Geophysical Research Abstracts
Vol. 14, EGU2012-98, 2012
EGU General Assembly 2012

Water and Climate Change in the Classroom in the North-East of Romania

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Abstract: We have studied with the students our climate variability in the last 55 years (1956-2010) to better understanding the feedback between the interlinked terrestrial and atmospheric processes on different spatial and temporal scales. We did case studies of regional hydrological behavior in climate sensitive and drought or flood regions in the North-East of Romania. In the classroom at the “Costache Negruzzi” National College Iasi we have studied with our students, aged 14-18 years old, the temporal and spatial distribution of the precipitation and the temperature in a 55 years period, between 1956-2010, in the North-East of Romania, especially at the meteorological station in Iași. We did graphs with the observational data from the National Meteorological Agency of Romania about precipitation and air-temperature in our region climate and we have registered our own data with an automatic meteorological station placed in the „Costache Negruzzi” schoolyard. In the classroom we have represented the annual medium precipitation and the temperature variability in graphics registered between 1970-2010, in the area of Iasi-Moldavia, Romania. We have identified four dangerous levels of precipitation especially for flood and drought regions in the North-East of Romania. We have studied the maximal and minimal level of the daily, monthly and annual precipitation in correlation with the temperature variability graphs in the same area. We have realized with the students a very complex analysis on the frequency, repartition and variation in time of the precipitation and we have used the information in the Physics and Geography classes. The students aged 14-18 years old did computing statistics of the meteorological data and did different graphs for the precipitation intensity and frequency on special levels: medium, minimum and maximum. The students applied the data for annual precipitation level in each month, 1970-2010 period and discuss the results to identify the climate change impact on water in Iasi area.
Key words: precipitation, hydrological behavior, extreme level, atmospheric processes.