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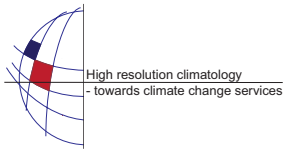

A new global set of downscaled temperature scenarios

R.E. Benestad

Norwegian Meteorological Institute, Climate, Oslo, Norway (rasmus.benestad@met.no)

A new set of empirical-statistical downscaled monthly mean temperature scenarios is presented for locations spread across all continents. These results are based on the CMIP3 simulations, the SRES A1b story line, and arguably represent the largest downscaled multi-model ensemble to date in terms of a world-wide distribution, length of time interval, and the number of global climate model simulations. The ensemble size of 50 members enables a crude probability-based analysis for simulated future local temperature, and maps based on the downscaling analysis have been constructed for northern Europe to show the 95th percentile for the 2050 summer mean temperature as well as the probabilities for below-freezing mean winter temperatures. These results suggest that the 95-percentile of the mean summer is expected to increase by 1.5-2°C by 2050 over most of Europe, and that there will be reduced probabilities of mean winter temperature lower than 0°C for all locations, with greatest impact of up to 40% in areas where the winter temperature presently is just below freezing. The results have also been incorporated as graphical presentations of downscaled scenarios into GoogleEarth to show the location and situation.