ICT-enabled Collaboration for Agricultural Science for Development: Scenarios, Opportunities, Issues

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ICTs transforming agricultural science, research & technology generation
Science Forum Workshop Theme 3
Scenario’s

Trends or developments in transformation of ‘agricultural science for development’

1. Traditional research
2. Participatory-innovations systems research
3. ICT-enabled
Opportunities

- Providing many more channels for information to flow to target groups that are appropriate for them
- Providing ways to include more voices in M&E and to make it a wider learning process
- Providing ways for co-creation, collaboration and feedback on development of products despite different geographical locations
- Providing ways for people to be involved in this, share information and...
- Providing ways for more people to provide information/priorities/needs from the ground and influence this
- Providing ways for more people to be involved in and contribute to this process
<table>
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<tr>
<th>Stage in agricultural research process</th>
<th>Goal</th>
<th>Contribution of ICTs to achieving Goal</th>
<th>Examples of ICT interventions supporting greater collaboration, communication and knowledge sharing with stakeholders</th>
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| a. Identifying research priorities   | Chosen research to reflect ideas, needs, priorities of stakeholders & their situations | ICTs can provide mechanisms for allowing a wide range of stakeholders to provide opinions and knowledge to support this | * Online forums and platforms can allow for a wider consultation process  
* Online collaboration tools can allow discussions with ..  
* Online tools such as CMAP-can store relevant information and allow it to be searchable  
*Book on CGIAR research prioritization methods and experiences |
| b. Planning and designing research   | Research is designed with inputs from stakeholders | ICTs can provide mechanisms for allowing a wide range of stakeholders to provide opinion and knowledge to support this | * Many web2.0 tools which can share information and allow for online collaboration in discussing ideas as well as developing documents  
* Storytelling  
* Social Network analysis |
| c. Undertaking research (data collection, analyzing and using data, etc) | Research is undertaken with contribution from stakeholders | ICTs can provide mechanisms to allow more stakeholders to be involved in research activities | * Data storage  
* Learning Alliances |
| d. Producing products from research results | Products are developed with contribution of various knowledge sources; and keeping in mind various target groups | ICTs can provide options for getting feedback and collaboration on product development from a wide range of stakeholders. | * Online tools which allow collaboration in developing products (e.g wikis, etc)  
* Spatial information and analysis tools |
| e. Dissemination of research products and messages | Dissemination is done in ways that appropriately target stakeholders | ICTs offer more avenues for sharing of knowledge with stakeholders of different types, in different situations | * Mobile phones, Radio, other telecomms  
* Web 2.0 tools – websites, blogs, other social media  
*Face-to-face knowledge sharing activities  
*Printed products |
| f. Monitoring and Evaluation         | Research process includes mechanisms for learning and contributing to direction and analysis of project; outcomes are decided by all | ICTs provide ways to involve people in setting goals and outcomes for projects and involving them in the M&E activities. ICTs can create opportunities for wider learning from projects. | * Participatory M&E methods (e.gs Impact Pathway, Outcome Mapping, etc)  
* Online surveys |
Issues

For this topic of the role of ICTs in agricultural research to be properly considered and made use of within a new and Revitalized CGIAR some questions should be addressed:

- Are the CGIAR and its partners ready to fully capitalize on the use of ICTs in agricultural research? How can the CGIAR adjust to the transformation from primary knowledge creator to one of a multitude of actors involved in developing innovations by making use of ICTs?

- What ICTs are currently in use or can be adopted to bring about this transformation? How can institutional and individual mindsets be opened to these opportunities when the investments of time and effort may not bear immediate returns?

- Should the CGIAR simply be following the trends or be playing a leadership role in exploring the use of ICTs for improving the effectiveness of agricultural research for development efforts? If “little systematic scholarship exists”, should the CGIAR be a recipient or provider of such scholarship on ICTs in agricultural research?