

EXTENSION EDUCATION FOR NATIONAL GROWTH

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On this occasion first of all I take this opportunity to express my gratitude to the organizers of congress, learned-nationally and inter-nationally reputed scientists present over here and those who contributed for development of roots of extension education in the country under the stalwart leadership of Dr. M. N. Singh (New Delhi), Dr. O. P Dahma (M. P.), Dr. Kripal Singh (Punjab), Dr. T.S.Sohal (Punjab), Dr. Sharma (Haryana), Dr. Trivedi (Bihar), Dr. Bhomik (W. B.), Dr. Ray (W. B.), Dr. Jalihal (Karnataka), Dr. Mishra (Rajasthan), Dr. Dwarika Nath (Thailandu), Dr. A. V. Reddy (A. P.), Dr. Chitambar, Dr. Roshan Singh (U. P.), Dr. R. P. Singh and many others. I was also associate to these eminent extension professionals at that developing stage of extension education. Establishment of Departments in Institutes and Agricultural Universities and later on establishment of National Institute of Agricultural Extension Management proved a great boon in laying down the foundation of effective extension education system in the country. In the beginning, there was fierce interaction between people drawn from different disciplines to build the extension education course curriculum. The advantages of which are being realized now.

1. THE CONGRESS COVERS FOUR MAIN THEMES :

- ❖ Participatory Approaches for Management of Community Resources for Sustainable Rural Development.
- ❖ Agricultural Marketing Extension in relation to WTO and Globalisation.
- ❖ National Agricultural Extension System - Emerging Challenges in relation to Information and Communication Technology.
- ❖ Gender Issue in Agriculture and Rural Development.

The topic and themes are quite relevant with changing world agri. Extension scenario. All the projects and programme are being covered on participatory management approach for integrated development as per local needs. The whole world is becoming one market and thus, there is enormous pressure on us too to tune ourselves accordingly. Lot of experiments is going on to reshape country's agricultural extension system and importance of information technology in agricultural development has already assumed great significance. Gender sensitisation and involvement is another important issue before the planners, administration and academicians. I hope all these issues will be dwelt upon in detail in the congress.

2. PARTICIPATORY MANAGEMENT :

We inherited bureaucratic set-up of management not much suited to democratic set-up adopted by India in 1947. Agricultural extension in India is trying to find a fresh direction and

Former Director, Directorate of Ext., C.S.A.U.A.&T. Kanpur had delivered key note address in inaugural session of 1st National Extension Education Congress held from 12-14 Sept. 2003 Dr. B.R.A. University, Agra (U.P.).

approach after the end of T & V System a decade ago. The nature of Indian agriculture has become more complex as new opportunities and threats have risen for trade in international market joining older concern of supporting the rural economy. The public sector, including both agricultural research and extension organizations, has also seen the emergence of new imperatives such as cost recovery, decentralization, pluralistic funding and privatisation.

Post T & V period saw states introducing decentralization, contracting NGO's adoption of group approach, formation of group approach, formation of ATMA (Agricultural Technology Management Agency). Over the last decade, there has been an increasing realization of the importance of tasks such as community mobilization, skill development and participatory extension management. Extension is including more areas under its agenda like markets, credit, insurance in addition to technology and input management.

At the grass root level SHGs have started to work effectively. Still the decisions for SHGs are taken at top level. Conceptual clarity is still not there thus, the focus is concentrated only on savings and deposits in banks and not much work has been done for initiating income-generating activities for women. The concept of Farmers Field School is also being grounded. In this, few SHGs are identified and its representatives form a FFS and these schools are linked to development department and / or KVKs and SAUs. The weaknesses of linkages have surfaced between SAUs - KVKs - FFSs.

Now the time is ripe to link KVKs/KGKs to Farmers Fields Schools and plan development of linkages with markets. Each agricultural University should have monitoring and evaluation extension cell which is lacking at the moment. Linkages of ICAR institutes even at local level need to be strengthened. The inter-institutional linkage viz. SAU-ICAR institutes is also not so strong so that mutual benefits could be harnessed. NATP initiatives and Diversified Agricultural Support Projects in U.P. have definitely enhanced the interaction and linkage with the farmers. Farmer Scientist interaction programmes have also led to facilitate more frequent linkages for technology transfer. Livestock owners and orchardists still not in close touch with the SAUs/ Institutes as compared to crop growers.

