Chapter 6

Diffusion and Dissemination of Agricultural Knowledge: An e-Communication Model for Rural India

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ABSTRACT

Almost sixty five percent of Indian population is engaged in agriculture that contributes to food security of the world’s second largest populated country. Though agriculture sector shares 26 percent of GDP, this sector is very crucial for the sustainable growth and development of India. The emerging agricultural challenges demand information intensive agriculture work and applications of state of the art knowledge to enhance agricultural productivity, but non-accessibility of information and subsequently awareness and knowledge gaps that exist in this sector, enormously affect agricultural productivity. Efforts are being made for e-communication of information in rural India. This chapter portrays such efforts of public and private sectors, pinpoints the problem areas for accessibility of latest agricultural knowledge and suggests an e-communication model suitable for transfer of agricultural knowledge in the rural areas of India.

INTRODUCTION

The world is facing twin challenges of economic growth and food and nutritional security of its inhabitants. Knowledge for enhancing agricultural productivity exists but is confined to limited pockets of populations. Many poor people do not know how to access it and use it to the best advantage of their limited land holdings. They therefore continue to live in misery and deprivation. “Of the world’s 1.09 billion extremely poor peoples about 74 percent (810 million) live in marginal areas and rely on small scale agriculture for their livelihoods” (Bage, 2005). A number of persons form such farming communities are illiterates and are undernourished. This seriously affects their capacities to access knowledge and even work effectively. They are the producers but not the adequate consumers of food because of poverty. “Most of the 842 million undernourished people in the developing world
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today are from farming families in developing countries” (Prolinnova, n.d.).

Increasing the agricultural productivity with the application of state of the art agricultural knowledge is not only essential for feeding the growing global population but is also linked to improving the economic conditions of people and overall development and growth of the world economy. “Agriculture is a vital development tool for achieving Millennium Development Goal that calls for halving by 2015 the share of people suffering from extreme poverty and hunger. That is the overall message of 2008’s World Development Report (WDR). …The report provides guidance to governments and the international community on designing and implementing agriculture-for-development agenda that makes a difference in the lives of hundreds of millions of rural poor” (World Development Report, 2008). There is a great potential for boosting the economy by enhancing the purchasing power of rural populations. This is possible by increasing productivity through knowledge intensive agriculture, focusing development activities in the rural areas through appropriate technologies that will further help in creation of jobs and movement of goods and services in rural areas.

Management of agricultural resources including the agricultural knowledge, building farmers’ capacities and removal of bottlenecks for good governance of agriculture at all levels is essential for increasing the contribution of the agricultural sector in the growth of economy. “To-day, rapidly expanding domestic and global markets; institutional innovations, finance, and collective information technology offer exciting opportunities to use agriculture to promote development. But seizing these opportunities will require the political will to move forward with reforms that improve the governance of agriculture” (World Development Report, 2008).

Agricultural Challenges and Opportunities in India

“India is endowed with a lot of water, sunshine, many rivers and good knowledge about agriculture. This needs to be better planned to improve yields, cold chains and exports of packaged and fresh products” (I-watch). India has a very rich biodiversity and is home to thousands of rare herbs and other plants. The country has about 127 different agro-climatic zones. Because of different climatic conditions at various geographical areas, one can find sandalwood trees in Karnataka, mango trees in Uttar Pradesh, apple trees in Himachal and Kashmir, coconut trees in Kerala and tea plants in Darjeeling and Assam and saffron flowers at Bhaderwah. India’s traditional system of medicine namely Ayurveda is also mainly based on medicinal plants and products derived from plants. “Up to 80,000 crores can be earned from exports of medicinal plants” (Pimbert & Tom, n.d.). A program has been launched in Himachal Pradesh on August 3, 2008 to make this hill state the herbal state by encouraging every rural family to plant a medicinal plant on its land. The medicinal plants were provided by the forest department free of cost.

The first level of Green revolution helped India to reach the level of food sufficiently from a situation of food scarcity. The next level of Green revolution demands strategic management of natural resources, bridging the knowledge gaps and incessant flow of latest agricultural knowledge to rural areas. Enhancing agricultural productivity is important but effective management of agricultural produce in terms of storage, processing and marketing is equally important. “India produces the maximum of fruits and vegetables in the world about 55 million and 75 million tons per year and 40% is wasted. What are we doing about it? Should we let it rot? Or should we let others pick it up and export or market in India” (I-watch). There is a lot of potential for setting
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