National Workshop

on

ROLE OF INFORMATION COMMUNICATION TECHNOLOGY IN TAKING SCIENTIFIC KNOWLEDGE/TECHNOLOGIES TO THE END USERS

New Delhi, 10-11 January 2005

RECOMMENDATIONS

Organized by

TRUST FOR ADVANCEMENT OF AGRICULTURAL SCIENCES
NATIONAL ACADEMY OF AGRICULTURAL SCIENCES
INDIAN SOCIETY OF AGRUCULTURAL STATISTICS
ASIA-PACIFIC ASSOCIATION OF AGRICULTURAL RESEARCH INSTITUTIONS
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Progress Through Science

ISAS

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Role of Information Communication Technology in Taking Scientific Knowledge/Technologies to the End Users

RECOMMENDATIONS

In order to transform agriculture into an information driven, modern and competitive sector, the role of Information Communication Technology (ICT) cannot be over emphasized. The people working in the agriculture sector are least equipped with proper tools to deal with rapidly changing agricultural production scenario and international competitive environment. Also, the existing Transfer of Technology mechanisms and extension programmes, mostly run by the government departments, are slow and in many cases ineffective as bridges between the research community and the farmers. This is partly due to inadequate use of new means of information dissemination under these programmes. To partially fill the gap, several private initiatives have come up, but the primary motivation behind these initiatives is facilitation of commercial transactions in rural areas rather than knowledge dissemination. The existing "technology divide" can be addressed effectively through extensive use of ICT, especially when the present extension system is no longer relevant and able to meet the increasing demands of our farming community.

ICAR can play a vital role for the application of ICT through its wide network of Krishi Vigyan Kendras (KVKs). The KVKs are responsible for vocational training, on-farm research and demonstration of the improved technologies. Through these KVK's rural youths are trained in the areas of poultry, dairying, piggery, bee-keeping, fisheries, fruit & vegetable preservation, maintenance and repairing of farm machinery and tools,

Inauguration

and hybrid seed production. These youths can be trained in the applications of ICT for rural development through which farmers can benefit using the digital technology.

Lamp Lighting

In a fast changing global environment, agriculture has to be more dynamic so as to harness the latest technologies and emerging opportunities due to globalization of agriculture. Hence, it is paramount that existing concern of "digital divide" and the future role of ICT are well understood and recognized. It is in this context, organizations such as Trust for Advancement of Agricultural Sciences (TAAS), National Academy of Agricultural Sciences (NAAS), Indian Society of Agricultural Statistics (ISAS) and the Asia-Pacific Association of Agricultural Research Institutions (APAARI) jointly organized a National Workshop on "Role of Information Communication Technology in Taking Scientific Knowledge/Technologies to the End Users" on 10-11 January, 2005 at the Indian Agricultural Research Institute, New Delhi. Around 70 experts representing different stakeholders *i.e.* Public Institutions (ICAR, DOAC, NIC, DBT *etc.*), NGOs, Foundations, Private Sector, Farmers' Commission, International Agricultural Research Centres etc. deliberated on all relevant issues by which ICT can become a catalyst of change in Indian agriculture.

The brainstorming sessions centered around current status, opportunities and constraints to make ICT a major player towards making India a developed nation through progress in agriculture sector, especially by linking producers with consumers. Following are the major recommendations:

1. ICT based initiatives for agricultural development, including farmers prosperity, should be multi-dimensional in nature, addressing problems of rural communities in a holistic manner touching all aspects of rural life including agriculture, human/animal health, education, banking, governance, entertainment etc. This can be achieved by setting up rural knowledge centres using broadband connectivity with multi-media interactive modules in problem solving mode by developing a synergy among various stakeholders involved.

2. Knowledge intensive products and services for empowerment of our farmers are urgently needed. This would require a well-coordinated system among government,

A view of audience

public and private organizations. In this context, Indian Council of Agricultural Research (ICAR) and the Department of Agriculture and Cooperation (DOAC) under the Ministry of Agriculture can play a leading role in having a National Agricultural Information System (NAIS) established.

3. The existing knowledge dissemination agencies in the country such as ICAR Institutes, SAUs, KVKs/ATICs, NIC, IFFCO, KRIBHCO, as well as other non-government and private sector institutions need to be networked rather than creating a new institution so that available information/knowledge is shared and transmitted freely to the end users. NAIS should work in a partnership mode ensuring complemetarity and subsidiarity with assigned responsibility, authority and required resources. Institutions such as IARI and IASRI could jointly play the coordination role under NAIS.

4. Suitable mechanisms need to be developed for the creation of location specific knowledge capsules in the form of CD-Rom, Portals, Kiosks etc. through involvement of specialized institutions.

5. Complexities in the second-generation agriculture would require greater role of emerging ICT tools and methods in complementing the existing extension system. This would require capacity building of extension functionaries for the transfer of knowledge without dissemination losses to the end users. At the district level, the KVKs could in future play an important role provided given specific ICT mandate with commensurate human resource.

6. Village level ICT should be the ultimate goal for easy access to required knowledge by the farming community. This could be achieved through promotion of Rural Information Clinics or Rural Internet Chaupals by the enthusiastic young entrepreneurs, well trained as ICT agents by the SAUs and ICAR institutions located throughout India. For access to knowledge at the farmers' door steps, the above goal must be met.

7. There is also a need to reorient the agricultural extension curriculum so that extension workers in future are spatial and information specialists as well. The National Agricultural Research System (NARS) should be proactive in providing user-friendly, need-based and locally relevant trainings.

8. There should also be an emphasis on gender equity by letting women have easy access to ICT, ensuring gender oriented content and the increased women participation in the application of ICT.
9. There is a strong need to establish joint ventures with the Private Sector and NGOs to enrich ICT resources in terms of both hardware and software and the relevant content creation.
10. To empower agricultural community with needed information and knowledge in the coming decade (by 2015), the Government should come out with an Agricultural ICT Policy with a Mission-oriented strategy to implement the same in a time-bound manner. Only through such commitment at the highest level, we shall be able to address the concern of "Digital Divide" and empower our farmers to be worldly wise and most competitive.

Concluding Session