

Future development of heavy precipitation – an important factor for soil erosion

A. Spekat, F. Kreienkamp, and W. Enke

Climate and Environment Consulting Potsdam GmbH, Potsdam, Germany (arne.spekat@cec-potsdam.de)

Excess surface runoff caused by heavy precipitation is a very important factor for soil erosion and soil degradation. Several dynamical and statistical regional climate models are compared with respect to their ability to describe intense rainfall: CCLM (the climate version of the German Weather Service-developed Local Model), REMO (the regional dynamic climate model from the MPI Hamburg) and WETTREG a statistical method which uses circulation patterns and their linkage to local climate properties. The results for the models' abilities to reproduce the current climate as well as their scenarios will be shown. Different indicators for extreme precipitation will be discussed, such as exceedance of threshold values, percentiles and return times.