

Weather hazardous phenomena along with the Drini River in Albania

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One of the greatest problems nowadays is becoming natural disasters. All the countries are affected and all the activities are suffering from these phenomena. Albania is a country which is influenced by natural hazards that together human activities have a great impact on the environment.

For that reason, in order to evaluate these adverse weather, phenomena the elements such as: heavy rain, extreme absolute temperatures, strong winds, snow (maximum snow depth and number of days) are analyzed in this paper. The zone under the study lies on the northern part of Albania, in both sides of Drini River. This area is very important for Albania in terms of energy production, agriculture and tourism. There are calculated the thresholds to identify the adverse weather phenomena by using the frequency distribution of meteorological variables.

Referring to the results some conclusions are drawn:

- The central and western part of the study area is characterized by high values of max24h precipitation. The amount of 368.7mm during 24 hours, registered in Lezha in September 2002, remains the highest value observed in September since 1951. This heavy rain flooded an area of 33.000 hectares in the Albanian coastal zone and caused many damages (about 12.850.000 USD).
- As far maximum absolute temperatures, a high number of days overcoming the threshold $>35^{\circ}\text{C}$ is observed in low altitudes in the study area. This number decreases moving towards high altitudes.
- Minimum absolute temperatures vary from -10°C in the downstream of Drini River in Lezha, up to value -23.4°C recorded in Dega station, which is the lower value observed in this zone.
- The wind speed becomes dangerous for human activities when it is greater than 15 m/s. Sometimes in specific stations situated in the coastal zone and the high altitudes, wind speed reaches 40 m/s (Lezha station) or higher. The highest number of the cases with wind speed more than 15m/sec (63 cases) is recording in Lezha and Puka (1983). Such strong winds have brought out high-tension pylons, uprooted trees and have caused damages to agriculture.
- The snow depth is another climatic element which can become dangerous when it

reaches high values. Taking into account that the mostly of this zone is highland, snow is present every year. Referring values of snow depth over 0.5 m as threshold, results that since 1976 the year 1985 seems to be exceptional. Snow depth reached the height about 150 cm and the number of snow days reached up to 16 days.