



Influence of changed vegetations fields on regional climate simulations in the Barents Sea Region

H. Göttel (1), Jörn Alexander (1), Diana Rehid (1), Annett Wolf (2) and D. Jacob (1)
(1) Max Planck Institute for Meteorology, Hamburg, Germany, (2) Royal Swedish Academy of Sciences Abisko Scientific Research Station Abisko, Sweden (goettel@dkrz.de / Fax: +49 40 41173313 / Phone: +49 40 4173433)

In the context of the EU-Project BALANCE (<http://balance-eu.info>) the regional climate model REMO was used for extensive calculations of the Barents Sea climate to investigate the vulnerability of the Barents Sea Region to climate change.

For investigations of future climate development on ~50 km horizontal resolution REMO has been driven by the transient ECHAM4/OPYC3 IPCC-SRES B2 scenario. A climate simulation with the regional climate model REMO has been performed to simulate the climatic change of the Barents Sea region between 1961 and 2100 (Control and Climate Change run CCC-Run). This climate change run has been repeated with vegetations fields from the LPJ-guess dynamic vegetation model (Lund-Potsdam-Jena, LPJ-guess) driven by the first CCC-Run. The climate change signal of vegetation change will be investigated and discussed with focus on precipitation, temperature and snow cover.