3. AGRICULTURE EXTENSION SYSTEM :

1. The National Commission on Agriculture referred to extension as an informal out-of-school education and services for the farmers and others engaged in farm production directly or indirectly to help and motivate them to adopt improved practices in production, management, conservation and marketing. The commission further stated that the agricultural extension is not only imparting knowledge and securing adoption of improved practices, but also aims at changing the outlook of the farmer so that he will be receptive to and on his own continuously seek means of improving his farm occupation, home and family life as a whole.
2. The above clarification brings home the need to assess the present scenario and to take stock of the future needs. The present system of extension activities confines to the farmer activities, in production and management. The agriculture production in India has increased tremendously posing problems of storage and distribution. The food grain production has increased to such a level that we are in a position to export. Wheat, rice, fruits & vegetables besides traditional export commodities such as spices, tea, chashewnut etc.

The farmers are given counselling and other services on fertilizer, seed, plant protection, agricultural implements and improved cultivation practices. They are also advised and supported on agricultural credit and post harvest technologies. Agriculture Extension has definitely helped the country to become surplus in food production. But with the globalisation as stated earlier the extension work needs to concentrate on the later part of extension, i.e. on conservation and marketing. This indicates the necessity to give greater emphasis on imparting and orienting the farmers to undertake production on the basis of the market requirements and also equipping them with the knowledge, skill and facilities to conserve the products.

The agriculture marketing requirements need to be told and understood by the farming community. Some of the areas which needs this exposure are:

1. Post harvest management
 - (i) Preservation of quality, cleaning.
 - (ii) Grading, standardization.
 - (iii) Value addition.
 - (iv) Processing and Storage.
2. Formation of production cum marketing SHGs/Farmer schools.
3. Crop Insurance of National Agriculture Insurance Scheme.
4. Cultivation of high value farm products-utilizing the available resources, concentrate on high value farm products.
5. Better return to farmers - possible when products are marketed properly.
6. Production of Export Potential items, by utilizing the latest market information. It is necessary to identify crops, which have immediate national and international market potential. This involves three areas, such as (1) Type of crops, (2) Identification of markets and their peculiarities like seasonal requirements etc., (3) Information about credible marketing/export agencies.
7. Encouraging production of grain varieties, which have a sustainable price like basmati rice and durum wheat and also aromatic and medicinal plants.
8. Vigilant use of high yielding varieties seeds and cautious replacement of local variety.
9. Emphasize on maintaining quality, grading standards for different countries/regions, for establishing credibility in the national and international markets.

The above new areas if brought home to the farmers through the extension in participation of different stakeholders in extension system. The extension models like IVLP (Institution Village Linkage Programme), ATIC (Agril. Technology Information Centre), ATMA (Agricultural Technology Management Agency), SREP (Strategic Research Extension Plans) etc. Inherited wider objectives and included other components also besides covering transfer of technology which is mostly understood as the main function of extension education. Recently, some other models like 'Interdependence model has emerged which gives wider perspective to extension including generation, diffusion and use of new technology. The agricultural extension of the country is now looking beyond technology transfer to :-

- ❖ Adoption of farming system and farmer participatory approach.
- ❖ Enabling problem-solving skills in farmers and encouraging private sector involvement in extension.

- ❖ Public funds utilization for private extension on pilot basis.
- ❖ Cost recovery and co-financing of extension via farmers organizations.
- ❖ Reduction in the number of village level workers and substituting by para extension workers.
- ❖ Single window concept like ATIC and ATMA at institution and district level.
- ❖ Introduction of SREP.
- ❖ More focus on market led extension.
- ❖ Higher use of information technology.
- ❖ Opening wider opportunity for farmwomen.
- ❖ More frequent farmer scientists inter faces.

4. EXTENSION ISSUES IN MARKETING :

The agricultural economy of the country is undergoing gradual change, primarily under the influences of external variables of which two seems to be relatively more important :-

- (1) Changing pattern and diversification of consumer demand and
- (2) The impact of these variables on Indian agriculture will intensify and gather further momentum. It is time that our agriculture aligns itself with this change and shifts to focus from "Supply driven" to "Demand driven market". This would also mean that the farmers will have to produce as per the needs of the market and mismatches, if any, between the demand and supply will severely limit his marketing opportunities. These demand-supply imbalances at the regional, national and international levels will also expose the Indian farmer to greater price volatility and at times also limit his income/profit opportunities. The demand-supply distortions have already become visible within the country in major crops like wheat and rice. Similar distortions in fresh produce have also been observed at different market levels from time to time. In addition to demand-supply imbalances, the agricultural markets are distorted due to lack of market integration across space and time.

Extension issues marketing may be summarized as under :-

- (a) **Product Planning**—Even for small farmers, the concept of product planning i.e. the careful selection of the crops and varieties to be grown with market ability in mind is an important starting point. Providing this basic advice to the farmers is very essential to enable them to withstand the competition in the market. The extension personnel's need to be updated on product planning.
- (b) **Market Linkage**—The farmers have to be educated about direct marketing, Government price support scheme, selling at nearby rural periodic market, contract marketing arrangements with processors, wholesale traders or other bulk buyers.
- (c) **Group Action**—The individual marketable surplus being small in quantity and uneconomic to take to longer distance for better prices, it is necessary that the informal groups of self-help groups are promoted to market the produce. These self-help groups can be educated on product planning so that the similar variety or the similar quality can be produced by all the members of group and would improve marketability of the product as well as bargaining power of the farmers.

