

SLUAS and the Great East Japan Earthquake Disaster

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SLUAS (Sustainable Land Use for Asia, 2009-2013) is a research project sponsored by JSPS Science Fund Basic Research (S). It was created in response to the proposal of the Science Council of Japan entitled "Towards Sustainable Nature-Human Co-existence on the Land and in the Coastal Sea". The proposal warned the danger of the coastal area because it is where serious incidences related with global environmental problems are concentrated and where large-scale disasters which threaten sustainable nature-human co-existence are frequent. Therefore, SLUAS from its start in 2009 put high priority on large-scale disasters as major threat to sustainable land use in Asia.

Land Use/Cover Changes are inter-related with various global environmental problems and problems associated with human-induced as well as natural disasters. The damages caused by global changes and those created by disasters have been increasing, and they are often inseparable. The Great East Japan Earthquake Disaster, which includes all sorts of direct and indirect losses generated by the M9.0 earthquake of 11 March 2011 and its aftershocks, the huge tsunami that followed, and the accident of Fukushima Daiichi Nuclear Power Plant, was a reminder of the danger of the coastal lowlands, and the inter-relatedness of global changes and major disasters.

GLP (Global Land Project) is a joint core project of IGBP (International Geosphere-Biosphere Programme) and IHDP (International Human Dimensions Programme), and it has the following three research themes:

Theme 1: dynamics of land systems

Theme 2: consequences of land system change

Theme 3: integrating analysis and modelling for land sustainability

The Great East Japan Disaster was a major blow to the existing land systems and land sustainability, and hence it is a major common concern of entire GLP. Theme 3 in particular claims "vulnerability and resilience of land systems to hazards and disturbances" as one of its three main issues, indicating its strong commitment to hazards. It is therefore anticipated that GLP is ready to play a key role in incorporating global change research and disaster research for the sake of realizing sustainable land use in Asia.

The presentation will demonstrate how SLUAS has been involved in the study of the Great East Japan Earthquake Disaster, what it has achieved through its activities, and what roles GLP can play towards sustainable land use in Asia.

Keywords: GLP, sustainability, human geoscience, land use, Asia, Great East Japan Earthquake Disaster