## B-90 Long-term trends in the rainfall of Central dry zone

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Rainfall is the most important climatic factor in dry zone agriculture. Uncertainty and variability of rainfall made agriculture a risky enterprise in the dry zone. Analysis of rainfall is important for decision making in farming practices but inconsistency of rainfall trends could make application of such analysis less meaningful. Study of long-term rainfall data is therefore, essential to adjust agricultural activities accordingly.

Daily rainfall records avaiable at Maha Illuppallama for the period from 1905 to 1996 were used to determine (a) occurrence of dry spells, (periods of consecutive rainless days), (b) temporal distribution of rainfall, (c) long-term trends of monthly, seasonal and annual rainfall, (d) cyclic patterns of moving averages, (e) trend of annual dryness (length of period in year where monthly rainfall is less than 100 mm) and (f) on-set trends of seasons.

Results showed that the period from June to September could consist of a dry period of 40 days with a frequency of twice in 3 years. The annual dryness has increased from 115 to 180 days. Rainfall at 75% probability in Maha season has decreased at an average rate of 3.4 mm/year. The on-set or the occurrence of first rain spell of Maha rains was found advancing from the first week of October towards second week of September while increasing the rainfall in September from 5 to 42 mm. Yala rains have reached a stable level of 300 mm while showing a progress towards the second week from latter part of March. 15 year moving average analysis indicates a tendency of receiving high seasonal rainfall in forthcoming years.