

Despite the known advantages of the rain water harvesting technologies, studies show that the utilization rate at community level continues to be lower than expected. The current study focused on socio-economic factors influencing the utilization of rain water harvesting technologies in Kauwi sub-location, Kitui County, Kenya. The study adopted a survey design. Random sampling was used to identify the villages while households were systematically selected. A total of 160 households comprised the study's representative sample size from which interviews were conducted. From the results, 60% of the variation of utilization of earth dams was explained by the outcome variables (Nagelkerke  $R^2 = 0.6$ ). Scrutiny of the results indicated that labour source ( $p < 0.1$ ,  $B = 2.66$ ) and access to credit ( $p < 0.1$ ,  $B = 5.44$ ) were the significant factors influencing earth dam utilization. The study concluded that different factors influenced utilization of different technologies differently. Findings of this study will help farmers in prioritizing factors that influence decision on utilizing rain water harvesting technologies.