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Title: Relationship between North Atlantic Oscillation (NAO) and Rainfall in Kenya

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Abstract:

Rainfall performance and variability are the major problems that affect many socioeconomic activities in Kenya. Kenya lies on the equator at latitudes 0, 35 N and longitudes 34 E, 35 E. ^M

Few regions in Kenya play a crucial role in rain fed agricultural production that sustains almost of its economy. The variability of rain in these regions, which peaks twice in a year, during March-April-May and September-October-November, determines food supply and security for the country. ^M

The Atlantic Ocean, just like the other Oceans, plays a significant role in the systems that result in rainfall activities in many parts of the world. However, few studies have been done to understand the contribution of the Northern Atlantic Ocean, unlike other Oceans such as Pacific and Indian, on the rainfall variability in Kenya. The main objective of this presentation is to determine if a relationship exists between the North Atlantic Ocean Oscillation Index (NAO) and the rainfall variability over Kenya. Whether the same can be considered in statistical seasonal forecasting models in Kenya. The study utilizes data from Kenya Meteorological Department, and NAO Index for the period 1960-2012. ^M

The result of the correlation shows that there is a significant correlation between the rainfall received in Kenya and the December-January-February NAO index values. ^M

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