



Evaluation of the regional climate model REMO over several CORDEX domains throughout the globe

A. Elizalde, A. Haensler, P. Kumar, R. Podzun, D. Rechid, A. Remedio, F. Saeed, K. Sieck, C. Teichmann, C. Wilhelm, and the REMO Team

Max-Planck-Institute for Meteorology, The Atmosphere in the Earth System, Hamburg, Germany (claas.teichmann@zmaw.de)

In order to investigate impacts of future climate change on a regional scale there is a rising need for high-resolution climate information in all parts of the globe. However, so far for many regions in the world, only coarse resolution global general circulation model output is available that often does not capture specific regional climate characteristics. As remedial action in the COordinated Regional climate Downscaling EXperiment (CORDEX), it is planned to enhance the number of regional climate projections by running different regional climate models on several domains throughout the globe.

In the framework of CORDEX, the Max Planck Institute for Meteorology will apply its regional climate model REMO over several regions in the world. At the current state the model has been integrated for evaluation simulations using ERA-Interim as boundary forcing for the period extending from 1989 to 2008. We will discuss the ability of REMO to represent the climate characteristics of selected regions such as Africa, Europe, North America, South Asia, etc. The focus of the presentation will be on the evaluation of the spatial and temporal characteristics of simulated precipitation and temperature in comparison to observational datasets. First results show that REMO is able to simulate the mean annual climatic features in all domains, while some biases still remain. Common biases for certain climate types for different domains indicate possible improvements of corresponding dynamical and physical processes in the model. Further analysis focussing on common model behavior in different domains will also be shown.