

Dynamics of abrupt climatic change over the climate regions in Nigeria.

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The paleoclimate record of past environmental change clearly shows that the instrumental record contains only a subset of possible climate system behavior. This is highlighted, for example, by paleoclimatic evidence that the climate system repeatedly switches, in a matter of years to decades especially between significantly different climatic modes.

Climate change is overviewed over the climate regions in Nigeria using a 47 years (1961 – 2009) climatological data of air temperature (0600 utc – 1400 utc) minimum and maximum temperature and relative humidity (0900 utc) for forty five stations.

The climatic regions are Sahel savannah, Sudan savannah, Guinea savannah, tropical rainforest and mangrove swamp. The result generally showed increased in temperature over the decades and decrease in relative humidity.

In conclusion, although the significance of past abrupt climatic changes is heightened by the fact that they cannot be studied using instrumental data, and because their origins are poorly understood. Careful work is needed to map out the spatial – temporal patterns of change associated with past abrupt events that occur in the climatic regions in Nigeria, how to determine their causes, and also how to determine if they are predictable.