

# Droughts and their impact on the Albanian territory

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## Abstract

The aim of this paper is to give an overview of the agricultural drought indices in current use in Albania, considering the meteorological, climatological, hydrological and agrometeorological elements provided by the IGEWE (is a partner in the regional project DMCSEE). The drought is a frequent and common climate phenomenon. It happens almost in all climate zones, with the impact in socio-economical field, as in: agriculture, energy etc. The meteorological drought indices, the rainfall anomaly and Standard Precipitation Index (SPI) are the most common. To define the meteorological drought there are some indices. The most used and simplest one in the meteorological literature is the Standardized precipitation Index (SPI index)

Agriculture is usually the first economic sector to be affected by drought. For monitoring agricultural drought, focusing on precipitation shortages, differences between  $ET_a$  and  $ET_o$ , soil water deficits, reduced ground water and/or reservoir levels.

Hydrological drought, associates the effect of periods of precipitation shortfalls on surface or subsurface water supply. The frequency and severity of hydrological drought is often defined on a watershed basin scale. Although climate is a primary contributor to hydrological drought, other factors such as changes in land use, land degradation, and the construction of dams all affect the hydrological characteristics of the basin

The climate change scenario for Albania lead to decrease of precipitation amount about 12.5% up to the year 2100, as a consequence it can be expected that the cases with severe and extremely dry to have the increase tendency.

Key words: climatological drought, hydrological drought, agriculture drought, SPI index, climate change scenario

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