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Farmers' Participation for Effective Utilization of Water Resources in Lift Irrigation Schemes in Rainfed Areas - Management Issues and Scope for Improvement

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ABSTRACT : Participation of water users' association in the management of irrigation systems is considered essential, particularly in lift irrigation schemes which are crucial source of augmented water supply in rainfed areas. The present study was undertaken in Amarachinta and Kanuparthy lift irrigation schemes in the state of Andhra Pradesh with the aim of exploring the role of farmer's participation in effective utilization of water resources in lift irrigation command areas and management issues. The study was based on the field data collected from the concerned government departments and farmers of these lift irrigation schemes, located in two different districts of Andhra Pradesh, India. Chosen parameters for assessing the impact of participation of farmers in the management include improvement in water use efficiencies (WUE), irrigation efficiency, project water efficiency, TFV, fee collection performance, sustainability factor of command area, fund flow and utilization etc. The increase in irrigation efficiency was from 46 to 81per cent. It was mainly due to the transfer of management from government to the beneficiary society in Kanuparthy LIS. These two LISs were successfully operated and maintained by beneficiary societies. The beneficiary societies of LISs were financially sound and ready to meet any contingency.

Key words : Lift irrigation scheme, water use efficiency, command area, participatory irrigation management.

Lift irrigation schemes are planned to provide irrigation to rainfed areas which cannot be irrigated by gravity due to their location at a higher elevation in comparison with stream location. These lift irrigation projects assure significant importance in semi arid rainfed regions of India. Lift irrigation projects were conceived, designed and implemented by irrigation department. Over a period of time, with the realisation of importance of on-farm water management, the government has transferred their operation, maintenance etc. to farmers managed water users' organizations under the initiative of participatory irrigation management with a view to enhance the efficiency of the system. National Commission for Integrated Water Resources Development (NCIWRD)- September 1999, has suggested improving overall irrigation efficiency from the present level of 30 – 40 to 50 per cent by year 2015 and up to 60 per cent by the year 2025. Operational irrigation efficiency can be improved by appropriate water allocation, mode of canal operation, minimization of canal seepage losses and improving field irrigation methods. Leveling, land shaping, on-farm development, irrigation through network of field channels, participatory irrigation management (PIM), appropriate training facilities and knowledge about scientific irrigated agriculture are equally important.

Participatory Irrigation management has been identified as a tool for managing command areas of irrigated agriculture. Participation of farmers in irrigation management implies a significant role of water users in decision-making. There are successful examples of Water Users' Associations (WUAs) managing irrigation systems. There are about 26771 WUAs in various forms in various states, with total area of about 5759230 thousand ha.

The prime objective of this study is to assess the improvement of water resource utilization in lift

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