generation and self employment.
- Extension perceived as the organized exchange of information and executed as deliberate transfer of skills.
- The essence of agricultural extension was to facilitate interplay and nurture synergies within a total information system involving agricultural research, agricultural education and a vast complex of information-providing businesses.
- Notable Extension Programmes in India during the period- Employment Assurance Scheme (EAS), Jawhar Gram Samridhi Yojana (JGSY), Swarnajayanti Gram Swarajgar Yojana (SGSY), National Agricultural Technology Programme (NATP), Institute Village Linkage Programme (IVLP).

2000s onwards

- Reshaping extension into pluralistic mode.
- Added thrust upon Research-Extension linkage.
- Structured initiatives in Public-Private-Partnership (P-P-P).
- Dependence on use of Information Communication Technology (ICT) tools.
- Notable Extension Programmes in India during the period- National Agricultural Innovation Project (NAIP), Agricultural Technology Management Agency (ATMA), Kishan Call Centre (KCC), Agri-Clinic and Agri-Business Centre (ACABC)

Post independence reforms in Agricultural Extension in India

India has witnessed and experienced many changes in extension approaches before and after independence for the development of agrarian society. Before independence, only some sporadic attempts by individuals, political and social leaders and philanthropists were made in different parts of the country, the most remarkable ones being Shriniketan Project (1921) by Rabindranath Tagore, Marthandam Project (1921) by Spencers Hatch, and Firka Development scheme in Madras state (1946). These projects were locale specific and aimed at holistic rural development but gradually disappeared with time due to lack of government support and mass involvement. The projects were basically around individual philosophies towards rural development.

Immediately after independence, India faced two major challenges on food security fronts- (i) the grain bowls of west Punjab and East Bengal went to Pakistan and (ii) mass-exodus of people from across the border. The gravity of the situation compelled the Government of India to lodge a programme known as 'Grow More Food Campaign'. The first

more or less structured effort towards holistic rural development was the community development programme (1952) followed by the national extension service (1953). In the sixties, agriculture production situation was very critical and there was a felt need for intensification of agriculture with the use of high yielding varieties. Majority of the population being dependent solely upon agriculture for earning their livelihood agricultural development was the main indicator of rural as well as economic development of the country. A number of programmes, namely Integrated Agriculture Development Programme (IADP), Intensive Agriculture Area Programme (IAAP), National Demonstration (ND) and High Yielding Variety Programme (HYVP) were launched. The approach although produced immediate results, did not succeed in long run due to its failure to uplift the small and marginal farmers and in terms of uniformly reaching every pockets of the country. A programme, namely Integrated Rural Development Programme (IRDP) launched during the early eighties was more or less a broadened approach towards rural development. As far as agricultural extension in specific is concerned, the Training and Visit (T&V) system launched during the seventies was a breakthrough approach which laid major emphasis on trained field extension agents in technology transfer. The importance of disseminating the research based recommendations was in real sense for the first time realized through this approach. Using trained field staff for technology transfer was subsequently executed through the Krishi Vigyan Kendra (KVKs) project in a more systematic manner. The new approach was found to have immense potential not only in mere transfer but internalization of technologies as it encouraged education and peoples' participation. The approach with a number of modifications has been found sustainable and is under operation all over the country.

Gradual evolution of public extension strategies

The extension strategies followed by the public sector extension agencies to extend their outreach to larger number of agripreneurs evolved over time. Among the important public extension strategies witnessed since the last few decades in India, following are some notable ones:

- Multi-agency involvement and pluralistic mode of extension delivery, *through KVKs, ATMA, Central/ State government schemes, specialized programmes etc.*
- Farming system approach and Strategic Research and Extension Plan (SREP) *as implemented through the KVKs and ATMA*
- Farmer-centric extension services
- Research–extension interface and convergence
- Gender budgeting and gender mainstreaming
- Mass media and HRD support

Notable Private Extension Strategies

The private players have emerged strong and competitive with huge capital investment and manpower to extend their reach to the unreached. The following efforts taken by some private extension agencies may be exemplified as alternate extension models:

The 'Tata Kishan Sansar' (TKS) model of Tata Chemicals Ltd.

- Providing need based operation and advisory support to the farmers.

- A franchise based ‘hub and spoke’ model that provides services like remote diagnosis, soil testing, house brands for cattle feed, sprayer, seed, pesticides etc.
- There are now 32 hubs catering to 681 TKSs covering around 2.7 million farmers, in 22,000 villages of 88 rural districts of the country.

The ‘Hariyali Kishan Bazar’ model of the DCM Shriram Consolidated Ltd.

- Business model providing ‘end-to-end’ agri-business solution to the farmers.
- A Package of agri-input, extension, credit and produce-marketing.
- Operates in a chain of more than 300 rural retail stores across eight states, catering to 45, 00,000 farmers.
- Emerged as ‘rural super bazar’.
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The ‘Mahindra Krishi Vihar’ model of Mahindra and Mahindra Ltd. - ‘One stop farmer solution shop’

An innovative and successful Extension strategy of an NGO, Digital Green

- Started functioning in 2008.
- Dissemination of information to small and marginal farmers by means of ‘digital video’.
- Delivery of targeted contents those are scalable to large number of farmers.
- Produced more than 1200 such videos on diverse farming technologies and practices, disseminated by face to face contact and uploaded in their website.

Given the diversity of the country, nature of the economy and its limitations, there is a need for better co-ordination and complementary role playing among public and private agencies as well as NGOs to promote pluralism and partnership. Although in a country like India, it is hardly possible to completely bring into effect fee-based extension services, there is a need for the district level public extension organizations to raise funds through practically implacable means. Targeting and reaching the small & marginal farmers especially in the rainfed and difficult regions should be encouraged by all means possible. In technology generation front, the technologies tailor made for small and marginal farms must be given due priority. The linkage between research institutions and extension agencies has to be strengthened by supporting change and innovation management.