

Abstract

The arid and semi arid lands (ASALs) constitute over 80% of Kenya's landmass. They have a harsh environment characterised by low rainfall and high temperature. About 20% of Kenya's population live in the ASALs and the population is continuously rising due to migration from the high potential areas, where there is high population pressure. The inhabitants of the southern ASALs comprise of pastoralists, who mainly depend on livestock, and agro-pastoralists, who practice mixed farming. The southern ASALs suffer frequent droughts which occasion crop failure, famine and poor pasture growth, leading to high livestock deaths. Due to unreliability, rainfall onset and distribution are issues of major concern to the communities in the area, where scientific weather forecasts are not well understood by the local farmers, who have their own knowledge of forecasting rainfall occurrence. However, the local knowledge has not been documented or assessed for reliability or adoption for general use. This study was undertaken to collect information on forecasting methods used by the Kamba community, who are an agro-pastoral community in the ASALs of lower south Eastern Kenya. The data was collected in a purposive survey of 36 individuals who use the knowledge to plan their farm activities. The results showed the community uses a wide array of rainfall indicators, mostly plants, insects, astronomical objects and meteorological factors, among others. The indicators are mainly used to forecast rainfall onset or the nature of seasonal rainfall. Some of the indicators, like those based on plants are easier to understand while others like those using astronomy require experience to follow. There were some inconsistencies in the information given by farmers relating to the phenological sequence of events for some indicators. Nevertheless, the general indicator value was maintained and farmers expressed great faith in them for planning farm activities. The reliance on this knowledge is a hindrance to uptake of scientific forecasts. There is therefore need for scientific validation of these indicators so that if found reliable, they could be improved for wider use and integrated in scientific forecasting.