

# Chapter 8

## KHETI: ICT Solution for Agriculture Extension and Its Replication in Open and Distance Learning

**Syed Mohammad Haider Rizvi**  
*State Water and Sanitation Mission, India*

**Andy Dearden**  
*Sheffield Hallam University, UK*

### ABSTRACT

*The advancements in Information and Communication Technologies (ICTs) and their applications in development arenas have tremendously boosted prospects of human development. In education and agriculture domains ICTs have been applied and paid dividends. In this paper, an innovative and participatory designed ICT solution – ‘Knowledge Help Extension Technology Initiative (KHETI)’ that is meant to ensure flow of agriculture information in real time to poor farmers at remote locations has been discussed. KHETI has leveraged upon the power of ICTs, particularly the multi-media mobiles phones to boost the extension services. It has features to construct, record, play and sending Short Dialogue Strips. The system and its functionalities are speeding-up communications through images and voices amongst various stakeholders and Agriculture Specialist with help of mobiles to get back responses on their queries, problems and other areas of interest. The paper has dealt in detail about KHETI and its possible extension in open and distance learning services for facilitating access to education facilities.*

### 1. INTRODUCTION

Even after the rapid advancements in the industrial economies providing avenues for employments and socio-economic developments of societies and nations, the role and importance of agriculture based economies could not be lessened. With more than 80% of the population depending on agriculture for its livelihoods mostly in remote and geographically inaccessible areas, India presents one of the most challenging settings from the point of view of Sustainable Development Goals (SDGs). A careful scru-

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tiny of the agriculture scenario points to the fact that most of the problems emanating in the life of poor and marginalised in India are directly or indirectly geared by declining agriculture productivity that has got a prominent mention in SDG 2 – End hunger, achieve food security, and improved nutrition and promote sustainable agriculture. Goal 2.a of SDGs talks of increasing the investment in rural infrastructure, agriculture research and extension services, technology development etc., for enhancing agriculture productive capacities in developing countries. The growing concern for that agriculture productivity has to become focus of our policy planning and concrete actions thereof.

Similarly, in SDGs, the Goal 4 on education aims to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. It has been resolved that the education goals and accompanied targets would ensure action over the next fifteen years with emphasis on ‘People, Planet, Prosperity, Peace and Partnership’. The other goals in areas of health, growth and employment, sustainable consumption and production, and climate change also include and put importance on education. World Education Forum 2015 (WEF, 2015) at Incheon while developing ‘The Education 2030 Framework for Action’ reaffirmed that “education is a public good, a fundamental human right and a basis for guaranteeing the realization of other rights and essential for peace, tolerance, human fulfilment and sustainable development”. They participants reiterated that education is the key in achieving full employment and poverty eradication and resolved to focus the efforts on access, equity and inclusion, quality and learning outcomes, within a lifelong learning approach.

Problems are more or less similar in all the developing countries of the world and almost similar concerns are cropping up all over. Therefore, now, there is increasing policy thrust in developing countries to arrest declining agricultural productivity and ensuring education for all, thereby leading to reductions in poverty and stress on environment. India has placed the issues concerning agriculture on top of its agenda and several initiatives have been taken for educating the masses, and the successive five year plans have been showing their concerns on these important issues. Systems and processes are being put in place for dissemination of the requisite skills, scientific practices and know-how to equip the farmers to do their job productively. It is believed that such measures will enhance food supply, ensure subsistence in the life of the people and strengthen the systems of livelihoods helping the global community to fulfil the global commitments on Sustainable Development Goals.

It is, in this perspective the agriculture extension has gained prominence in the developmental agenda of the country. However, the issues involved are complex as land holdings are small, fragmented, having low productivity and poor connection with extension services. Farmers lack basic literacy to understand new technologies but desperately need skills and support for production, processing and marketing. Traditional agriculture extension systems are weak and lack adequate manpower to effectively support at the doorsteps of the farmers. Agriculture experts having low motivation to go to villages are largely located in urban settings. Poor villagers find it hard to travel long distances to take extension support due to their poor economic status and extremely poor transport network. The poor farmers need timely knowledge support right at their villages as per their convenience and also need the people having skills to articulate farmers’ problems with agriculture experts and scientists. There are obvious barriers of languages and cultural differences between input providers and the beneficiaries. There is a growing feeling that a viable agriculture extension system for rural areas need to be radically different from traditional practices. Flexibility and innovativeness need to be hall marks of any alternative system of agriculture extension which could accommodate the existing popular local knowledge bases.

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