

Economic status of rural households with rain water harvesting systems (A case study in Monaragala District)

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Water scarcity is one of the major problems particularly for the rural households in the dry zone of Sri Lanka. It is believed that Rain Water Harvesting (RWH) may be a solution for this problem. As a result the rural households were provided the RWH structures to collect and store the rain water. The objective of this study was to assess the economic benefit of rain water harvesting. Questionnaire survey was conducted among randomly selected forty five rural households at Siripuragama GN division in Monaragala district during September to December, 2014. The data of time taken for water collection during non-rainy season, usage of Rain water harvesting system (RWHS), quantity of harvested rain water and the income earned by cultivating crops using Rain water harvesting were collected from the respondents. The results revealed that the women saved 26 man days whereas the men 16 man days and the children saved 70 hours per annum by using RWHS. Further an income earned by cultivating crops using harvested rain water and the reduction in the charges for the electricity due to rain water harvesting were assessed and considered to be an additional income for the households due to RWH. Well water consumers who had RWHS saved SLRs. 30505 (US\$ 227) while non 'Samurdhi' beneficiaries of pipe born water consumers saved the SLRs.13046 (US\$ 97) and 'Samurdhi' beneficiaries of pipe born water consumers saved SLRs.12341 (US\$ 92) per annum. Installation of RWHS not only improve the economic status of the rural households but also conserve the water resource, hence it could be a win solution to the society and the environment.

Key words: Economic return, Economic valuation, Rain water harvesting, Rural household.