- (d) **Direct Marketing**—Considering the successful running of Apni Mandis in Punjab and Haryana, Rythu Bazaar in Andhra Pradesh and Uzaver Santhaigal in Tamilnadu, it is necessary that the farmers are educated about the benefits of direct marketing (retailing), especially in respect of perishables. The farmers organization or groups could set up such direct markets and provide consumers different products at prices profitable to the farmers and the same time cheaper than the city markets to the consumers.
- (e) **Marketing Information**—At the informal level farmer needs information about the marketing practices stipulated under different legal provisions to protect his interests.
- (f) **Improved Market Practices**—Farmers need education of improved harvesting methods, standardization and grading, improved packaging and handling, proper storage methods etc. for profitable marketing of his produce. Extension system needs to be updated.
- (g) **Processing and Value Addition**—Farmers need to be educated of various issues leading to value addition through primary processing or other tips, which, if followed, can secure better prices for him in the background of local realities.
- (h) **Problem Solving Arrangements**—The farmers themselves need to be oriented to certain problem solving methods. For example, owing to smaller quantity (which makes it uneconomic) to carry to the nearby assembling market on his own, farmers can be advised to buy a common transport such as cycle and carry the produce turn-by-turn to the nearby assembly markets to get better price without involving any transport cost on regular basis.
- (i) **Marketing Capacity Building**—As the market for agricultural produce lies more in the countryside, educating the farmers in solving their marketing problems through capacity building to take marketing decisions for their own interest essential.

5. TRADE INTELLIGENCE :

The first thing needed to adjust to trade is the information on various aspects related to trade. This includes information about potential markets, potential competitors, weakness and strength of competitors, market behaviour under current supply and demand prospects. This kind of information needs to be compiled, published and supplied to extension personnel's for all potentially tradable farm commodities. This would give one time information about the commodities.

As the international price and trade scenario is very volatile, there is a need to constantly monitor and forecast global prices and pass on this information to the extension system for further dissemination to farmers.

6. INFORMATION ON TRADE AGREEMENTS :

Implementation of new international trade agreement GATT and formation of WTO have caused lot of apprehensions and concerns in the country. Debate is still raging on the implication of this for Indian agriculture. Even 5-6 years after the agreement we could not fully explain to our farmers what are the various provisions, obligations and consequences of this agreement. This leaves lot of room for misinformation and politicisation of issues causing diversion from the

hard facts. Extension personnel should be thoroughly trained in various trade agreements and subsequent changes in this to provide 'Correct' information about such agreements to farmers. By creating proper awareness, extension agencies should prepare farming community to face the changing world courageously.

7. IMPORTANCE OF PATENTING :

WTO agreement calls for protection of intellectual property and lay emphasis on granting patenting rights. This is posing serious challenge to traditional knowledge and our rich biodiversity. Extension system should help in systemic documentation and recording of traditional knowledge, bio-resources and their uses. This would help village community to claim ownership right and can be used to prevent the growing practice of private claims particularly by the individuals and bodies outside the country.

To use trade as an engine of growth, orientation of extension system has to be changed. They should be supplied technology packages that meet demands in various export markets. This would require effective interface among numerous agencies representing research, trade, industry and producers.

Export now has to meet sanitary/photo sanitary, quality and several other specifications. Farmers need to be educated about CODEX and HACCP standards, pesticide residues, hygienic handling and processing etc.

8. PROVIDING FEEDBACK TO SYSTEM :

Extension system should also provide feedback on how the impact of trade is perceived at grassroots level. What kind of technological improvements and policy actions are required to help the clients to smoothly adjust to trade?

9. PROMOTING E-AGRICULTURE:

Trade and commerce are becoming increasingly dependent on Internet. Buyers and sellers located at distant places interact with each other through Internet to work out business possibilities. Extension personnel's should have access to Internet and should be provided with addresses of concerned sites to explore the possibilities of contracts between buyers and client group of farmers. This may look too elite at the moment, but, it seems, future extension agents have to use Internet and E - agriculture as a major tool in their sphere of work.

