GLIMPSES OF AGRICULTURAL EXTENSION DEVELOPMENTS IN INDIA

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Development of agriculture is an integral part of economic prosperity. Few countries have experience sustained economic development without growth of agriculture but in India ,agriculture plays major role in economic development. Besides technological advancement ,extension plays a catalytic role in agricultural development. Farmers generally have no direct linkages with advance agricultural technology, hence there is need for massive education and extension efforts to modernize outlook of a common farmers to make him innovative, enterprising and willing to adapt readily to changing situations and technologies.

Agriculture research and extension services are main pillars of agricultural development and without local research support, agriculture will remain traditional and low yields and low productivity. Extension services are necessary to encourage farmers to adopt new technologies and efficient practices based on continuously advancing research. The researchers neither have time nor they have equipped for the job persuading villagers to opt for scientific methods. Similarly it is difficult for the farmers to visit research stations and obtain first hand information. Thus there is need of an agency to take the finding of the research to the farmers and to feedback the problems of the farmers to the research stations for solution. This gap is filled by an effective and adequate extension services.

The term extension was for the first time used in the United States of America in the first decade of this century to connote the extension of knowledge from the land Grant college to the farmers through the process of informal education. In India the term extension education and extension became more popular with beginning of community development project in 1952 and the establishment of National Extension Services in 1953.

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The term extension as an applied behavioral sciences the knowledge of which is applied to bring about the desirable changes in a human behavior usually through the various strategies and programs of changes and by applying latest scientific technological innovations.

The National Agricultural System also evolved with the establishment of agriculture department in the imperial and provincial governments. Efforts to strengthen this department continued up 'to the time of independence. Agricultural extension was one of the activities of the department and no special attention was paid to accelerate transfer of technology efforts However, some isolated attempts were made to start special rural development programmes including improvement of agriculture. Soon it was realized that sporadic and ***ad-hoc*** programmes were not be effective and that there was a need for sustainable agriculture and rural development programmes.

Efforts made during Pre-Independence period

During the pre independence era, various scattered and short lived efforts were made towards rural development in various part of the country by individual or some organizations. It was during this period .that department of agriculture come into force in June 1871. And by 1882 agriculture department in most of the provinces started functioning in the skeleton form. Recognizing the need for the new and improved method of cultivation based on agriculture research, Pusa Research Institute was established at Pusa (Bihar) in 1903 with the donations worth Rs. 5.00.000.offered by Mr. Henry Phipps of Cicago to lord Curzon.

Royal Commission on Agriculture

In fact number of reforms took place in India during this period . In order to avoid the recurrence of the famines, the famines commission were appointed from time to time. It was Royal Commission on Agriculture made very valuable recommendations (1928) which established a firm foundation for coordinated research and effective agricultural administration. The Royal commission on Agriculture was appointed in 1926 to examine and report on the condition of agricultural and rural economy in India and to make

recommendations for the improvement of agriculture and the promotion of the welfare and prosperity of rural population. An important recommendations of Royal Commission was — the creation of imperial Council Of Agricultural Research (ICAR) which was set up in 1929. The commission also emphasized the urgency of' widening the outlook of the cultivars himself so that he may became not only a better instrument of agriculture production but also a better man.

Government of India Act, 1935

With the passage of Govt of India act 1935, the subject of agriculture, land, water supply, irrigation, forest, public health and education were transferred to the provincial government.

Though the valuable work was done and useful information was obtained as result of agriculture research and attempt were made from time to time to any the result of investigations to the farmers field but the progress was very slow The bulk of new agricultural knowledge and skill remained unknown to the farmers because of lack of effective and adequate extension services.

Long before the introduction of government managed extension system at the national level in 1952,there had been a sporadic efforts in developing the rural life ,but most of the efforts were based on individual initiative and all attempts were isolated uneven and discontinuous and people participation was very limited.

Grow More Food campaign

Grow More Food campaign was launched in the country in 1947. Under this programme additional staff were provided at the district and sub divisional level. The GMF inquiry committee (1952)observed that the campaign failed to achieve the expected result due to various shortcomings in the basic strategy like very narrow and restricted scope of operation , lack of integrated approach and the short term objectives of increasing the productivity. The Committee also observed that nationwide government supported extension network as a permanent system was essential.

Community Development Programme (CDP)

Public-Sector Extension has undergone several changes since country gained independence, beginning with the Community Development Program (CDP) in *1952,* in which the focus of extension was on human and community development. A nationwide multi-purpose extension network backed with professionals became indispensable. Consequently, fifty five community development projects were started. Each Project covered 300 villages with the village level workers for a group of 10 villages. For each Project the technical person in agriculture, animal husbandry, cooperation and village industries and rural engineering were provided. The Program was based on philosophy of integrated rural development.

In 1953, the National Extension Service (NES) Program, identical to community development programme but with the less resources intensity was launched with the view to cover entire country by 1960-61. Program aimed to cover the pace of rural development, including increased employment and agricultural production by the application of scientific methods.

There was steady progression towards technology transfer within the policy framework of food security with the Intensive Agriculture District Program (IADP) started in 1961, at first, seven districts were chosen later nine were added. The main features of this programme were

(1) Posting of subject matter specialist at district and block level;

(2) Preparation of simple improved package of practices for farmers based on research findings;

(3) Intensive training of VLWs for motivating better extension efforts.

The approach envisaged was to develop and improved farm plan for each holding and to support this plan with all possible facilities so as to rapidly increase food production. In this programme the efforts were made in selected areas with the optimum conditions to produce better and quicker results in terms of increased production then the spreading of efforts and resources on a uniform basis in all the districts

The Intensive Agriculture Area Program(IAAP) in 1964-65, was based on area approach, 1084 blocks were selected from 114 districts. Two major points of difference between IADP & IAAP were that unlike the former which was farm oriented and later was crop oriented and the staff provided was on reduced scale.

