

Abstract

Land degradation adversely affect agroecosystems and agricultural productivity, resulting in food insecurities. It also plays a role in accelerating climate change effects. There has been a critical on-site and off-site land degradation structures in selected Arid and Semiarid Lands (ASALs) of Kenya. Such ASAL areas include Rombo and Mondambogho watersheds in Kajiado and Taita Taveta Counties respectively, and this has subsequently resulted in a decline in land productivity. The interaction of continuous land cultivation, over-grazing and influence of climate change without appropriate soil and water conservation (SWC) has accelerated the problem. This paper presents a critical review of land degradation alongside soil and water conservation in the two watersheds. The objective of this research was to evaluate the status of SWC practices in the two watersheds. It was found that the two watersheds experience both on-site and off-site soil erosion due to poor agricultural land use practices. As such viable research and solutions needed for sustainable soil and water conservation are highlighted. It is recommended that mechanized SWC techniques should be employed for the two case studies for increased land productivity, food and nutritional security in these areas.