

## Information and Communication Technologies for Agriculture Knowledge Management in India

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**Abstract:** The National Agricultural Innovation Project (NAIP) of The Indian Council of Agricultural Research (ICAR), New Delhi supported a Consortium project on the use of ICTs in developing a multimedia data base of Best Management Practices (BMPs) for few important crops and provide solutions to production problems faced by farmers across the country. Through the activities of the Consortium, leading professionals in agriculture and ICT sectors have developed key new products and platforms that form the nucleus of a possible global collaborative effort. Salient findings from the work carried out in the consortium mode by The Universities of Agricultural Sciences, located in Dharwad and Raichur are briefly presented here. Useful and relevant bilingual multimedia content on important crops such as paddy, cotton, pigeon pea and chick pea was developed in collaboration with Indian Institute of Technology (IIT), Kanpur and Indian Institute of Technology and Management (IITM), Kerala by using their web platforms namely Agropedia indica and AKMIndia, respectively. A very popular aAQUA portal developed by IIT, Mumbai was used to transfer agriculture technologies from National Agriculture Research System (NARS) to the farmers. Nearly 18,000 members and 13,000 threads were created in aAQUA besides posting 250 audio clips on 25 crops. Multimedia content in bilingual language on cotton, paddy, chickpea and peginon pea has been uploaded to Agropedia indica portal. Around 1200 online fertilizer recommendation for 26 crops has been generated through GIS web based application in AKMIndia portal.

**Key words:** Information and Communication Technologies (ICTs) • Agriculture Knowledge Management (AKM) • Web portals • Multimedia content • aAqua and Agropedia indica

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### INTRODUCTION

India is one of the biggest and strongest agro-based nations in the world. In spite of an alarming increase in the population, it has managed to attain self sufficiency in agriculture, thanks to green revolution and sustainable agriculture. However, looking into the total area under cultivation, achievements made in agricultural productivity are far below the desired levels. One of the major constraints facing Indian agriculture is the deficiency in transfer of relevant knowledge from National Agriculture Research System (NARS) and State Government Agriculture Departments to the small and

marginal farmers who form bulk of the nation's agricultural population. Hence, farmers are deprived of timely availability of latest technology and support leading to considerable economic loss, distress and suicides in extreme cases. Further, there exists a huge gap between farmers and agricultural scientists and extension agencies involved in technology development and transfer activities. Under such circumstances, innovative Information Communication Technologies (ICTs), can play a major role in bridging this gap.

Agriculture Knowledge Management (AKM) helps in creating knowledge repositories, improving knowledge access, sharing and transfer and enhancing the