

A study on Water Management Issues in the Eastern Slopes of Central Highland Region, Sri Lanka

*Hewage¹, S., Bandara¹, S., Samarasinha¹, G. and Munaweera¹, T.

¹Environmental and Water Resources Management Division, Hector Kobbekaduwa Agrarian Research and Training Institute, Sri Lanka

*Corresponding E-mail: ashanthah@gmail.com shantha.w@harti.gov.lk

Agriculture is the single most activity that consumes the largest portion of available water resources in Sri Lanka. Industrialization, population pressure and urbanization have also resulted in a rising demand for water leading to water use issues in the country. Climate-vulnerable localities with varied and large number of water uses and water user groups are much prone to water-related issues. The present study attempts to ascertain the water use related issues in the climate-vulnerable Eastern slopes of the central highlands. To collect primary data, a questionnaire survey was administered for a total of 357 farm households in the *Kurunduoya* and *Beliuloya* river basins in the Nuwaraeliya district. In addition, information was collected from different stakeholders in the agricultural and other sectors, and the estate communities. Land use change analysis revealed that over the past four decades, the settlements (133%) and market gardens (43%) where the cash crop cultivation is intensively undertaken have significantly increased by converting marginal tea lands, scrub lands and the stream reservations in the mid and upstream areas of the *Kurunduoya* basin. Absence of a mechanism for fair allocation of water among a large number of water users have made the communities in the downstream areas disadvantageous. Thus, the cultivation extent of irrigable lands in *Yala* seasons has diminished by 27% and 16% in minor and major irrigation areas respectively. The increased and non-regulated water use in upstream areas has been threatening the primary source of income and household food security of the communities in the downstream. Adequate interventions by government authorities and the mediation by the plantation management with the involvement of farmer organizations and community leaders in the plantation sector have a major role in planning and execution of appropriate water management mechanisms at different water user groups along the river basin and the slope for a fair allocation of water among different water user groups.

Keywords: Central highlands, Eastern slopes, Land use, Water allocation