

ABSTRACT

Drought is a natural phenomenon in Indonesia characterized by a lack of available water both on the surface and underground due to low rainfall. Wonogiri Regency is one of the regions in Central Java that is prone to drought every year due to its low rainfall levels. This study was conducted to analyze the level of drought in Wonogiri Regency, requiring rainfall data calculated using the general drought analysis method, namely the Standardized Precipitation Index (SPI), and to analyze the relationship between the drought index and the air pressure index. The Standardized Precipitation Index (SPI) measures the standard deviation of rainfall from the average over a 1-month period within the last 10 years, from January 2014 to December 2023. The analysis results show that the SPI values indicate drought occurred from May to August, with classifications ranging from moderately dry to extremely dry, and it was found that 2016 was the driest year for Wonogiri Regency. A Pearson correlation test was conducted to determine the correlation between SPI data and SOI data. The correlation test results showed a value of 0,31 and indicating that the relationship between SPI and SOI is very weak, meaning that SOI does not have a significant influence on the occurrence of drought in Wonogiri Regency.

Keywords: *Drought, Rainfall, SPI, SOI, Wonogiri Regency*