

# Major Recommendations

5th National Extension Education Congress-2009

5-7 March, 2009

The 5th National Extension Education Congress-2009 on Extension Perspective in Changing Agri-rural Environment has been organized by the Society of Extension Education, Agra, jointly with Zonal Project Directorate (ICAR), Kanpur and CS Azad University of Agriculture & Technology, Kanpur. The theme of the Congress as 'Extension Perspective in Changing Agri-rural Environment' is extremely timely in view of the emerging rapid changing scenario of agriculture in the country and in the light of globalization and liberalization of agricultural economy. The important sub-themes of the Congress are (i) sectoral, spatial and overtime changes, (ii) effect of rural migration and urbanization, (iii) issues related to environmental sustainability and (iv) need for innovative methodologies of extension education for developing sustainable approaches and models. Besides the lead presentations by the eminent speakers, there were more than 400 papers received from the delegates across the country including various international organizations.

The Congress was inaugurated by **Dr. Mangala Rai**, Secretary (GOI) Department of Agricultural Research and Education, and Director General, Indian Council of Agricultural Research; **Guest of Honour Dr. H. P. Singh**, Dy. Director General (Horticulture), Indian Council of Agricultural Research; and presided over by **Dr. R.P. Singh**, Former, VC, MPUAT & President, Society of Extension Education, Agra. The Technical Programme of the Congress was divided into seven Technical Sessions including keynote addresses by **Dr. P. Das**, Former Dy. Director General (Agricultural Extension) on "*Extension Perspective In Changing Agri-Rural Environment*"; and **Dr. Ramesh Chand**, National Professor (Agricultural Economics, ICAR) on '*Sectoral and Spatial changes in Agri-Rural Environment*' in Technical Session I. Three Technical Sessions on presentation of lead papers were held which included presentations by **Dr. C. Prasad**, Former DDG (AE), ICAR on '*Extension education perspectives in changing agriculture scenario*'; **Dr. Baldeo Singh**, Joint Director Extension, IARI on '*Partnership in agricultural extension: Needed paradigm shift*'; **Dr. B.P. Sinha**, Former Professor & Head,

IARI on *'An Innovative Approach to Field-Extension – Paliganj Experience'*; **Dr. Prabhu Kumar**, Zonal Coordinator (Bangalore) on *'Strategies for Developing Sustainable Approaches And Models Through Krishi Vigyan Kendra System'*; **Dr. G. Trivedi**, Former Vice Chancellor, RAU, Samastipur (Bihar) on *'Orienting extension education to the new challenges'*; **Dr. D.P. Singh**, Former Vice Chancellor, JNKVV on *'Strategies to Develop Sustainable Approaches and Integrated Farming System Models For Increasing Agricultural Production, Productivity And Income Of Farming Community With Special Reference To Central India'*; **Dr. R.C. Srivastava**, Director, CARI, Port Blair on *'Technological innovation and extension approach for Island ecosystem'*; and **Dr. K. Narayana Gowda**, Project Coordinator, DBT-RBC, UAS, Bangalore on *'Rebuilding the Confidence of Farmers - Experiences of an Innovative Extension Project'*; **Dr P. N.Kalla**, Professor of Agriculture Extension, RAU, Bikaner (Jaipur Campus) on *'Agricultural Extension and Rural Environment: Focus on Water Resource'* Besides, three important lead paper presentations were made by **Dr. A. K. Singh**, Zonal Coordinator (ICAR), Kanpur on *'Future extension perspective in India'*, **Dr Daulat Singh**, Former Director Extension, CSAUA&T, Kanpur on *'Redesigning Extension Strategies and Policies for Sustainable Growth'* and **Dr R.P. Singh**, President of the Society on " Issues and emerging challenges of agricultural marketing extension and export policy".

**Dr. V.V. Sadamate**, Adviser Agriculture, Planning Commission, Govt. of India was the Chief Guest of the valedictory session which was chaired by Dr. P. Das, Former DDG (AE), ICAR, New Delhi. Dr. A.K. Singh, Organizing Secretary presented major recommendations of the congress. The society conferred Life Time Achievement Award to four distinguished professionals and SEE Fellow Award to seven professionals along with conferment of Best Extension Professional Award, Best KVK Professional Award and Ganga Singh Chauhan Memorial Award.

In the light of spatial and sectoral changes in agri-rural environment ,adequate evidences are available to suggest that agricultural growth rate, currently recovered from deceleration, can be further boosted up if appropriate extension policies and strategies are adopted. Adequate attention needs to be paid to agriculture sector for promoting inclusive growth. Studies conducted on comparing the most productive and least productive districts across the country,

indicate large gaps in the productivity ranges; fertilizers' use ranged from 2 to 398 kg/ha and irrigation efficiency ranged from 5% to 98%.

