EMS Annual Meeting Abstracts
Vol. 9, EMS2012-253, 2012
12th EMS / 9th ECAC

Post-processing of an ensemble of climate projections for the joint research project KLIWAS

S. Plagemann, F. Imbery, and J. Namyslo
Deutscher Wetterdienst, Offenbach, Germany

The research programme KLIWAS, funded by the German Federal Ministry of Transport, Building and Urban affairs is focussed on climate change and its impacts on waterways and navigation for Germany in the 21th Century. The necessity and appropriateness of potential adaptation measures can be evaluated only if the complex systems such as river run-off or coastal ecological processes are fully analysed and well understood. In order to derive sound statements about the range of possible future climate changes, KLIWAS will use hydrometeorological information derived from a wide variety of global and regional climate models. Therefore, KLIWAS uses a complex model chain, starting from the radiative forcing of the climate system (GHG emissions), via models of the hydrological and oceanographic subsystems, up to ecosystem and economic models.

In this context the German Meteorological Service (DWD) validates and evaluates an ensemble of climate projection data particularly with regard to hydrometeorological variables (e.g. precipitation amount). Among others data based on regional climate models of the EU research programme ENSEMBLES (FP 6). For post-processing downscaling techniques and bias correction are used. In the end model uncertainties will quantify as well as verified data will provide for various end users.