Geophysical Research Abstracts, Vol. 8, 03481, 2006
SRef-ID: 1607-7962/gra/EGU06-A-03481


# Future changes in vegetation of the Barents Region, including an iterative feedback of the climate-vegetation system

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The northern latitudes have experienced dramatic climatic changes in the last decades, which are expected to continue. Temperature and precipitation in particular are projected to increase. We use the dynamic vegetation model (LPJ-GUESS) to project transient impacts of changes in climate on vegetation of the Barents Region. The vegetation model was driven by a regional climate model (REMO, Hamburg). In an iterative process the projected vegetation type and cover was used as feedback to the climate model. The resulting new climate projection, which included this feedback from vegetation, was used as a new input for the vegetation model. The consequences for vegetation distribution, carbon storage and carbon fluxes are presented.