

**STUDY ON THE SUSTAINABLE USE OF RUNOFF HARVESTING TANKS
IN SMALL HOLDER FARMING SYSTEM IN VELLAVELLI AREA OF
BATTICALOA DISTRICT**

BY

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ABSTRACT

Water is an essential natural resource for sustaining life and environment. The available water resources are under pressure due to increasing demands and the time is not far when water, which we have always thought to be available in abundance and free gift of nature will become a scarce commodity. Conservation and preservation of water resources is urgently required to be done. Water management has always been practiced in our communities since ancient times but, today this has to be done on priority basis.

In Sri Lanka, districts that are in dry zone face severe drought in dry season and heavy flood and in rainy season. Coastal areas face difficulties in quantity of water for irrigation, livestock rearing activities and quality of drinking water as seasonal water scarcity prevails due to drought. The Vellaveli area has limitation in availability of water for irrigation and livestock rearing activities. Hence, it is very essential to harvest runoff water during rainy season. Runoff water harvesting is the intentional collection of rain water from a surface and subsequent storage in order to supply water during the time of demand. Runoff water harvesting is essential in view of the fact that rainfall which, is a source of fresh water occurs in very short spells and runoff as a waste unless arrangements are made for its storing. Main source of irrigation development are dams and canals. Other option and are water harvesting structures such as ground water development, surface minor irrigation systems, watershed development and so on.

Therefore, this study was concentrated on acquiring relevant information from rural community and sustainability of runoff water harvesting tank in Vellaveli areas of Porathivu Pattu Divisional Secretariat division.

Information were gathered from small hold farmers who are using runoff water harvesting tank. The survey covered 100 farmers. Stratified Random Sampling method was used in this survey and data were analysed using Statistical package for Social Science (SPSS).

It was found that water scarcity mainly depended on the extent crop area, livestock number, family size and water use pattern. Lack of awareness and another water source in the same land were the main reasons for rejecting runoff water harvesting system. The capacity of runoff water of existing tanks is insufficient to store runoff water to meet water demands for irrigation and livestock rearing activities throughout the year for the farmers who have number livestock and crops and use for multi purposes. It was recommended that proper awareness should be developed in areas before implementing runoff water harvesting tank and the people should be trained about the operation and maintenance of runoff water tank after construction.

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