Usability of Harvested Rain Water in Drinking Purposes

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Abstract

Proper management of rain water is a solution for the water scarcity in dry zone. Rainwater is one of the purest sources of water available, as it does not come into contact with many of the pollutants often discharged into local surface waters. It comes free and can be used to supply both potable water and non-potable water. However, it has tendency to contact with pollutants depending on the mode of collection. This research investigates the usability of harvested rain water for drinking purposes.Twenty samples from Uva province and twenty samples from South-West coastal area were collected. Chemical analysis of collectedwater samples was conducted. Sixteen standard water quality parameters which are most considered in drinking, were determined.In Badulla district water samples 65% are suitable for drinking. 35% are not in permissible level for some parameters. About 69% of the water samples collected from South-West coastal area aresuitable for drinking, according to Sri Lanka drinking water quality standard. Therefore 31% water samples are not recommended for drinking as some tested parameters exceeding permissible level. Around 66% of total water samples satisfy the standards imposed by SLSI. Therefore, they can be recommended for drinking purposes. Even about 34% of water samples are not in permissible level, they can be used after preliminary water treatments in domestic level.