

ABSTRACT

The study was undertaken to determine rainfall variability and droughts in arid and semi-arid lands (ASALs) of Baringo County. The study used rainfall data for Perkerra Agricultural Research Station (LM5) and Nginyang rainfall station (IL6) for the period 1970-2008 and 1974-2013 respectively. Standardized anomalies were calculated and plotted to establish trends of drought events across the study period. Plots of rainfall data from the two stations displayed an oscillating trend with major rainfall peaks being observed in 1977 and 2007 for Perkerra, 1982 and 1997 for Nginyang. Analysis of rainfall data from the two stations indicates four catastrophic drought periods recognized with standard anomalies of less than -0.9 ($SA(t) < -0.9$) as a function of the time scales. The study findings reveal that MAM seasonal drought index plots for both Perkerra and Nginyang rainfall stations had a declining long-term MAM seasonal rainfall trend. Perkerra OND Seasonal Drought Index plot indicates a constant trend in the long-term OND seasonal rainfall while Nginyang long-term OND seasonal drought trend shows a gentle upward trend, an indication that the conditions are improving. The study recommends the strengthening of uptake of seasonal climate forecast to inform appropriate decision making regarding response to rainfall variability and drought events.

Keywords

Drought, Standard Anomalies, MAM Rainfall, OND Rainfall