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How the wind climate of the Carpathian basin will change in the 21st century on the basis of PRECIS simulations?

Laura Dobor, Rita Pongracz, Judit Bartholy, and Ildiko Pieczka
Eotvos Lorand University, Department of Meteorology, Budapest, Hungary (dobor.laura@yahoo.com, 00-36 1 3722904)

High resolution model results are essential for the generation of national climate change scenarios, as it is recommended by the United Nations Development Programme (UNDP). For analyzing the possible regional climate change in the Carpathian Basin, we have adapted the model PRECIS at the Department of Meteorology, Eötvös Loránd University. The model PRECIS is a hydrostatic regional climate model HadRM3P developed at the UK Met Office, Hadley Centre, and nested in HadCM3 global climate model (GCM). It uses 25 km horizontal resolution transposed to the Equator and 19 vertical levels with sigma coordinates. First, we evaluate the model capability of reconstructing the present climate (1961-1990) using two different sets of boundary conditions, (i) from the European Centre for Medium Range Weather Forecast ERA-40 reanalysis database, (ii) from the HadCM3 GCM output data. Then, we compare the model results for the periods 2071-2100 (using the HadCM3 GCM outputs as boundary conditions taking into account the SRES A2 and B2 emission scenario) and 1961-1990 (as the reference period). Since wind speed is the key meteorological parameter in terms of wind energy potential, the current poster will analyze the wind-related outputs of PRECIS (wind speed and direction calculated from the daily mean zonal and meridional components).