



TRENDS ANALYSIS OF MONTHLY WIND SPEED AND RELATIVE HUMIDITY OF HADEJIA, A WATERSHED OF KOMADUGU-YOBE BASIN, NIGERIA

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ABSTRACT

This paper presents trends of wind speed and relative humidity (climatic parameters that have effect on evaporation of an area) of Hadejia town, a watershed of Komadugu-Yobe Basin, Nigeria with the aim of revealing downward or upward trends of the variables. Non-parametric Mann-Kendall test and Sen's Slope Estimate were employed to analyse the trends exhibited by the variables. The results obtained show an increasing trend of 1.72 ms⁻¹/decade in annual time series data of wind and decreasing trend of 39.32% per decade in that of relative humidity in the area. It is concluded that there is variability in trends of relative humidity with annual trend of wind increasing and that relative humidity decreasing at confidence level greater than 90% a condition that will favour increase in rate of evaporation of the area.

Keywords: Climate Change, Mann-Kendall, Sen Slope, Water Resources

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