PROJECT REPORT

SPATIAL AND TEMPORAL ANALYSIS OF RAINFALL

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Abstract

Among the climatic elements the rainfall is the first index, ever through off by formers and climatic analyzers as it is the most important single factor which determines the cropping pattern of an area in general and the type of crop to be cultivated and its success or failure in particular. Therefore, the present study deals the rainfall characteristics of the Chikkmagalur, Belur and Mudigere taluks, which includes the spatial distribution and variability through different seasons. The study is based on 35 years of the daily rainfall data of 40 rain gauge stations. While analyzing the long term average of monthly and annual rainfall, the annual rainfall of the study area is 1769.48 mm, of which the pre-monsoon, monsoon, post-monsoon and winter record 176.94 mm, 1327.11 mm, 212.33 mm and 53.08 mm respectively. The stations of Western Ghats (Kottigehara, Hanbalu and Kudremukh) receives the highest rainfall, whereas Halebeedu, Hagarae, Belavadi and Kalasapura records the lowest rainfall.the south, southwest and northwestern parts of the taluks experience the heavy rainfall whereas the least rainfall areas are the east, northeast and southeastern parts of the taluks. The study proven that the wind ward of Western Ghats region, the highlands receives more rainfall than nearby lowlands, especially in their wind ward sides as a result of orographic lifting characteristics.

Keywords: Annual and seasonal rainfall, rainfall variability, Precipitation.