

**SUSTAINABILITY OF HOUSEHOLD RAINWATER
HARVESTING SYSTEMS IN AMPARA DISTRICT**

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A Dissertation submitted to the Department of Management Studies in the Faculty of Humanities and Social Sciences of the Open University of Sri Lanka in partial fulfilment of the requirement of Commonwealth Executive Master of Business Administration Degree.

2009

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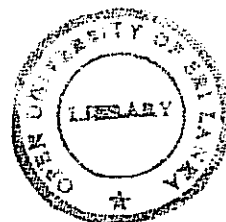
Abstract

The Tsunami wave on the 26th December 2004 claimed an estimated 11,000 lives and 45,000 families (7.5% of the population) from the costal areas in Ampara District were made homeless. Considerable amount of tsunami-affected people were resettled in government lands where the facilities for traditional safe water supply are not available. This has put a great strain on the authorities as well as the households on providing/obtaining safe water for domestic needs. Hence, government authorities and the humanitarian organizations introduced the rainwater harvesting system (RWHS) as an alternative option to provide safe water to the resettled families but the households reluctant to accept it. Based on the field visits and the random survey, it was identified that more than 70% of the tanks were empty within a month time from rainy season and around 5% of the tanks were abandoned. Moreover more than 60% of the people expressed reluctance to drink the rainwater, around 5% of the people complained about the quality of the construction and functioning of the RWHS, and two third of the household mentioned about the a reduced amount of rainfall which is insufficient for continuous consumption.

Therefore, this research was carried out to examine the facts related to the sustainability of rainwater harvesting system. Two key factors such as perception usage of the people of Ampara district regarding rainwater harvesting, and the ability and practices of households on operation and maintenance of RWHS were covered in this research.

Data was collected through the desk review and questionnaire survey including observation. The desk review gave the fair idea of the project background, physical progress, population and the activities of the project. A questionnaire formulated to collect the information required related to this survey. The questionnaire includes Personal Details, RWHS details, Perception of the Household on RWHS, Usage of RWHS, Skills on O&M and external monitoring of the system.

Research reveals that the rainwater users were satisfied with the technology since they have access to better quality water and improved water security. However there is no much demand for RWHS among the community. Further most respondents perceive the system as a temporary solution and promoting RWHS as an alternative option for drinking would still have certain barriers with respect to the social beliefs and attitudes.



Sustainability of Household Rainwater Harvesting in Ampara District

Further, even though the effective utilization of RWHS is around 42% as per the survey, observations during the survey shows that only 13% of the systems were functional two months after the rainy season. In addition to that even though the knowledge and ability of household on operation and maintenance of RWHS high among the users, considerable percentage of the community do not practicing it properly.

It may possible to overcome above findings through a special attention on selection criteria and conducting attitudinal changing programmes for the community groups in a careful & logical manner. Further awareness campaign on conservation and sparing use of stored water could be conducted and it is advisable to have a mechanism within the community to discuss the problems and motivate the households in terms of necessity and benefits of RWHS.

In addition to that, a participatory methodology should follow to ensure the active involvement of government and non-government local partner organizations, CBOs, and beneficiaries in all-important aspects of the project cycle. In each stage, women's participation and their involvement in decision-making should be given due consideration.

