

**FACTORS INFLUENCING ON THE ADOPTION OF MICRO  
IRRIGATION SYSTEM FOR VEGETABLE CULTIVATION  
AND PROBLEMS ASSOCIATED WITH THE OPERATION IN  
MANMUNAI SOUTH AND ERUVIL PATTU D.S DIVISION**



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## ABSTRACT

Agriculture is the primary livelihood of the population of Batticaloa. Thus, it is clear that improving agricultural productivity is the key to transforming the agricultural sector in a manner that meets the challenges currently faced by the district. Paddy, vegetable and cashew cultivation are playing a major role in the district. Since it is in the dry zone there is a huge problem of water scarcity for cultivation of vegetables and most of the farmers are still adopting the traditional surface irrigation and only few are MIS adopters mainly due to lack of knowledge and capital. One of the technological interventions in agriculture exposed to have substantial impact on water use efficiency is micro-irrigation/precision-irrigation technologies. Micro irrigation refers to a broad range of technologies and water management practices that enable farmers to use their limited water resources in a manner that increases the productivity of water.

In this view, this study was done to determine the factors which influence the adoption of micro irrigation system and the problems they face in practicing the micro irrigation system for vegetable cultivation at 3 major vegetable cultivated G.N divisions namely Kaluwanchikudy, Cheddipalayam and Kalutavalai areas of Manmunai South and Eruvil pattu D.S division in Batticaloa district. A comprehensive field survey was done with 50 MIS adopting farmers and 75 NON MIS adopting farmers using structured questionnaires to collect information. Then the structured questionnaires were further analyzed on the statistical software SPSS for descriptive statistics.

Results indicated that all the selected MIS adopters are also using surface irrigation system at their farm. MIS adopters in the study area are much educated with advanced level of education (54%) and significant percent (36%) of them get an income level of Rs 30000-40000 which is greater than NON MIS adopters (13.3%).

As far as the MIS adopters are concerned, 100% of farmers are using sprinkler system only. It is also revealed that crop cultivated under MIS is very less than the areas irrigated with NON MIS. Reducing the labor cost (14%), supports given by NGOs (20%), increasing the yield (12%), reducing water demand (8%), wide extension services (8%) were the reasons behind their shift from NON MIS to MIS. Less labour requirement and cost, high water efficiency are experienced by most of the MIS adopters. However, high initial cost for installation and maintenance, poor water quality were the major disadvantages for MIS adopters in the study area. Regular extension services, training programs and supply subsidies for establishing MIS will motivate the farmers in the adoption of MIS in the study area.

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