



Hydrological applicability of GCM results

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Global Circulation Models are widely used in science to predict future climate. Their output serves as basis for downscaling and subsequent quantification of regional and local impacts of climate change. GCM outputs differ depending on the selected emission scenarios and even more depending on which model is used. Even if high uncertainty is associated with the models there is a high political demand to use results for decision support. In this paper the hydrological aspects of the chain are investigated. Current model practices are evaluated from different perspectives such as the ability of model to predict changes if unable to predict mean values. The choice of the length of the reference intervals for hydrological impact modeling is discussed using examples from German catchments. The alternative using climate trends is discussed. Finally the dilemma of the decision makers is revisited.