



Summary of First e-Agriculture.org Featured Forum: Responding to Demand- The Focus of e Agriculture

Overview

The first e-Agriculture.org Featured Forum -'Responding to Demand- The Focus of e-Agriculture'- ran from July 9-July 21. Members of the new community expressed their views on e-Agriculture and the potential and existing ways in which information, communication, and associated technologies can play a role in agriculture and rural development. The forum's focus and structure evolved in response to participant preference. Initially, the forum was intended to be divided into three chronological parts: first an overview of the e-Agriculture survey conducted in the 4th quarter of 2006, second a review of innovative communication systems which participants had experienced, and finally a discussion of how to make content demand driven. However, based on participants' posts, the forum shifted into three main threads (similar to the chosen topics) which ran the length of the two weeks. These topics were:

1. **Innovative Information and Communication systems- What innovations work and why?**
2. **How to make information Demand Driven?**
3. **Improving Information Access for Farmers: How Can This Be Achieved?**

Below are key points mentioned in each topic:

Topic 1: **Innovative Information and Communication systems- What innovations work and why?**

The three major types of systems discussed were

- systems for sharing knowledge between agricultural researchers
- systems for helping farmers access information, and
- systems to help share information generated by farmers.

Systems to share knowledge between agricultural researchers

- Several participants described systems they have participated in, including AARINENA and Nerakin (Near East and North Africa), NARIMS (Egypt), SIDALC and UNICOOP (Americas), GAINS (Ghana), the NATP Mission Mode Agricultural Data Warehouse (India), and the Western Asia database of agricultural researchers.

- Points mentioned as key to the functioning of research information systems were

-- 'The strong relationship which should be developed between national and regional levels. I have found that without a strong National Information System, you couldn't have a strong [Regional System].' - Taraneh Ebrahimi (AARINENA)

-- A proper focus by policymakers on improving information management capacities at agricultural research institutions.

- Policies and strategies focused on information management,
- Better organizational incentives for sharing information,
- Improved infrastructure for information storage, organization, and transfer
- More funding for information management.

- Problems seen as recurring and important were:

- National systems are quite varied in their information management capacities
- National systems often lack incentives to digitize information or share it.
- Systems such as NARIMS, which facilitate digitization and sharing, have not been very widely diffused.

-- Weak communication and Knowledge sharing systems is a big problem which you can see at the national and regional levels.'

Systems to help farmers access information

- Participants mentioned the VERCON extension-research network(Egypt), the CTA Southern African Development Community Question and Answer service, the Kubere Information Center (Uganda), e-Seva (India), which helps farmers access government services and could be used for agric content, the Information Village Research Project(India),which has created access points for agricultural and other information, Radio Mali Shambani (Kenya), which has brought information to rural farmers on farming tips, post-harvest handling, market linkages, and animal husbandry, and the Kenyan Ministry of Agriculture's programme 'Sikio la Mkulima.'

- Points mentioned as key to the functioning of farmer information systems were

-- Using ICTs to support farmers' existing sources of information, such as extension agents and radio stations

-- Linking of research and extension services, through systems such as the VERCON in Egypt, and CTA's SADC question and answer service. Clare O'Farrell mentioned that increasing the capacity of research and extension to interact and their ability to help and influence one another can change both for the better.

-- Ensuring that systems really created incentives for all parties to participate

-- Efficient management for quick addressing of problems.

-- In systems involving direct ICT access by farmers, capacity building is a major issue , as are trying to make systems as easy to use as possible (for example, putting them into local languages) and making them accessible through systems farmers already use, such as SMS.

-- Financial sustainability can often be the issue that makes or breaks these types of systems.

Systems for sharing farmer-generated information

- It is important to remember the value of farmer generated knowledge, and to ensure that information sharing is not a one-way street.

- In many situations, information sharing at all levels is possibly the most important factor in the project's success.

- Communications Infrastructure (access to power and connectivity) can be a major barrier.

- Gender bias was mentioned several times in relation to access to information and ability to communicate.

Some Systems mentioned:

- AARINENA (www.aarinena.org)

- Agricultural Biodiversity Weblog (<http://agro.biodiver.se>)

- BioGreen Technologies (

- CELAC/BROSDI (<http://www.celac.or.ug/> <http://www.brosdi.or.ug/>)

- e-Seva (<http://esevaonline.com/>)

- GAINS (www.gains.org.gh)

- GFAR (<http://www.egfar.org/egfar/>)

- ILEIA (<http://documentation.leisa.info/>)

- IVRP (<http://www.mssrf.org/>)

- NATP Mission Mode project Agricultural Data Warehouse (www.inaris.gen.in)

- PRAIS (CTA SADC Q+A System)

(<http://www.uovs.ac.za/faculties/content.php?id=3475&FCODE=12&DCODE=431>)

- Prolinnova/IFAD/ILEIA (www.prolinnova.net)

- VERCON (http://www.vercon.sci.eg/Vercon_en/vercon.asp)

- WOUNET (www.wougnnet.org/ <http://kic.wougnnet.org/index.html>)

Topic 2: How to make information Demand Driven?

Key factors in making information demand driven

- In order to meet rural communities' expectations, and therefore to make information more demand driven, it is necessary to evaluate the level of literacy of the community in which the programme has to be implemented so that the programme's structure can fit the community's needs.

