The MASSCOTE Approach: A New Dimension in Modern Irrigation Management

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Abstract

India has created 106 Million hectares (Mha) of irrigation potential up to the year 2010 through major, medium and minor irrigation projects. Presently, the irrigation infrastructure is expanding by 1.8 Mha per annum, which is one-third less than the maximum growth achieved in the past. This decline phenomenon of creation of further irrigation potential was noticed in the 1980s and mostly the reason was attributed to the reduced investment in the irrigation sector by the Government.

It was observed that, in spite of huge investments made by the Government towards expansion of irrigation potential to meet the increasing demand of the growing population, a portion of the created potentials remained un/underutilized. Realizing the need of a better irrigation management during 1977, Union Govt. launched the Command Area Development (CADA) programme through the state governments. But CADA did not perform the way it was conceived, especially in irrigation distribution and maintenance of the system. By end of Ninth Five Year Plan (1997-2002), there was utilization lag of 14 million ha, out of created potential of 94million ha. This led to the focus improvisation of the existing irrigation management practices and the concept of Participatory Irrigation Management (PIM) was introduced as relevance and importance of participation of user (farmers) in managing irrigation systems was realized. Many states such as Maharastra, Gujrat, and Andhra pradesh including Orissa adopted PIM and are being practiced. But Karnataka State with the cooperation of United Nations (UN) & Food and Agricultural Organization (FAO) adopted the tools developed by FAO Rapid Appraisal Procedure (RAP) and Mapping System and Services for Canal Operation Techniques (MASSCOTE) and implemented on trial basis in six major irrigation projects covering a vast command area of 9.8 lakh hectares and field tested successfully. With the experience gained by FAO in assessing the performance of irrigation projects in Asia and elsewhere and the similar work done by FAO and other world bodies, International Water Management Institute (IWMI), Irrigation Training and Research Center (ITRC), the World Bank (WB) and International Programme for Technology and Research in Irrigation and Drainage (ITPRID), irrigation and drainage paper 63 titled ‘Modernizing irrigation management-the MASSCOTE approach Mapping System and Services for Canal Operation Techniques’ were published by FAO in the year 2007. The functioning of the MASSCOTE system has been explained briefly in this paper. A comparative note of the MASSCOTE system with PIM practiced in few states has also been presented here.

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