### **The recommendations of the Congress emerged out are as follows:**

1. The fast changing socio-economic environment demands much higher professionalism in agricultural extension first to understand the very basic dynamics of the changes including the impact of fast developing infrastructure in the agrarian sector, opening up of newer opportunities including information communication technologies.
2. There is need to move away from unidirectional single technology package approach in all the agricultural situations to environment specific technology package approach based on the appropriateness of different micro farming situations. For example, one package may be suitable for 10 villages whereas one village may require 10 different types of packages based on the diversity of the micro farming situations.
3. Moving away from adoption based research to contemporary research in agricultural extension is essential for developing modules and capsules on extension principles, methodologies and extension tools in diverse agro-ecology, agro-climatic and system/situation perspective. There is need for re-envisioning research on extension approaches including appropriate training modules, capsules/modules of extension practices for the emerging areas like implication of WTO, preparedness of extension experts and farmers in dealing with issues related to intellectual property rights and availability of seeds, hybrids and other inputs in IPR regime, use of transgenics, bio-regulation including bio-security, etc.
4. There is need to update the extension syllabus incorporating methodologies of analysis of emerging scenario in agriculture and its characterization and likely future perspectives, and appropriate methodologies and techniques for modulation and encapsulation aiming at increased professionalism as extension practitioner for equipping the farmers to cope up with the changing environment. Extension professionals need to integrate all aspects

of technology generation–refinement and dissemination. For integration of knowledge, talented experts are required and extension professionals need to possess high degree of skills in analysis, diagnostics, communication and motivation. It is high time that extension professionals acquire the skill to work in teams cutting across disciplines and breaking boundaries to help the farmers in integrated manner.

5. In parallel to the requirement of tackling the problems of incidence of such diseases common, across species of plants or even plants and animals; there is need for horizontal integration of common extension principles, methodologies and practices for the common problems for diffusion and adoption of technologies related to field crops, horticultural crops, livestock including dairying and fisheries etc. in system perspective. Such horizontal integration further needs to be vertically grafted in terms of specific details based on the requirement of the target group in agriculture, horticulture, livestock or fisheries.
6. In the light of rapid sectoral and spatial changes in agri-rural environment, the adaptability of the farmers is severely restricted to natural forces in the absence of complimentary extension support system. The changes in extension methodologies and approaches overtime have been a few and far between, attention being on only newer technologies but not on newer environment/systems/situations. Today, farmers need to be linked with the business, system, research institutions, public administration, other farmers, open market/global scale and unlimited partners (known and unknown). The research-extension linkages need to be viewed in terms of research-extension-farmer-civil society linkages. For example, market-led extension would demand analysis of marketing system, working of producers' associations, product information guide, product production procedure, product production reporting procedures, product production certification procedures, etc. There is need for full supply chain and value chain linkages. The farmer centered, demand driven and responsive extension approaches need very clear task and objective clarity. It also needs flexibility in operation (planning, programming and funding), creating plurality of knowledge providers, and must decide

the portfolio of activities of each of the stake holders in situation/system specific appropriate institutional arrangements.

7. Agricultural research is carried out as basic or fundamental, strategic, applied and adaptive. The basic research provides basic understanding which is a pre-requisite knowledge to be incorporated for strategic research. Further, research is taken up with the application of such knowledge for development of system, situation and commodity specific modules and capsule for agricultural extension education and services. The aim of adaptive research is to assess and refine by making selection of the modules and capsule to be precisely effective in order to facilitate such technological change in a given social system. For example, working out adult learning principles is basic research, incorporating these principles in Experiential Learning Cycle is strategic research, designing a training session based on Experiential Learning Cycle is applied research and evaluation of the training session in terms of its relevancy and effectiveness in different agricultural topics is adaptive research. Similarly, identifying types of capability of learning is basic research, arrangement of such capabilities in hierarchical fashion is a strategic research (Bloom's Taxonomy), and designing different training sessions based on the needed capability of learning objective is applied research. Characterization of complexity, diversity and risk proneness of agriculture in different agro-ecological regions is basic research. Identifying instructional materials needs to different complex, diverse and risk prone agriculture is strategic research. Determining models for sequencing competency development for quality production programmes is basic research. Establishing the relationship between extension education, extension service and increased productivity is another basic research.
8. There is need for research in micro level institutional restructuring, management of extension programme, models of research-extension-civil society linkage, capacity building of farmers, models of empowerment - technological, economic and social, and mainstreaming gender implication in agriculture and overall sustainability of agricultural extension as a discipline. Generation of concept and methodology and its application will have to be location specific with appropriate optimization and input-output/outcome/impact to agro-ecological or social circumstances for its use by the planners,

policy makers and all those engaged in the task of promotion of productive, stable, sustainable, equitable and profitable farming.

