



## *A REVIEW*

# Rainfall trend analysis

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**Abstract :** This article aims to review studies pertaining to trends in rainfall, rainy days over India. Non-parametric tests such as Sen's Slope were used as estimator of trend magnitude which was supported by Mann-Kendall test. The findings of various studies indicate variance with respect to the rainfall rate, which contributes to an uncertain picture of the rainfall trend. In the study of monsoon of different locations in India some places showed increasing trends however, there is signifying decrease in trend all over India. It was also mentioned that analysis can vary from for a location if done using different source or types of collection of data. Spatial units range from station results and sub-division to sub-basin/river basins for trend analysis. The outcomes of the different experiments vary and a simple and reliable picture of the trend of rainfall has not appeared. While there can be a non-zero slope value for the multiple units (sub-basins or sub-divisions), few values are statistically important. In a basin-wise trend analysis report, some basins had a declining annual rainfall trend; at a 95 per cent confidence stage, only one basin showed a strong decreasing trend. Out of the six basins exhibiting a rising trend saw a major positive trend in one basin. Many of the basins have the same pattern direction on the annual and seasonal scale for rainfall and rainy days.

**Key Words :** Climate change, Rainfall, Trends analysis, Intensity, Monsoon, Seasonal analysis

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