



RESEARCH PAPER

Assessment of meteorological drought for Malegaon in Nasik district of Maharashtra

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Abstract : Rainfall is the most important natural hydrologic event and is a unique phenomenon varying both in space and time. About 80% of India's rainfall is received in monsoon season, although it is unpredictable. In certain areas, it falls more than, is necessary or over the yearly normal, which leads to situations like flooding and waterlogging. Similar to this, there are instances where the precipitation is so little or below the yearly average that it causes a drought-like situation. The primary cause of drought is an inadequate amount of rainfall. This analysis focuses on the assessment of the meteorological drought for Malegaon in the Nasik district of Maharashtra using 57 years (1966–2022) of rainfall data. The drought analysis on an annual basis indicated that, the drought, normal, and wet years were found to be 9.37, 68.75 and 21.87 per cent, respectively. Analysis of monthly rainfall indicated that, the drought, normal and wet months were observed to be 48.43, 38.80, and 12.76 per cent, respectively. As a result, the study suggests that, there appears to be more of a drought when looking at short-term weekly or monthly rainfall data. 15 years of the 57-year study period had moderate drought intensity, 14 years had mild drought intensity, 1 year had severe drought intensity, and the remaining 27 years had no drought intensity, according to the analysis. Throughout the course of this investigation, no particularly severe drought was noted in the study area.

Key Words : Rainfall analysis, Meteorological drought, Drought intensity, Drought year

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