11 July 2008

Post-Symposium Report of Dynamics and Pathways of Land System Change

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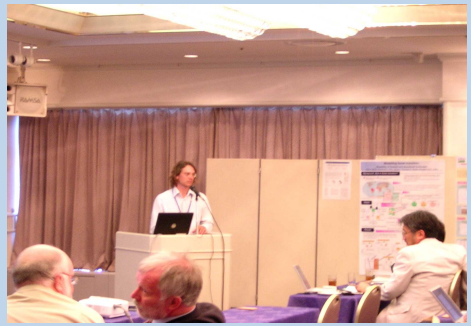
Rationale

- The process of policy formulation on environmental problems such as climate change, biodiversity and desertification requires good science and scientific assessments.
- Global Land Project is at the forefront of providing high quality scientific assessments for designing policies for global environmental sustainability.
- Land-use/cover change affects climate, hydrology, biodiversity, ability of biological systems to support human needs, and the vulnerability of people and places to climatic, economic and sociopolitical perturbations.
- June 25 Symposium was organized to improve our understanding of the critical pathways of change in the land system and the implications for human vulnerability and the design of adaptation measures.

Major Findings

- Path dependencies leading to tipping points are applicable for assessments of the sustainability of coupled human-environment systems
- Initial conditions in both the environmental and human subsystem set land system into initial paths
- Increasing land investments increases path dependency, whereas legacies constrain the range of emergent properties
- It is essential to examine multiple outcomes-scenarios including options not taken before designing adaptation policies.

Paper will be published in a high profile journal.



Future outlook

Land System Science Development

- Sustainable Land Architecture
- Biofuel Science
- Ecosystem Services Management
- Contribution to Sustainability Science Education (www.census.hokudai.ac.jp)