Rainfall Variability and the Trends of Wet and Dry Seasons: An Analysis in Batticaloa District, Sri Lanka

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Rainfall is the primary importance to the both physical and cultural landscape of any region. The objective of this study is to find the trends for rainfall variability on climate change in Batticaloa District of Sri Lanka by analyzing 146 years monthly data of rainfall received during the period 1869-2014 from meteorological station of the Department of Meteorology. The annual rainfall varies from 864 mm to 3081 mm distribution, which has sight variation throughout the district. Statistical analysis such as linear and standard deviation for 3 years, 5 years, 11 years and 21 years were utilized to examine periodic rainfall changes in both annual and seasonal contexts. Some studies attribute such extreme events to rainfall variability on climate changed induced by global warming. However, there is a dearth of climatological studies addressing the trends in rainfall over Sri Lanka in support of such attribution. The study finds that the 3, 5 years moving average had shown high drier season but the 11, 21 years moving average had shown the higher wet seasons of the years. The changes of rainfall caused to the disasters as flood and drought. The rainfall is annually and seasonally imbalanced in each other periods.

Keyword: Rainfall variability, wet-dry, meteorology, flood

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