ICT in Agriculture Bangladesh Perspective

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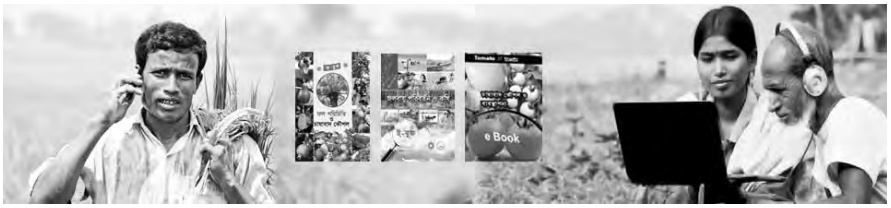

The mere mention of agriculture conjures, for many, outmoded images of a backbreaking industry. It's an image that holds true in some places where few farmers utilize contemporary farming technologies and techniques.

But ICTs play an increasingly important role in agricultural value chains. Though important, cellphones aren't the only ICT being used to improve agriculture. ICTs encompass radios, digital cameras, geographic information systems (GIS), cloud computing, tracking mechanisms, etc.

Recently, government has decided to expand e-Krishi (e-agriculture) services in rural areas to disseminate agricultural information among farmers. Under the InfoSarker project the government has chosen 254 farmers' associations to turn them into ICT-driven Agriculture Information and Communication Centres (AICCs). Members of these centres will work as 'smart farmers' who will provide agricultural information to their fellows. This initiative will definitely boost our agricultural output by helping farmers employ IT applications and services suited for firm and wider agricultural use.

The agriculture sector is increasingly becoming knowledge-intensive where farmers require more information to make complex decisions on their land use, selection of the crops, flexibility in the choice of markets for their produce and other necessary decisions that impact their lives. Using ICT in innovative ways through ICT-enabled services helps in disseminating timely information and agricultural advisories to improve farmers' capacity and empower them with contemporary farming technologies and techniques.

With these new 254 centres the number of AICC has risen to 499. Still we need to set up more such centres to cover the whole agricultural landscape, particularly the remote areas. We should also focus on ICT innovations like developing agri-apps, SMS, weather alert, cloud computing, tracking services and so on. The government and private ICT solution providers need to invest more in making these ICT tools affordable to poor farmers. Five ways in which ICT can help tackle key challenges in agricultural value chain development are:

Pricing and weather information systems

Applications (apps.) to help buyers manage transactions with the thousands of small-scale farmers who supply to them. Mobile banking and apps. that facilitate quick payments. Initiatives to expand the reach of farm extension services through phone, radio, video and sometimes all three. SMS or text messaging campaigns for enabling environment advocacy

The increasingly important role of ICTs in agriculture can help change the face of the sector (from outmoded to cutting edge). In fact, it should form part of the larger thrust to attract more young people to the sector. In a resent blog I contend that there's a strong link between ICTs and general youth employment. Agriculture is no exception. ICTs offer employment opportunities in the sector that are both attractive to young people and are in demand.

The rationale for Agricultural infomediaries, which enable quick access to information databases that were previously unavailable, best underscores how ICTs have improved agriculture in some places. The basic concept is that the economic livelihood of farmers has been hampered by ad hoc marketing systems and broader issues of information asymmetries for centuries. In other words, poor communication between producers and buyers results in inadequate planning, and ultimately an unstable market environment. So, In much the same way the global economy is driven by knowledge, agriculture depends on high quality, reliable and efficient information systems.

While the full impact of ICTs on agriculture is subject to research, there is compelling evidence about successful use of technologies in the sector. Here are some interesting application of ICT in agriculture.

Smartphone mobile apps. in Agriculture

Use of Mobile technologies as a tool of intervention in agriculture is increasingly popular. Smartphone penetration enhances the multi-dimensional positive impact on sustainable poverty reduction and identify accessibility as the main challenge in harnessing the full potential in agricultural space. Reach of smart phone even in rural areas extended the ICT services beyond simple voice or text messages. Several smartphone apps are available for agriculture, horticulture, animal husbandry and farm machinery.

Smartphone mobile applications designed and developed by Jayalaxmi agrotech Pvt. Ltd. from India are the most commonly used agriculture apps in India. Their mobile apps are in regional language are designed to break the literacy barrier and deliver the information in most simple manner. Several thousands of farmers across Asia are empowered with these apps. In Bangladesh there are several initiatives including e-purji and Bangla Link's agricultural help line are very popular.

RFID

The Veterinary Department of Malaysia's Ministry of Agriculture introduced a livestock-tracking program in 2009 to track the estimated 80,000 cattle all across the country. Each cattle is tagged with the use of RFID technology for easier identification, providing access to relevant data such as: bearer's location, name of breeder, origin of livestock, sex, and dates of movement. This program is the first of its kind in Asia, and is expected to increase the competitiveness of Malaysian livestock industry in international markets by satisfying the regulatory requirements of importing countries like United States, Europe and Middle East. Tracking by RFID will also help producers meet the dietary standards by the halal market. The program will also provide improvements in controlling disease outbreaks in livestock. In Bangladesh these kind of RFID project should be introduced for livestock-tracking to monitor the health of the cattle ■