Water deficit risk in Central Europe in the middle of the 21st century

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The aim of the paper is to prepare projections of water deficit risk in Central Europe for the middle of the 21st century using different methods of statistical as well as dynamical downscaling. There are a lot of uncertainties of regional climate change projections arising from uncertainties of the external forcing scenarios as well as differences in large-scale circulation described by GCMs because of the different model formulations (Christensen et. al., 2007). One way to approach this uncertainty is to use a set of different scenarios. Averaging results and taking into consideration extreme projections we can describe the most probable changes and their possible range. The A2, A1B and B1 SRES scenarios were included and simulations were compared with reference period 1961-1990. Changes in precipitation totals, evaporation and selected aridity indices like de Martonne, Ped, and SPI were considered.