10. MARKETING EXTENSION, TRAINING AND RESEARCH :

Multilevel Approach—In order to strengthen and develop agricultural marketing system in the country, efforts in the area of training and extension have to be made at three levels. At policy level, it is necessary to formulate an effective policy on agricultural marketing under which various components of marketing programmes agricultural marketing under which various components of marketing programmes and activities can be integrated and coordinated. At managerial level, the managerial and technical capabilities of those technical institutions involved in the implementation of the marketing policy needs to be improved to enable to work to be carried out more efficiently and economically. At farm level, marketing policies and programmes should assist farmers in marketing their produce, purchase their inputs and raise their incomes.

In India, although at village and farm level agricultural production extension services exist but marketing extension work designed to benefit farmers and other market functionaries does not exist. Marketing Extension has not been accorded due importance it deserves in the light of

shifting agricultural policies towards sound marketing system. Consequently, overwhelming number of States do not have even separate marketing extension cell to undertake regular extension activities. In the absence emphasis on marketing extension, technology transfer in the field of agricultural marketing has been sluggish.

A micro level study for every district is required to be undertaken with regard to research, training and extension requirements of crops grown and the markets served by various agricultural products grown. The rural periodic markets and wholesale assembling markets where farmers visit frequently need to be provided with extension units to undertake regular activity to educate farmers in various agricultural marketing issues.

11. INFORMATION TECHNOLOGIES :

Agricultural produce marketing requires connectivity between the market and exporter/ grower/traders, industry consumers, through wide area network (WAN) o National and International linkages in order to provide day-to-day information with regard to commodity arrivals and prevailing rates etc., to provide links for online International Market Information; to provide export-related documentation, to inform about the latest research in agricultural marketing, packaging/storage etc. related information and to provide linkage/connectivity with the World Trade Centre (WTC), APEDA, NIAM, NBB, DNH, IIP, State Agricultural Marketing Boards and Universities.

Revolutions are taking place day to day in the field of information technology. The world is moving fast with these developments. "Agricultural Help Line", "E-Chaupal", "Video-Conferencing" etc. are the new initiatives keeping people abreast with latest developments. Many private companies have taken lead to make available such facilities to the remotest places mainly for surveillance of disease and insect outbreaks and also to monitor specific products being continuously eyed by private purchaser at cheaper rates and supply to other parts for financial gains. It is heartening to realize that even semi-literate people are able to handle computer software. IIT Kanpur has come up with 'Info theta' and experimenting its utility in villages. But there is need for development of agriculture information services, content and systems. Communication and dialogue mechanism for promoting dialogue between farmers and extension-research personnel; roles and responsibilities and partnership among different partners involved in agricultural extension and development of institutional and farmer's capacity and linkages for sustainability and adaptability are essential.

To facilitate private agencies to undertake extension programmes on regular basis for the country as a whole, a 24 hours TV Kisan Channel on Doordarshan is necessary. There are 75 channels operated by Doordarshan, out of this one channel should be devoted exclusively to the farmers service. The Kisan Channel would be best visual media to educate farmers by public as well as private agencies for both agricultural as well as marketing extension service.

12. GENDER CONCERNS :

Gender issues continue to be leisurely addressed in parliament, assemblies, administration and local institutions. Its concerns need to be main streamed in agricultural extension. Public extension systems, which disseminate new technology and information, are still largely male dominated. Women farmers have been mostly neglected in extension efforts. The government initiatives are required for

- (1) Extension policy reorientation that explicitly recognizes farmwomen as agricultural extension clientele.
- (2) Training of men and women extension staff on women's role in agriculture.
- (3) Training of women on decision making in farm and home management.
- (4) Training of women farmers in agricultural marketing particularly with post harvest processing, on farm value addition and market requirements.

Number of female agricultural extension workers should also be increased for ensuring greater involvement of women. Women should also be given to play important role in various committees so as to influence policy decisions. The latest technological developments have brought in its wake demands for new skills and know how. The women are in need to take up income generating activities. Developing technologies to reduce drudgery on farm and the home front can help women save energy and time and pay attention to there personal care, interact with government and extension agents and participate in social, community and extension activities.

Some initiatives recently taken by Hon'ble Minister of Agriculture, Govt. of India Sri Raj Nath Singh will prove milestones in strengthening extension efforts in the country :

- (a) Persuading state governments for faster establishment of KVKs in each district of the country.
- (b) Bringing down interest rate at par with industry on farmers advances & loans.
- (c) Insurance of agricultural product price and also crop insurance, almost parallel to industry.
- (d) Pursuing cause of the country in world market on following fronts in Can-Cun Summit.
 - ❖ Minimizing trade restrictions on movement of products from one country to other.
 - ❖ Reduction in heavy subsidies on production and export granted in developed countries enabling our agricultural products to compete.
 - ❖ Issues related to intellectual property and patenting of agricultural products.

I once again thank the organizers of the Congress on Extension Education for National Growth for giving me this opportunity and also participants for patient listening.

– Jai Hind

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