The High Yielding Varieties Programme (HYYP)1966-67, the Farmers Training and Education Programme in 1966-67 and Small and Marginal Farmers Development Program(SMFDP) was also initiated in 1969-70

Training & Visit System (T&V)

In all other past extension programmes, the focus of extension was on human and community development , but there has been a steady progression toward technology transfer, within the policy framework of the introduction of the training and visit system. The transfer of technology approach through Training & Visit System (T&V), was an answer to the grave concern in Government and Planning Commission as in *irrigated* as well as rain fed areas. For this purpose, pilot project were set up with World Bank assistance in Rajasthan Canal area in Rajasthan and Chambal command area in Madhya Pradesh. As it yielded encouraging results, central government decided to introduce it in larger areas in other States by making suitable adaptations.

The Training & Visit System of extension was subsequently introduced in other states like Orissa, West Bengal, Assam and Madhya Pradesh in 1977, in Rajasthan, Bihar, Haryana and Karnataka in 1978, in Gujarat in 1979, in Kerala in 1980, in Maharashtra and Tamil Nadu in 1981, and in Andhra Pradesh in 1982. The States of Jammu & Kashmir, Uttar Pradesh, Himachal Pradesh and Punjab were covered in subsequent years. This System was operationalized in major states in the country.

The main features of this project were more emphasis on single purpose professional extension worker, regular training of extension personnel and transfer of technology through the personal contact with farmers. This concept was further strengthened through establishing

Research- Extension – Farmer linkages under the National Agriculture Extension Project (NAEP) in 1979.

This system had given the country a new vision, bringing the farm scientist and field extension functionaries closer with the sole intention of improving the economic conditions of the farming community. The agriculture extension reform through T&V system had represented a radical departure from the past practices like the commitments to the multipurpose approach, logistical supply function and many other non extension duties By the early 1990's with the completion of the third National Agricultural Extension Project (NAEP), the important contribution that the T&V extension approach had made to agricultural development were duly recognized . But it was also realized that it needed to be overhauled in meeting the technology needs of farmers in the 21st century. It was also recognized that extension should begin to broad based its programmes by utilizing the farming system approach . A realization has also dawned that issues like financial sustainability , lack of farmers participation in programme planning and the weak links with research were the serious constraints in current extension system.

Extension System of ICAR & SAUs

Agricultural extension education which was started long back with the establishment of the first Agricultural university at Pant Nagar Utter Pradesh. Frontline extension work was initiated as agriculture research system grew in ICAR and SAUs.

The Department and Directorate of Extension was established in ICAR and SAU with the objective to conduct extension research, demonstrate latest technologies, provide feedback to scientists and provide training support to State Department of Agriculture. ICAR's involvement in extension activities started with the National Demonstration Scheme initiated in 1966, since then, innovative programmes have included the operational research project (1972-73, Krishi Vigyan Kendra (1976-77), Lab to land programme (1979), All India Coordinated Research Programmes for the upliftment of Scheduled Castes (1979) and the Tribal Area Research Project (1979). From the Eight Five Year Plan (1992-97) all these programmes were merged into

KVKs and all have been 100%. funded by ICAR. At present the ICAR support Krishi Vigyan Kendras through out the country. The KVKs are mandated to train the farmers, farm women, rural youth and village extension workers on different aspect of agriculture. Other changes have been promoted by ICAR is the Institutions and village linkage programme (IVLP). The IVLP recommends problem focused, system oriented, multi disciplinary approaches capable of generating technologies that are profitable, highly sustainable, low risk and equitable in their impact among men and women.

National Agricultural Technology Project (NATP)

The current institutional framework of technology transfer, including both institutional and operational constraints, severely limits the effectiveness of public extension system to disseminate location specific technology to different socio -economic groups of farmers . Also as a result of recent policy changes that have resulted in economic liberalization , both the private sector and commercial organizations are gradually taking more responsibility for technology dissemination These dynamic situation call for systematic reforms of agriculture Technology System (ATS) ,both to strengthen linkages between research - extension -farmers and to achieve better system interaction among those agencies actively involved in technology transfer.

The World Bank assisted National Agricultural Technology Project (NATP) in which the extension component termed as innovations In Technology Dissemination (ITD) is envisaging an integrated extension delivery at district level. The purpose of the extension component (Innovations in Technology Dissemination)of NATP is to consolidate earlier investments and address specific system constrains, weaknesses and gaps that remained un-addressed by the previous research and extension projects. This extension component of the project is being pilot tested in 24 district across the participating states viz Andhra Pradesh, Bihar, Himachal pradesh, Maharastra, orissa and Punjab. Under this project new institutional arrangement is being pilot tested for technology dissemination through establishment of Agricultural Technology Management Agency (ATMA) at district level. The ATMA, a registered

society under the chairman ship of the district collector would be responsible for technology dissemination activities at the district level. It would have linkages with all departments of the government and research organizations as well as NGOs and other agencies associated with agricultural developments in the district . As a registered society, each ATMA would be able to receive and expend the project funds and enter into contracts and agreements and to maintain revolving account.

Under NATP efforts are being made to establish new extension system at the district level and down below . Major emphasis would be the transfer of technology through farmers interest groups and integrate the all extension delivery systems. Under this component it is expected to test new innovations in technology dissemination that would begin to delineate the future direction of the extension system and ,at the same time, bridge serious research – extension farmer (R-E-F) linkage problems that currently constrain the flow of appropriate technology to farmers.