



User tailored results of a regional climate model ensemble to plan adaption to the changing climate in Germany

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High resolution climate information from a multi model ensemble is required for the development and the planning of measures to adapt to changing climate (e.g. German Adaptation Strategy). Assuming different emission scenarios, using a multi model ensembles and multi downscaling methods is essential to achieve information on possible ranges of future climate change for climate impact research and as background information for policy and economy.

To achieve this, a set of dynamical and statistical downscaling experiments has been added to the Euro-CORDEX ensemble by the German research project ReKliEs-De (Regional Climate change Ensemble simulations for Germany). Altogether 37 Simulations using RCP8.5 and 14 Simulations using RCP2.6 are analyzed from the combined EURO-CORDEX and ReKliEs-De Ensemble. The dynamical simulations cover the EURO-CORDEX domain, the statistical simulations cover Germany and the catchments of large rivers draining into Germany. All simulation results are provided on the standard EURO CORDEX grid with 0.11° horizontal resolution. 24 climate indices have been analyzed in ReKliEs-De to quantify the differences in mean and extreme climate quantities between the two scenarios in consideration of the bandwidth of climate change signals due to the deviating model performances. The analysis concentrates on Germany and the major river catchments draining into Germany.

The assessment of data and information needs of users will be introduced, which formed the basis of the user tailoring of the project result. The calculated climate indices will be presented and how condensed information of the range of possible changes in mean and extreme climate can fulfil the requirements of users.