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CLIMATIC GRADIENT AND HYDROMETEOROLOGICAL CHARACTERIZATION: STUDIES FROM THE CAUVERY RIVER BASIN SOUTH INDIA

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ABSTRACT

Humid, transition or sub-humid and Semi-arid lands are characterized by a combination of high temporal variability in rainfall and spatial heterogeneity of Hydro meteorological properties. As a consequence, presence of decadal variations in rainfall along with temporal variations will impact on groundwater extractions for irrigation requirements and their hydrological regime. In addition, during the past half century, changes have occurred in most semi-arid lands in the southern India agricultural abandonment and consequently a change in land use. In order to investigate the hydro meteorological consequences of such abandonment, three representative field sites on contrasting climate were instrumented additional field observations, experiments and secondary data simulations were performed to characterize the watersheds. A summary of the first long term results of analyses of rainfall, Temperature Evapotranspiration wind speed and other hydro meteorological variables are analyzed in climosequence zone at micro catchment scales is presented here.

KEYWORDS: Rainfall Variability, Climosequence, Hydrometeorology and Characterization of Watershed