ABSTRACT

Climate change has become a phenomenon everyone faces in their day-to-day life, and not what was read in newspapers, articles and climate reports previously. This daunting challenge necessitated the purpose of this study where rainwater harvesting was thought of as a way to alleviate the effects of climate change, specifically to provide every human being with clean, safe drinking water for domestic uses. The study's main objectives were to investigate the physical, chemical and biological qualities of harvested rainwater, investigate the type of storage used to store harvested rainwater and investigate how their condition, operation and maintenance influenced the harvested water's quality. The researcher proceeded to do the sample collection for ten sampling points throughout three times and tested the aforementioned parameters of drinking water quality. The samples collected and tested were a representative of the study area. It was discovered that the rainwater in the study area was within the limits recommended by WASREB and WHO for drinking and bottled water. However, it is important to note that some sampling points needed to do disinfection of the harvested rainwater, to make it safe for consumption. Moreover, it was noted by the researcher that routine maintenance of the conveyance systems and storage facilities for rainwater contributed greatly to the availability of safe drinking water. From the findings of the study, the harvested rainwater was deemed safe for drinking and domestic use. It was concluded that the objectives of the study were successfully achieved and several recommendations were made to further the cause of providing safe drinking water for everyone cheaply and easily. The recommendations include making the general public aware of the benefits of rainwater harvesting as a cheaper alternative to substitute piped water for their consumption, regular cleaning of their RWH systems to reduce the occurrence of contamination in stored water, providing cheaper alternatives through new technologies for people who do not have large sources of capital to do conventional installation of RWH systems and urging the government to provide incentives to companies and those who do take up rainwater harvesting. Climate change is here to stay and therefore, the earlier RWH is adopted, the better all humans will cope with the effects of climate change in the future.