- Programmes should be designed to be attention grabbing as well as to be regularly monitored in order to catch implementation problems and/or new content more relevant to the community.
- Substantial investment in developing-country ICT is necessary to 'empower agricultural agents' as intermediaries between knowledge producers and knowledge users.
- ICT use in agriculture should be focused on specific goals, such as the achievement of food security, and not be implemented for its own sake.
- Side by side participation by both governmental and non-governmental institutions is necessary to bridge the information gap between the national and the local levels.
- Making content demand driven and useful is about more than just producing content that is needed; it involves connecting demanded content with demanders when they need it. This can be done through improved needs assessments, and empowering demanders whose demands are not currently being heard or met.
- Incentives need to be developed for information production and sharing
- Bringing groups of demanders together can amplify their voices.
- It is important to look at the roles and interdependence of all the actors in provision and management of information- agencies, organizations.
- Information sharing needs to be improved among all development organizations and agents and that this requires improved linkages between actors.
- Researchers need to understand and respond to farmers' needs better.
- The demand and provision of agricultural information can be seen as a system with several interconnected elements- consumers/retailers, farmers, extension agents is one particular chain. In order to try to make information demand driven within a chain we need to look at each of its links, their information needs, and their methods of communication.
- It is important to support farmers in documenting and sharing what they know.
- Dorothy Okello spoke of the experiences of WOUGNET in documenting farmer knowledge. 12 Ugandan women's' groups equipped with training, mobile phones and audio cassettes have been able to tape their meetings and send questions to experts via the internet. Responses are then taped and played back to the group. Questions and answers are also played on the radio.
- Combining e-agriculture with health is an important direction to explore.

Key Challenges

- Janaki Krishna mentioned that many rural communities do not participate in ICT initiatives because of the lack of demanded content, i.e. detailed information on governmental programmes in rural areas as well as region-specific information on 'agricultural insurance, agricredits, agrimarkets, agripricing, and agri-inputs'. Other users suggested that once this type of information is provided, farmers will feel more encouraged to participate actively in information sharing activities.
- The lack of e-agriculture schools was also indicated as another hindering factor towards the diffusion of practical information about agri-inputs and their management.
- Farmers' participation in the above-mentioned structures and/or programmes can also be blocked by the lack of the necessary infrastructure for the implementation of these programmes.
- Many potential stakeholders in the e-agriculture community may not have access to online forums
- Intended beneficiaries do not always have enough influence over information producers
- Often the types of solutions that are said to really work, client-oriented and participatory approaches, are beyond the budgetary reach of many developing country governments.
- There is often not enough focus on farmer capacities to communicate their knowledge

Topic 3: Improving Information Access for Farmers: How Can This Be Achieved?

Key Factors in Improving Access

- Communicating/packaging/delivering information effectively, recognizing the different circumstances farmers face and building systems flexible enough to handle these. Federico Sancho mentioned four key areas: livelihoods and conditions, information needs, languages spoken, and means of accessing information (internet access, literacy, mobile coverage, etc)
- A major focus must be put not just on collecting the right information, but on delivering it in a format which is accessible and will be accepted by farmers.
- Involving the private sector, rather than just the government. Often it is difficult for rural stakeholders in many countries to hold their governments accountable and that when service delivery and funding are

unsatisfactory, it can be difficult for stakeholders to do anything about it. Involving the private sector can sometimes shift the incentive structure and improve the situation.

-- Strong leadership and a long term strategy- often e-agriculture projects fail because they are not well planned and there is a focus on ICTs for their own sake or for political showcase purposes, rather than on making sure the end-goal of the project is improving people's lives. This can mean that funding and leadership are lost when these short term goals are fulfilled.

-- Strong but flexible legal frameworks and information management policies, which will outlast changes in government officials.

-- Building capacity, involving the entire staff of projects in the use of ICTs from the start, so they understand and buy in to their use, and using ICTs to improve back-end information processes.

-- Viewing information as a 'perishable good' with a chain of being, from information producer to information consumer.

-- E-Agriculture should be tackled on a regional basis to facilitate different regions learning from one another.

Key Challenges

- Governments are often not accountable enough in providing agricultural services, and that stakeholders can't do much to improve their quality or level of funding.

-- The research-production link is completely different in developing countries than in countries like the US, where most research is done commercially and paid for by farmers, rather than the government.

-- Several participants mentioned poor infrastructure (power, communications, roads) as a major difficulty, and Md. Nazrul Islam said that often it is difficult to even determine through which channel one can give farmers information- TV and radio are too expensive, extension visits are too infrequent, internet is inaccessible, mobiles are often not used for agricultural information, and illiteracy and cost make newspapers unviable.

-- Many Governments lack data and information management policies, and some even consider a Freedom of Information Act to be the same thing as an Information Management policy.

-- Often the importance of information has been neglected as a factor in improving farmers' lives, and therefore it receives less funding and priority than it should.

-- Other challenges mentioned were lack of political will, lack of senior management support for e-Agriculture projects, lack of funding, poor legislative frameworks, lack of human resources capacity, overambitious and politically motivated projects, and resistance to change.

Other Key Points

The major types of information mentioned were market information, weather information, and technical information for production and processing. Information was seen as crucial to helping farmers improve food availability and to market their goods at their true value, rather than letting other actors such as traders undervalue their products. Several methods of access were discussed. Paul Sillu mentioned Computer Information Centers, such as those in a USAID project in Kenya, online services, such as eadairy (www.eadairy.com), and e-sokoni, and information centres run by successful farmers, who are already trusted by other farmers and therefore better equipped to pass information to them. Joel Sam mentioned radio call-in shows.

Overall

The forum generated a great deal of discussion on all three topics, and saw participation from e-agriculture community members from around the world. Although the featured two weeks of the forum have finished, users continue to post, and therefore the forum will remain open. The first Spanish forum will open on July 30, and in the next several months forums are planned on agricultural research networks and market information systems. The results of both forums will be used as a basis for discussions during e-Agriculture week September 21-28.

For more information on any of the above, contact: info@e-agriculture.org