

Evaluation of Hydro-Climatology Drought using the Standardized Precipitation Index (SPI) (1970- 2017) in High Ziz River Basin, Central High Atlas, Morocco

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One of the adverse impacts of climate change is drought, which occurs more frequently in the High Ziz river Basin, Central High Atlas, Morocco. The application of drought index analysis is useful for drought assessment to consider adaptation and mitigation method in order to deal with climate change. By figuring out the level and duration of the drought. In order to analyze drought in the specific area, Standardized Precipitation Index (SPI) is an index to quantify the rainfall deficit for multiple timescales.

At present, the Standardized Precipitation Index (SPI) is the most widely used drought index to provide good estimations about the intensity, magnitude and spatial extent of droughts is widely accepted that SPI time scales affect different sub-systems in the hydrological cycle due to the fact that the response of the different water usable sources to precipitation shortages can be very different.

The aim of this study is to characterize the drought in the High ZIZ basin. It is based on the calculation of the standardized precipitation index SPI (Standardized Precipitation Index), to estimate changes of future drought conditions in the catchment studied.

This suggests that it is necessary to test the drought indices and time scales in relation to their usefulness for monitoring different drought types under different environmental conditions and water demand situations.

Keywords: High ZIZ basin, drought, climate change, standardized precipitation index (SPI).

Biography:

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