

# Paddy Farmer's Satisfaction and Problems Associated with Mahavilachchiya Tank Irrigation in Anuradhapura District

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**Abstract**— Paddy farming is a direct source of income for the majority of the rural farmers in Sri Lanka. To get higher income from the agriculture sector, irrigation plays a vital role in improving the productivity. Therefore, farmer's satisfaction in utilizing the particular irrigation scheme could be considered for the assessment of the performance. In this view, an investigation was instituted to determine the satisfaction level of the farmers related to the Mahavilachchiya tank irrigation systems. To achieve this target, primary and secondary data were used in this study. Pre-tested, structured questionnaires were used to collect primary data through personal interviews during the period of October, 2015 to February, 2016. Stratified simple random sampling method was used and 150 farmers were selected from seven farmer's organization in the Anuradhapura District. The results of the study indicated that, 57% of the respondents involved in paddy cultivation as a full time occupation. Most of the farmers were involved in paddy cultivation in both Maha and Yala season. Average land extent owned by the farmer was 2.4 ac. Study further revealed that, tank water used for various purposes like irrigation, bathing, washing, drinking, cooking, livestock rearing and cleaning. Poor canal distribution (57.3%), problems due to unseasonal cultivation (2%), damaged distribution channels in many places (99.3%), poor attention in channel repairs (95%), misbehavior of farmers in water distribution (97%) and lack of maintenance on tank bunds and canal system (73.3%) were some of the problems reported by the farmers in the study area. As far as the knowledge on efficient water use is concerned, nearly 43% of the farmers were aware about the water use efficiency. It was also found that 62% of the farmers were satisfied with the use of tank water for irrigation at 51%-75% satisfaction level. It was also observed that head, middle and tail end farmers were satisfied on the use of canal water for domestic purpose at the satisfaction levels of 100%, 100% and 73% respectively. The knowledge on the water use efficiency, repairing of damaged canals, distribution channels and regular cleaning of channels could save some water and thus, increase the extent of cultivation in the study area.

**Keywords**— Canal irrigation, Irrigation scheme, Mahavilachchiya tank, water use efficiency.