

Trend and Variability Analysis of Rainfall and Temperature Trends in Ilorin Metropolis, Kwara State, Nigeria

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ABSTRACT Rainfall and temperature are the most important physical parameters that influence climate. This paper examines the trend and variability of rainfall and temperature of Ilorin township in Nigeria between 2010-2018, using standard statistical descriptors. Rainfall had an increasing trend (positive slope value of 5.30), moderate precipitation concentration index of 12.15 percent and extremely high degree of variability with a coefficient of variation ranging between 33.54 percent and 155.73 percent. Temperature also had a slight warming or increasing trend (positive slope value of 0.012) with minimal degree of variability of coefficient of variation between 5.49 percent and 7.31 percent. The oscillating structure of both rainfall and temperature anomalies further confirm yearly fluctuations as well as change in the distribution and characteristics. It is recommended that government and non-government agencies should formulate plans and policies that will accommodate changes in rainfall and temperature patterns to successfully manage the environment.