Geophysical Research Abstracts, Vol. 9, 10545, 2007 SRef-ID: 1607-7962/gra/EGU2007-A-10545 © European Geosciences Union 2007



On the Assessment of Climate Change Impacts in Central and Eastern Europe - EC FP6 Project CECILIA

T. Halenka

Charles University, Fac. of Mathematics and Physics, Dept. of Meteorology and Environment Protection (tomas.halenka@mff.cuni.cz)

In the region of central and eastern Europe the need for high resolution studies is particularly important to asses the impacts of antropogenic climate change on regional and local scales. This region is characterized by small scale topographical patterns that significantly affect the local climate conditions. A resolution sufficient to capture the effects of these topographical and associated land-use features is necessary, that is why 10 km resolution was introduced in project CECILIA accepted under the 4th call of EC FP6 in last year. Based on regional climate modelling studies in targeted areas of Central and Eastern Europe with the resolution of 10 km local impact studies are planned in key sectors of the region like hydrology, water quality and management, air quality issues, agriculture and forestry. Climate change impacts on large urban and industrial areas modulated by topographical and land-use effects which can be resolved at the 10 km scale, are investigated by CECILIA. The high spatial and temporal resolution of dense national observational networks at high temporal resolution and of the CECILIA regional model experiments will uniquely feed into investigations of climate change consequences for weather extremes in the regions under study. Comparison with the results based on statistical downscaling techniques will also be provided. Statistical downscaling methods for verification of the regional model results will be developed and applied, and assessments of their use in localization of model output for impact studies will be performed.