ICT for agriculture

Indian farmers are increasingly challenged by climate change, globalized domestic markets, advanced technologies and multitude of policies, there is a need to develop a vibrant agribusiness extension/information system to facilitate them to take appropriate decisions. So far availability of accurate, reliable, timely, comprehensive, cost effective information in an understandable way has been a distant dream for Indian farmers. Comprehensive Agribusiness Extension System under the Digital Krishi Project was designed as a new approach to address the problems of poor yield and high risks in agriculture in the country. The primary objective of this extension system is making agriculture profitable, less risky, and sustainable. The project takes into account all the 5 dimensions (planning, input procurement, production, value addition and marketing) in an integrated fashion to provide inputs in a user-friendly way using Information and Communication Technology (ICT).

The project was implemented in two Taluks: Siriguppa taluk in Bellary District and Navalgund Taluk in Dharwad District. A total of 8000 treatment farmers and 500 control farmers were engaged in the project. The two agriculture universities of Raichur and Dharwad, the implementation partners, appointed local NGO's to oversee the ground operations. Each NGO in turn appointed 20 Raitha Mithras. These RaithaMitras were the field workers who regularly interacted with the treatment farmers. The sample Gram Panchayats were dominated by large land holdings. Major crops of the Navalgund Taluk were Bengal Gram, Cotton and Jowar, and Sirguppa were Paddy, Cotton, Chilli and Jowar. Timely and necessary information was provided by the RaithaMitras to the treatment farmers using a tool called E-SAP. RaithaMitras provided information regarding the best cultivation practices to be followed for a crop in particular agro climatic zones. These best cultivation practices were compiled by the respective agriculture universities. Further using this tool, the RaithaMitras also diagnosed disease/pest infestations in the crops and advised the farmers with necessary inputs and precautionary measures were taken to ensure minimum damage to the crop. More than 12,000 advisories were given. Major pest and diseases were identified, mapped and awareness was created.

After the intervention data on yield and cost of cultivation was collected from the farmers. Observations were recorded and analyzed to assess the impact. It was found that there were significant increase in the yield and reduction in the cost of cultivation

of many major crops after the intervention. There were variations in the yield levels among small, marginal and large farmers. The results were tabulated and presented. This being the first year of extension service, there were several issues that had to be overcome such as selection of farmers, deficient rainfall and a few software problems. Further progress in the project will help in streamlining the extension system further as well as obtaining detailed data which will help in doing finer analysis of the impact, and ultimately help in evolving an effective extension system design.