



Drought trends at Beyşehir Lake and its vicinity according to the Standardized Precipitation Index (SPI)

Verim Gümüşsoy

Department of Geography, Institute of Social Sciences, Sakarya University, Sakarya, Turkey (verimgumussoy@gmail.com)

As the third largest lake in Turkey, Beyşehir Lake is the largest freshwater lake in the country. The lake which is located on the northern side of the Taurus Mountains range, a great chain running parallel to the Mediterranean Coast across southern Turkey, also has vital importance for the residents in irrigation and fishing. The lake also plays a great role in the irrigation of the Konya Plain.

Analyzing the last 55 years of climate data from four meteorological stations over the basin, this climate study performed around Beyşehir Lake and its vicinity has seen that, average temperatures have had a tendency to increase especially since 2005. It has also been seen that actual evapotranspiration has increased in recent years according to the calculations performed by the Turc formula. The study area has been defined as “semi arid-humid” according to De Martonne climate classification and “semi arid” according to Erinc’s.

By inspecting in different periods, drought has been evaluated in terms of its meteorological, hydrological and agricultural impacts, according to the Standardized Precipitation Index (SPI) method. Especially in the autumn and winter seasons, an increase in droughts have been seen in the recent years.