Sensitivity study for parameterization of woods in the regional climate model REMO

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There is no denying that vegetation influences our climate on earth on a global and
regional scale. But whereas small scale effects of vegetation can be observed very
well, for example cooling effects of forests, they have to be parameterized for the grid
scales of the comparatively coarse resolutions of climate models. In order to refine mi-
nor effects of vegetation in the regional model REMO we are analyzing influences of
vegetation on climate signals by changing several parameters that characterize vegeta-
tion in REMO. For a first guess sensitivity study, part of the BMBF project GLOWA-
Danube, we will include specific characterizations for Conifer and Deciduous Forests
of the decision support system DANUBIA in REMO - for a five-year period, over
a domain covering Germany, Austria, and Switzerland with a horizontal resolution of
10x10 km in existing REMO runs, under the authority of the Umweltbundesamt UBA.
After changing the characteristics of woods, we compare the results with existing runs
to look for influences on temperature and precipitation for the research area of the
upper Danube catchment, defined in DANUBIA.