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An internationally coordinated Regional Downscaling contribution to CMIP5

C. Jones (1) and F. Giorgi ()

(1) Rossby Centre, Swedish Meteorological and Hydrological Institute, Norrkoping, Sweden (colin.jones@smhi.se), (2) ICTP, Trieste, Italy

The Coupled Modelling Intercomparison Project (CMIP) will embark upon its 5th set of coordinated Global Climate scenarios during 2009. These coupled integrations will be a mix of standard climate scenarios, spanning the pre-industrial to 2200 period and short-range, initialized multi-decadal hindcasts and forecasts, with the forecasts likely extending out to 2045. The CMIP5 integrations and subsequent archive of model results will form the backbone of state-of-the-art Global Climate scenarios and forecasts to support the next IPCC AR5 Assessment report, planned to be released in 2013.

The international Regional Climate Modeling and Downscaling community has been discussing over the past year designing a coordinated downscaling project, targeted at using a subset of the CMIP5 Global Integrations. The aim is that a suite of Regional Climate Models (RCMs), run at relatively high resolution (∼25km), will be deployed over a significant fraction of the global populated land regions and used to downscale a group of CMIP5 GCM simulations (both scenarios and decadal forecasts). The Regional Modeling and Downscaling community are presently drafting a plan to achieve this goal, whereby a large ensemble of RCMs, forced by a range of GCMs and emissions scenarios, over a number of discrete regions of the globe, will deliver climate information at high-resolution, in support of the IPCC assessment process.

This talk will provide an overview of the Downscaling plan as it stands to date, indicating the likely regions to be covered, types of GCM runs to be downscaled and over which time periods simulated data will be available. The issue of data availability to the wider research community will also be touched on.