- 9.** Knowledge drive development; we used to think of capital as the scarce factor in production and transfer of capital as the key instrument of growth. Knowledge is now an important factor in development and this trend is set to intensify. Knowledge accumulation and application will drive development processes and will create unprecedented opportunities for growth and poverty reduction. The web is the largest and richest agricultural information system. Discovery of W3, WWW (World Wide Web) in CERN (*High Energy Physics Lab*) Lab, Geneva, Switzerland, Hyper Text Transfer Protocol (HTTP) and Hypertext Mark-up Language (HTML) have opened up new opportunities for use of information communication technology in Agricultural Extension. The Centre for Development of Advanced Computing, Ministry of Communications and Information Technology, has developed language computing technology for Assamese, Gujarati, Hindi, Kannada, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil, Telugu and Urdu; and recently released on Bodo, Dogri, Maithili and Nepali on 21st February, 2009. Research is needed for creation and validation of both static and dynamic contents including expert knowledge system on different topics on system/situation perspectives. Research is also needed for development of methodology for developing awareness, capacity building, content requirement, creativity, communication and networking, and organizing institutional arrangement for resources.
- 10.** In the age of WTO, the extension methodology needs to be worked out for dissemination of practices based on various standards under Codex Alimentarius commission like GAP (Good Agricultural Practices), like Traceability analysis, Record keeping, History of varieties and rootstocks, Site history and site management, Soil and substrate management, Fertilizer use, Irrigation, Crop protection Harvesting, Post-Harvesting treatments, Waste and pollution management, Recycling and re-use, Worker health, Safety and welfare, Environmental Issues, Complaint form, Internal Audits, and National and International Legislation.

Extension research needs to be more broad-based and holistic both in content and scope, much beyond determining impact of socio-economic factors for transfer of technology of post mortem in nature. The scientists engaged in the task of research in agricultural extension need to develop a more proactive approach in generating knowledge/ information of concept, approach and methodology in facilitating relevancy and effectiveness of extension education programmes and services.

- 11) There is a need to shift from conventional approach of Transfer of Technology (TOT) to multi-stakeholders' perspective with major focus on farmers' groups, associations and the related civil society organizations. The prevailing models of Farmers-CSOs/FIGs/FOs-Market operating independently need proper documentation of their structure, function, process, outcome, etc. The success stories of different approaches of extension education and farmers' empowerment utilized by small self help groups merits upscaling to a well-strengthened Farmers' Associations/Organizations having appropriate networking with the other knowledge delivering institutions. The domain of researches in extension education ought to be broadened by including the components like management and behavioural principles applicable in extension education, promoting the rural entrepreneurship, empowerment of farmers, farm women, youth, etc; and accordingly the course curricula of extension education needs changes and refinement.
- 12) There are successful experiences of different models of SHGs - Financial institution linkages. There could be three potential, viable and situation-specific linkages models which may include direct linkage of financial institution with the SHGs concerned; intermediary role of VOs/NGOs in linking the financial institution with the self help group and facilitative role of the VOs/NGOs in linking the farmers' group with such institutions. Each of these models should be tested in various situations and replicated in the similar socio-cultural and organizational domain.
- 13) It was felt that it is beyond the capability of any extension system to come out with a unified model to resolve the multiple problems of complex and diversified agricultural system prevailing in the country like India. It is recognized that approaches like farmers' participation, institutional linkages, system management approach, policy reforms,

capacity building, empowerment of farmers and farm women, use of media and information technology and a host of other farming situation specific approaches may go a long way in making our extension system more vibrant. The agricultural extension strategy initiated to achieve self-reliance in agriculture needs re-orientation and market centered. Such a shift in extension strategy is inevitable owing mainly to strong forward backward linkage with agricultural marketing and agricultural production. Changes in agro-processing and value addition for agricultural products, potentials for diversification and new areas in agricultural production are some of the workable interventions.

- 14) It was realized to have convergence of various sub-systems of agricultural development for bringing out maximum outcome from the efforts of extension education. The models and approaches being pursued by various development departments need to be converged in order to harness maximum dividends from each other.



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