



## **Socio-hydrological implications of water management in dry zone of Sri Lanka**

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Sri Lanka is an agricultural country where proper water management plays a vital role on the economy of the country as well as on living conditions of people. Both government and non-governmental organisations contribute to water management in Sri Lanka. The land of Sri Lanka consists of a wet zone, dry zone and small arid area. This study is performed in five areas within the dry zone to identify the socio-hydrological factors which could be used to implement integrated water resources management (IWRM) in the zone. The study includes a comprehensive analysis how the factors such as household economies, demographics, level of education, unemployment, and access to information directly or indirectly affecting on water usage, purification and disposal methods and vice versa. The economy of the dry zone is quite different from Sri Lanka's capital Colombo area or wet zone and the average household income is just above the poverty line. People consume water mainly for domestic use while about 20% is used for agriculture, industries and livestock. The main source of water is dug wells for rural areas and pipelines for urban areas while about 20% use tube wells. Since the usage is mainly domestic common purification methods are boiling or filtering. However, about 45% do not use any purification method. Within the studied five areas, the daily household water consumption is within the range of 250- 1000 litres with average around 500 litres. The mostly used water disposal method is unpaved drains which provides a low ability to recycle. The socio-hydrological study shows a direct relationship between household economy and water consumption. Although demographic parameters do not show a direct correlation to water consumption there is a proportionality to the household size. Factors such as education, access to information and unemployment do not affect the consumption much, however, they are affecting the disposal and purification methods. This study analyses the amount of correlation of these factors while analysing the reasons behind the outcomes.