



Advances in Meteorology

Special Issue on  
**Observations and Modeling of the Climatic Impact  
of Land-Use Changes 2014**

# CALL FOR PAPERS

Since the industrial revolution, climate changes caused by greenhouse gas emissions have attracted the attention globally from a diverse community including both politicians and scientists; however, the pending issues on the research of the climatic impact of land cover and land use changes via terrestrial biogeophysical processes are far from resolved. The scientific community needs to provide comprehensive scientific support for global change adaptation. Land cover and land use changes directly lead to the change of the surface condition, thereby changing the surface albedo and surface roughness, and then affect surface heat balance and water cycles. In addition, the urban expansion causes aggravation of urban heat island effect. It is of significance to understand climatic impacts accompanied by biogeophysical processes induced by land use changes, which is critical to food safety, extreme climate, biodiversity protection, and a series of problems. Land use changes, in turn, are occurring in the context of climate changes at a variety of scales.

We invite investigators to contribute original research articles as well as review articles that can advance our understanding of the mechanisms and impacts of land use changes on climate changes at local, national, and international levels.

Potential topics include, but are not limited to:

- ▶ Observation of the effects of land use changes on regional surface temperatures, precipitation, and larger-scale atmospheric circulation
- ▶ Parameterization of surface processes induced by land use changes and minimization of the uncertainties of the simulations through GCM and RCM
- ▶ Estimation of human-caused land changes on redistributing atmospheric heat regionally and globally
- ▶ Systematic approach for modeling the impacts of both greenhouse gases and land use changes
- ▶ Prediction and scenario analyses of land use changes and their influences on global climate changes

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