



Research Paper

## Techno-economic change among the beneficiary farmers of Participatory Irrigation Management Society of Mehsana district, Gujarat

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**ABSTRACT :** The Mehsana district of Gujarat state was purposively selected for the study. Among the seven talukas of the district, three talukas viz., Visnagar, Vijapur and Vadnagar were leading talukas for participatory activities carried out by the irrigation department and other institutions. For the selection of talukas, villages/PIMS and respondents, multistage random sampling technique was employed. Total 200 respondents from 20 selected PIMS were selected using proportionate random sampling method. The data were collected by personal interview. Based on the finding of the study, a great majority of the beneficiary farmers were found to have medium to high techno-economic change. The variables viz., education, caste, social participation, socio-economic status, occupation, size of land holding, cropping intensity, annual income, economic motivation, scientific orientation, risk-preference, attitude towards PIMS, knowledge of recommended water management practices, contact with extension agency and utilization of information sources were positively and significantly associated with techno-economic change. Multiple regression analysis indicated that all variables exerted as much as 73.12 per cent of total variation in techno-economic change. The result of stepwise regression analysis indicated that 72.12 per cent of the total variation in techno-economic change was accounted by a set of three variables viz., utilization of information sources, attitude towards PIMS and knowledge of recommended water management practices. Results of path analysis inferred that out of 15 variables analysed 9 variables exerted direct positive effect and 6 variables expressed negative direct effect. The variables viz., utilization of information sources, attitude towards PIMS and knowledge of recommended water management practices, showed highest positive direct effect. With respect to highest indirect positive effect on techno-economic change, the key variables were contact with extension agency, socio-economic status and annual income, while in case of first substantial effect, all above variables were important and were found affecting through variable utilization of information sources.

**KEY WORDS :** Beneficiary farmers, Techno-economic changes

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## INTRODUCTION

Since 1985 Ministry of Water Resources has been inspiring farmers' participation in water distribution and management of tertiary system in the projects covered under the Centrally Sponsored Command Area Development Programme. The concept of involvement of farmers in management of the irrigation system has been accepted as a policy of the Government of India and has been included in the National Water Policy adopted in 1987.

The Gujarat Government had enacted the Gujarat Water Users Participatory Irrigation Management Act, 2007. Gujarat has been giving high priority to PIM and has been systematically promoting, it by facilitating through Government resolutions from time to time since 1980. So far, 576 number of Water User Associations (WUAs) covering an area of 96680 ha. The implementation of PIM in Sabarmati Reservoir Project on June 1<sup>st</sup>, 1995 by Government of Gujarat. The Sabarmati Reservoir Project is one of the major irrigation projects in North Gujarat. The Sabarmati Reservoir Project comprises of two