

**ADOPTATION OF MICRO IRRIGATION SYSTEM FOR
VEGETABLE CULTIVATION IN POLONNARUWA
DISTRICT**

By

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ABSTRACT

Agricultural sector is the largest consumer of water for the productivity as well as the economic enhancement of the country. Nowadays, the demand of water has been consistently increasing from various sectors like municipal use, industrial activity etc. with the adaptation of different ways of irrigation in order to satisfy the demand highly in dry zone. Among the all dry zone located in the Sri Lanka, Polonnaruwa District is one of the largest area used mainly for Agricultural purpose. The dominant method of irrigation practiced in Polonnaruwa District was surface irrigation. Micro-irrigation, which includes both drip and sprinkler method of irrigation, Micro-irrigation (MIS) is proved to be an efficient method in saving water and increasing water use efficiency as compared to the conventional surface method of irrigation.

The study was designed to find adaptation of micro irrigation system for vegetable cultivation in Polonnaruwa District with five different DS Divisions named Thamankaduwa, Hingurakgoda, Lankapura, Medirigiriya and Elahara including 20 GN divisions. The simple random sampling technique was used to draw the sample with the size of 150 where the structured questionnaires was used for further analysis on the statistical software SPSS for percentage. Around 17.3% of farmers adopted MIS with advanced level of education (57.7%). Most of MIS adopted farmers' family income (Rs.20,000-Rs.30,000) was higher than the MIS not adopted farmers (Rs.10000-Rs.20000). Most of MIS adopted farmers were vegetable cultivation in both season (65.4%) and their yield was increased (65.4%). Higher initial cost (Rs.150000 per 1ac) was major disadvantage of them (52.1%). Most of MIS adopting vegetable farmers achieved benefits through MIS (88.5%).

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