



## **Estimation of uncertainty in vegetation dynamics for Russia due to climate change**

L. Golubyatnikov (1) and E. Denisenko (2)

(1) A.M.Obukhov Institute of Atmospheric Physics, Russian Academy of Sciences, Laboratory of Mathematical Ecology, Moscow, Russian Federation (golub@ifaran.ru), (2) Institute of Geography, Russian Academy of Sciences, Moscow, Russian Federation

We analyzed regional changes in the vegetation cover under anthropogenic warming in the 21st century over the territory of Russia. We used outputs of the intermediate-complexity climate model IAP RAS CM developed at the Institute of Atmospheric Physics (Russian Academy of Sciences). Corresponding numerical experiments were performed under the aggressive SRES A2 and moderate SRES B1 scenarios for the 21st century.

We simulated the response of net primary production (NPP) for phytocenoses and possible changes in phytocenoses habitats for future global climate warming for the territory under study. Our model estimates evaluate the spatial tendencies and scales for possible structural changes of the recent phytocenoses over the territory of Russia for global climate warming in the 21st century. The estimates point to a significant NPP increase for fairly extended latitude range in Russia. At the same time, we can see regional differences between the possible NPP changes for scenarios under study. The obtained data indicate a mosaic pattern of possible changes in the phytocenoses within their current habitats. Using the climate scenarios according to IAP RAS CM with SRES A2 and SRES B1 we estimated the uncertainty of future changes in the vegetation characteristics.

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