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Precipitation and Rainy Day Trends in Kashmir Valley, Jammu & Kashmir, India

Latief Ahmad and Sameera Qayoom

Agromet Field Unit-Srinagar, Division of Agronomy, Faculty of Agriculture Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Shalimar-190 025, India E-mail: drlatief_skuastk@hotmail.com

Abstract: The aim of the present study is to analyze rainfall time series over a period of 38 years (1980-2017) in Kashmir valley. The study analyzed annual trends in rainfall and rainy days at seven major districts of Kashmir Valley namely Srinagar, Budgam, Baramulla, Anantnag, Kulgam, Pulwama and Kupwara to interpret trends in precipitation over the Kashmir Valley. The time series of rainfall and rainy-day trends were analyzed using parametric linear regression and non-parametric Mann-Kendall tests. The magnitude of the trend was quantified using Sen Slope index. No significant variation was observed in rainfall and rainy days in Srinagar, Budgam, Anantnag, Kulgam and Pulwama districts. A significant decreasing trend was observed in the annual rainy days of district Kupwara and both annual rainfall and number of rainy days showed a significant decreasing trend for district Baramulla. The results obtained from the analysis suggest that there has been no significant change in the climate of Kashmir valley over last 38 years

Keywords: Rainfall, Rainy days, Linear regression, Mann-kendall, Temperate region