

E-Agriculture-A boon



Economics

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ABSTRACT

E-agriculture, therefore, describes an emerging field focused on the enhancement of agricultural and rural development through improved information and communication processes. The main objective is to provide an interface to farmers and consumers and to facilitate linking up of agriculture produce marketing cooperatives. ITCs, E choupal, Eid, Parrys agriline, Gyandoot project, Information village project of M.S. Swaminathan research foundation (MSSRF), I-Kisan project of Nagarjun group of companies, Kisan Call centre, Bhoomi Project, Village knowledge center etc. are the recent developments in e-agriculture in India

E-agriculture

It is a relatively recent term in the field of agriculture and rural development practices. Consistency in the use of this term began to materialize with the dissemination of results from a global survey carried out by the United Nations (UN). This survey conducted in late 2006 by the Food and Agriculture Organization of the United Nations (FAO) found that half of those who replied identified "e agriculture" with information dissemination, access and exchange, communication and participation processes improvements around rural development. In contrast, less than a third highlighted the importance of technical hardware and technological tools.

E-agriculture, therefore, describes an emerging field focused on the enhancement of agricultural and rural development through improved information and communication processes. More specifically, e-agriculture involves the conceptualization, design, development, evaluation and application of innovative ways to use information and communication technologies (ICTs) in the rural domain, with a primary focus on agriculture.

Mission and Objectives

The e-Agriculture Community of Practice is a global initiative launched in partnership with the e-Agriculture Working Group in 2007 to enhance the role of ICT in agricultural development and food security. It provides an international framework to facilitate the processes of capturing, managing, and disseminating the lessons learned through national and regional activities, as well as the results and implications of multilateral processes related to the use of ICT in agriculture and rural development. The e-Agriculture Community also provides the basis for the international community to monitor development and validation of conceptual models and methodologies, and to package and disseminate them once tested. Through its collective activities some additional outputs of the Community include: the development and strengthening of innovative mechanisms and processes for information exchange and communication, including normative guidelines and tools being formulated, tested and disseminated to address the range of demands and capabilities of different Community members; empowering networks for exchange of new mechanisms and processes among key stakeholders; relevant content in digital format being developed, filtered, mobilized and exchanged by community members; and other activities based on active partnerships and collaborative lesson-learning.

Deliverables

The e-Agriculture community has over 6,000 registered individual members. This membership encompasses development practitioners, policymakers, representatives of farmer organizations, researchers, and information and communication specialists involved in agriculture and rural development, from more than 150 countries. The Community activities comprise three components: a web-based multilingual space (English, French and Spanish) for knowledge sharing and collaboration on a neutral domain (e-agriculture); face-to-face events; and in-country interventions.

Over this past year, e-Agriculture Community members from

around the world participated in activities such as online forum discussions (virtual meetings), international and regional meetings, and free online capacity building opportunities (through the IMARK partnership). Participation from both the private sector and non-UN organizations was also secured.

Future plans

It is envisioned that the e-Agriculture Community will grow in 2010 by building upon the current successful knowledge sharing functions, and developing an interconnected series of pilot interventions, models of action and means for assessment, based on inputs from the e-Agriculture Community. Lessons learned from the national and regional components can be captured and disseminated through the e-Agriculture Community, and through other major participating institutions in support of capacity building. In order to facilitate this effectively, the establishment of a formal Secretariat with some financial commitments from partner organizations is deemed essential.

Prospects of Indian Agriculture

- National agriculture policy.
- Kisan credit card scheme.
- National seed policy
- Legislation on plant variety.
- Protection and Farmers Rights

Need of e-agriculture in india -

1. Empowering farmers with relevant and timely information about different crop variety.
2. To reduce farming risks information on weather, production and cultivation techniques, seeds and fertilizers, plant nutrients and water usage.
3. To reduce knowledge gaps and increase knowledge sharing for increasing productivity and boosting growth in rural areas. Funds and liability coverage through agri-finance and agri-insurance.
4. Assistance from universities on new techniques used in increase production yield.
5. Market infrastructure like warehouses and cold chain management

Since information technology solutions to facilitate the collection of agricultural information. A multi media multi purpose community tele centre in the village to enhance access to educational weather and health information (through internet, media, TV) and also facilitate communication between the village community and the rest of the world.

To meet the objectives-

1. Onsite visits to the village and the data communication infrastructure nearest to the village
2. Use of wireless technology as most economical and technically feasible method to bring affordable internet access to the village.
3. Use of internet access and backbone data communications infrastructure and radio transmission to cover the last mile and ensure enough bandwidth to support other types of e-applications such as e-learning, e-community, e-health and the main application is e-agriculture.

