

The drought is a lengthy period of unusually low precipitation, leading to a scarcity of water. The Standardized Precipitation Index (SPI) communicates the genuine precipitation as a standardised departure from precipitation probability distribution function. In this study, the daily data for the period 1975-2014 from five precipitation stations surrounding the study area are taken from the Bangladesh Meteorological Department and used as a part of the investigations. We assessed the severity and spatial pattern of the meteorological dry spell are investigated in the North-Western region of Bangladesh using multi-temporal SPI. The greatest SPI value is found -2.27 for six-month timescale, -2.17 for 12 month timescale and -1.85 for three months timescale individually in the year 2010 of Rajshahi station. Mild and moderate drought happen at all stations in the different year of the study area. Severe and extreme drought is mostly found in Rajshahi and Ishurdi locales in the years 1982, 1992, 1994, 1997, 2006, 2000, 2010 and 2012. It is expected that the findings of the study will support drought observing and the outcomes will demonstrate lesser precipitation in the future over the North-West region of Bangladesh.

