



### **Linking farmers to research**

#### *Using ICT to carry scientific knowledge to rural communities*

To realize a food-secure world, millions of resource-poor small farms in developing countries need to significantly raise their agricultural productivity, become resilient to shocks and seize opportunities to increase their incomes. This can happen if farmers can access and effectively use the right information at the right time. Modern day information and communication technology (ICT) can play a significant role in extension efforts with improved efficiency and real-time advice. To meet the challenge of providing smallholders in India and sub-Saharan Africa with information, ICRISAT opened a Center of Excellence (COE) in ICT innovations for agriculture to link research, extension and markets.

The COE has developed many information systems, for example, in southern India internet-equipped village knowledge centers and mobile mediated voice communication platforms provide up-to-date information on best farming practices, including drought vulnerability maps, climate adaptation methods, crop rotation, diversification and pest management for crops such as millet or sorghum. These platforms have helped around 46,000 farmers in 21 villages in one of the poorest regions of south central India, including women, become more food secure and resilient to drought. “Earlier we used to take advice from the shop dealer on mixing of pesticides,” explains Satyanarayana Reddy, a farmer from Jaanampeta village. “With ICRISAT’s information advisory service we are able to measure the accurate dosage. It saves money.” says Narmadamma of the ICRISAT ICT Rural Hub. Plans are currently underway to replicate and expand the voice message model across Asia and Africa through a financially sustainable public-private partnership model.



*Farmers using mobile phones to get weather information.*

Providing free web-based access to research is another priority. Holding about 6000 research documents, including journal articles, conference papers, theses and monographs, an Open Access Repository launched by ICRISAT provides an easy interface for researchers, practitioners and web-connected farmers to use, build on and share research conducted at ICRISAT. Since its creation in May 2011 more than 144,000 documents have been downloaded by people from more than 70 countries, with around 6,000 unique users visiting the Repository every month.

ICRISAT uses the ICT enabled virtual knowledge series platform (called the KSI Connect platform) to share fascinating stories and interesting research projects with in-house and global audiences. This platform allows experts across the globe to share their project experiences and cutting-edge research activities contributing to global food security. With KSI Connect, all agricultural stakeholders now have direct access to the most knowledgeable technical experts and the latest scientific innovations in agriculture, without ever having to travel or interrupt their daily activities. Since its launch in July 2012, more than 100 videos have been hosted on this platform and the KSI Connect website receives more than 3,000 users every month from 65 countries.

The rise of new ICT devices such as tablets and smart phones will certainly create new opportunities for user-friendly information about quality inputs and market access to reach farmers. They will also create job opportunities for info-entrepreneurs that can create crucial added value for farmers. Current research on “*Krishi Gyan Sagar*” and “*Krishi Vani*” (<http://ksiconnect.icrisat.org/launching-of-krishi-gyan-sagar-kgs-and-krishi-vani-an-innovative-extension-system/>) is providing insight into how a sustainable ‘backbone communication network’ can be developed to improve the quality and convenience of information (crop, market, weather and user’s choice) dissemination to smallholder farmers and transparency within the value chains, and we look forward to the day when ICT becomes as familiar a tool to farmers as a sickle and a hoe was to their ancestors.

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Source : <http://www.icrisat.org/what-we-do/satrends/satrends-2013/satrends-august-2013.htm>