Abstract

Putting on the dry zone and the specific synoptic conditions, has been causing drought in Iran. Climatic events such as drought, one of the events that will cause a lot of damage every year. This is actually the main feature is repeated in different climates And its effects are not confined to the arid and semi-arid, Droughts in arid areas but also occurs in wet areas Causing a shortage of water. Golestan province has also been affected by the droughts is different. So different droughts is indices to quantify and assess the droughts is situation have been developed. The main objective of this study was to determine the best indicator of drought and climate and vegetation of the Golestan province. Climate indicators studied in this thesis are: indexs to the Rainfall Ranges Classification, Moving average, SPI, CZI, MCZI, PNPI and DI. Minimum rainfall pattern of climate indices using SPI as the best indicator was introduced, The characteristics of SPI droughts is by the drought and droughts is in the province were determined zoning. In this study, the vegetation index NDVI, VCI, SAVI using satellite imagery and GIS software environment were examined. And finally the most appropriate climate index (SPI) and vegetation indices, correlation methods and numerical symmetry communicated. The results of this study showed that the due to the specific characteristics of droughts is and droughts is in the province, there is no With high reliability phenomenon. Vegetation indices showed similar performance and not giving any vegetation indices. SPI, and the relationship between vegetation indices most correlated with rainfall in the growing season that showed increasing amounts of vegetation (climax) synchronization.

Keywords: Indexes Climate, Drought, Remotly Sensed, Golestan Province

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