4. Use of wireless routers located to enable further expansion of the data communication infrastructure to additional sites within the 50-60 kilometer range without the need for additional backbone infrastructure.

Recent advancement in e-agriculture in India

1. The application of ICT in agriculture through various organizations which has been evolving with various initiatives in order to encompass the entire agri value chain and knowledge technology. The prominent ICT technologies are-
2. ITCs, E_choupal, Eid Parrys agriline, gyandoot project
3. Information village project of M.S. Swaminathan research foundation (MSSRF)
4. I-Kisan project of Nagarjun group of companies.
5. Kisan Call centre.
6. Bhoomi Project.
7. Village knowledge center etc.
8. Operating well throughout the country.

Good data and information can be an important tool for decision making and for taking action by the farming community.

ITCs will serve as a predominant role for fulfilling the needs of a second green revolution.

Agriculture and ICTs in India

Agricultural Strategy for Eleventh Plan, Planning Commission, Government of India, has pointed out that with the availability of land and water fixed, the goal of 4% growth in agriculture can be achieved only by increasing productivity per unit of scarce natural resources through effective use of improved technology. It is planned that alternate delivery channels spanning Rural Knowledge Centres (RKC), ICT-based extension, farmer-to-farmer extension, NGOs and the private sector should also be promoted simultaneously. The scheme--'Mass Media Support to Extension' aims to utilize the impressive infrastructure of Doordarshan (DD) and All India Radio (AIR) for producing and broadcasting agricultural programmes for supporting other extension efforts. The National Agriculture Policy emphasizes upon the use of Information Technology (IT) for achieving a more rapid development of agriculture in India. The Department of Agriculture and Cooperation, therefore, is in the process of preparing a National e-Governance Plan in Agriculture (NeGP-A) for a more focused implementation of e-governance activities in the agriculture sector. In order to promote e-governance in agriculture at the centre and provide support to states/UTs for the same, the Department of Agriculture and Cooperation is implementing a central sector scheme, 'Strengthening/Promoting Agricultural Information Systems' during the Tenth Plan with a budgetary provision of INR 100 crore. The scheme has the following components: (i) Development of agricultural informatics and communication; (ii) Strengthening of IT apparatus in agriculture and cooperation in states and UTs

(AGRISNET); (iii) IT apparatus at Department headquarters and its field offices; (iv) Agricultural Resources Information Systems (AgRIS); and (v) Kisan Call Centres. The Department has developed four portals and 40 websites covering both headquarters and its sub-formations under the component "Development of Agricultural Informatics and Communications". Some important portals which have till now been developed are: (a) AGMARKNET Portal (<http://agmarknet.nic.in>); (b) DACNET Portal (<http://dacnet.nic.in>); (c) DAC Portal (<http://agricoop.nic.in>); (d) INTRADAC Portal (<http://intradac.nic.in>); (e) SEEDNET Portal (<http://seednet.gov.in>); (f) Agricultural Census Portal (<http://agcensus.nic.in>). The Department of Agriculture and Cooperation is supporting e-governance activities at the state agriculture and allied departments through AGRISNET, a state sector mission mode project, which aims at providing improved services to the farming community using Information and Communication Technology (ICT). Agricultural Resources Information System (AgRIS) project has been launched for implementation in two pilot districts of Rohtak (Dairy Typology) in Haryana and Banaskantha (Arid Typology) in Gujarat. Kisan Call Centres initiative aims to provide information to the farming community through toll-free telephone lines. Usage of GIS satellite imaging in India had been happening since a long time in India

INITIATORS OF E-AGRICULTURE IN INDIA

The Association For People of Haryana (AFPOH) has taken many steps and initiatives at national and international level in the fields of agriculture, health, rural infrastructure development, revitalizing financial access to rural farmers, etc. As far as initiatives for e-agriculture in India are concerned, they have shared their research works and suggestions with national and international community. They have also started an initiative titled e-agriculture in India that would endeavor to amalgamate ICT with agriculture in India.

- AFPOH is a social initiative by an association of people who are working in the direction of empowering the marginalized and deprived people in rural and other areas. The area of operation of AFPOH covers segments like agriculture, health, banking, finance and insurance, education, rural infrastructure development, power, etc. AFPOH has strengthened the use of IT in agriculture by extending support for legal and regulatory measures that farmers and other people may face in various situations.

AFPOH using ICT for its mission and objectives AFPOH is working in the direction of use of ICT for communication and sharing of views, expertise, suggestions, problems, etc at national and international level. AFPOH intends to provide a 'voice' to the marginalized and deprived segment so that national and international communities can coordinate and collaborate their empowerment initiatives. Concepts like e-agriculture, e-health, e-learning, e-commerce, e-banking, etc are also some of the initiatives that are in the process of implementation by AFPOH.

REFERENCE

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