



Introducing land-cover and land-use changes in a climate scenario of the 21st century

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A climate simulation of the 21st century that includes not only greenhouse gases and aerosols emitted by human activity but also land-use and land-cover changes has been performed with the coupled general circulation model ARPEGE/OPA from CNRM. To achieve this goal, this model has been coupled to the integrated impact model IMAGE2.2 (developped at RIVM, The Netherlands), which simulates the evolution of greenhouse gases concentrations as well as land-cover changes. A simulation with the two models coupled together has shown that interactions between climate and vegetation are not of primary importance for such century scale studies.