



## **An overview of recent climate change in Romania**

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Analysing climatic trends is essential for the assessment of the impacts of climate variability of a region. Romania is the largest country in southeastern Europe, with an area of 238391 km<sup>2</sup>. The terrain is fairly equally distributed between mountainous (Carpathians), hilly and lowland territories. Elevation varies between zero and 2544 m.a.s.l. It has a transitional climate between temperate and continental with four distinct seasons, and with various climate influences: oceanic (in western part) Mediterranean (South-West), Baltic (North), semi-arid (East), and Pontic (South-East).

Here we present the seasonal changes in several climatic variables (temperature, precipitation, snow depth, sunshine duration, wind speed) and in some annual indices of extremes: Cold Spell Duration Index (annual count of days with at least 6 consecutive days with daily minimum temperature < 10th percentile); number of frost days: annual count of days with daily minimum temperature < 0°C; number of tropical nights: annual count of days with daily minimum temperature > 20°C; Warm Spell Duration Index: annual count of days with at least 6 consecutive days with daily maximum temperature > 90th percentile. For this purpose, high quality meteorological data records from 124 meteorological stations, for the period 1961-2012 has been used. The present study has been done within the framework of the project EURO4M (FP7-EURO4M 242093).