

An Extensive Review Of Drought Indices

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Abstract : Drought can arise from several hydrometeorological phenomena that result in insufficient precipitation, soil moisture, and surface and groundwater flow, leading to conditions that are considerably drier than the usual water content or availability. Drought is often assessed using indices that are associated with meteorological, agricultural, and hydrological phenomena. In order to effectively handle drought disasters, it is essential to accurately determine the kind, intensity, and extent of the drought using drought characterization. This information is critical for managing the drought before, during, and after the rehabilitation process. Over 120 drought assessments have been created in literature to evaluate drought disasters, encompassing a range of factors and variables. Some models utilise solely hydrometeorological drivers, while others employ remote sensing technology, and some incorporate a combination of both. Comprehending the entire notion of drought and taking into account drought indices along with their calculation processes are crucial for researchers in this discipline. Examining several drought metrics in different studies requires additional time and concentration. Hence, it is crucial to conduct a thorough examination of approaches used in drought indices in order to identify the most straightforward approach to avoid any discrepancies in numerous scientific studies. This study provides a comprehensive assessment of various drought indices, analysing their types and computation methodologies in a detailed and systematic manner.

Keywords : drought classification, drought severity, drought indices, agricultur, hydrological

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