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Critical Appraisal of Different Drought Indices of Drought Predection and Their Application in KBK Districts of Odisha

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Abstract : Mapping of the extreme events (droughts) is one of the adaptation strategies to consequences of increasing climatic inconsistency and climate alterations. There is no operational practice to forecast the drought. One of the suggestions is to update mapping of drought prone areas for developmental planning. Drought indices play a significant role in drought mitigation. Many scientists have worked on different statistical analysis in drought and other climatological hazards. Many researchers have studied droughts individually for different sub-divisions or for India. Very few workers have studied district wise probabilities over large scale. In the present study, district wise drought probabilities over KBK (Kalahandi-Balangir-Koraput) districts of Odisha, India, Which are seriously prone to droughts, has been established using Hydrological drought index and Meteorological drought index along with the remote sensing drought indices to develop a multidirectional approach in the field of drought mitigation. Mapping for moderate and severe drought probabilities for KBK districts has been done and regions belonging different class intervals of probabilities of drought have been demarcated. Such type of information would be a good tool for planning purposes, for input in modelling and better promising results can be achieved.

Keywords : drought indices, KBK districts, proposed drought severity index, SPI
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