2.12 Standardized precipitation index (SPI)

This index is developed by: McKee, et al. The SPI is an index based on the probability of precipitation for any time scale. Many [20] drought planners appreciate the SPI's versatility. The SPI can be computed for different time scales, can provide early warning of drought and help to assess drought severity, and is less complex than the palmer drought index. It understands that a deficit of precipitation has different impacts on groundwater, reservoir storage, soil moisture, snow pack, and stream flow. The SPI was designed to quantify the precipitation deficit for multiple time scales.

SPI values

2.0+	extremely wet
1.5 to 1.99	very wet
1.0 to 1.49	moderately wet
-.99 to .99	near normal
-1.0 to -1.49	moderately dry
-1.5 to -1.99	severely dry
-2 and less	extremely dry

McKee et al. Also defined the criteria for a drought event for any of the time scales. A drought event occurs any time if the SPI is continuously negative and reaches an intensity of -1.0 or less. The event ends when the spi becomes positive. Each drought event, therefore, has a duration defined by its beginning and end, and intensity for each month that the event continues. The positive sum of the spi for all the months within a drought event can be termed the drought's "magnitude." It is relatively [6] new index. It has not been widely applied or tested.

Conclusion

1. It is necessary that the most important drought indices must be tested in different regions and selects only those indices, which are appropriate for a particular region for monitoring and analysis of drought conditions.
2. The combination of more than one index may give batter results.
3. Extension and awareness activities should reinforce awareness that droughts recur_and the focus should be more on sustainable natural resource management even before drought comes, rather than responding to the drought when it is imminent.

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Author Profile

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