



Comparing the Palmer Drought Index and the Standardized Precipitation Index for Zagreb-Gric Observatory

Kreso Pandzic

Meteorological and Hydrological Service, General Meteorology Division, Zagreb, (pandzic@cirus.dhz.hr)

Conventional Palmer Drought Index (PDSI) and recent Standardized Precipitation Index (SPI) are compared for Zagreb-Gric weather station. Historical time series of PDSI and SPI are compared. For that purpose monthly precipitation, air temperature and air humidity data for Zagreb-Gric Observatory and period 1862-2010 are used. The results indicate that SPI is simpler for interpretation than PDI. On the other side, lack of temperature within SPI, make impossible use of it on climate change applications. Further development of both indices is required. Possible applications of them in irrigation scheduling system is considered as well for drought risk assessment. In addition, a comparison of PDSI and SPI for the periods from 1 to 24 months indicate the best agreement between PDSI and SPI for the periods from 6 to 12 months.