



Preface

This special issue focuses on land science studies, which have been promoted actively by the scientific community involved in the Global Land Project (GLP), an international research core project under the International Geosphere–Biosphere Programme (IGBP) and International Human Dimensions Programme (IHDP). Land use and land cover changes (LUCC) are constantly occurring across the globe. They show great variation both spatially and temporally, so the GLP community encounters wave after wave of new agendas. Accordingly, continuous research addressing land science issues has been needed in the past and will be needed in future as well.

One of the great characteristics of GLP studies is their wide range of disciplinary coverage. GLP-related topics have been studied by both natural and social scientists dating back even before the GLP was launched in 2006 to the launching of its predecessors, Global Change and Terrestrial Ecosystems (GCTE; 1992–2003) and Land Use and Cover Change (LUCC; 1994–2005). The number of GLP-related publications has been rapidly increasing, as members of the GLP Sapporo Nodal Office describe in this issue.

Many GLP-related studies are strongly solution-oriented, which is another characteristic of GLP studies. Because this special issue was designed by the GLP Sapporo Nodal Office, the articles it carries relate to the office's major thematic topics (resilience, sustainability and vulnerability). Therefore, articles associated with the thematic topics of the other three nodal offices (Beijing, Taipei and Europe) have been excluded.

Land science covers everything from coastal areas to high mountain regions, and from small settlements/communities to mega-cities. In fact, the Asian region comprises maritime nations as well as those of the Himalayan region, and hundreds of thousands of communities, ranging from small settlements to mega-cities. The tasks of the GLP Sapporo Nodal Office are not limited to national or regional concerns, but this special issue focuses on Asian issues. As readers can easily tell from the articles in this issue, Asia is extremely important to study because of its rapidly expanding population. According to the United Nations, the world's population reached 7.2 billion in 2013, among which 4.3 billion (about 60%) reside in Asia.

This special issue carries 11 articles. The first article, by the members of the GLP Sapporo Nodal Office (Watanabe *et al.*), gives an overview of the roles and activities of both the GLP and the nodal office, emphasizing the importance of addressing Asian issues. The GLP has an endorsement system for research projects, and it lists some 60 endorsed research projects on its website (<http://www.globallandproject.org/endorsement/projects.php>). Among those, six research groups have contributed to this issue, based either on endorsed research itself, or on related research, or on research developed beyond the scope of endorsed research. These include the groups led by Noriyuki Tanaka (Osaki in this issue), Takayuki Shiraiwa (Shiraiwa in this issue), Norio Yamamura (Ishii *et al.* in this issue), Jefferson Fox (Fox *et al.* in this issue), Kaushalya Ramachandran (Ramachandran *et al.* in this issue), and Kang-tsung 'Karl' Chang (Karacsonyi & Chang in this issue). This issue also carries four other important articles. Shrestha *et al.* examine the dynamics of mountain agriculture and land change in Lamjung District, Nepal; and K. Kimoto discusses forest management as part of regional governance in India. J.C. Postigo deals with the subject of land grabbing by Japanese companies, one of the hottest subjects in land science. Finally, Himiyama *et al.* discuss how natural disasters affect land use.

The GLP is undergoing a phase of synthesis and transition to Future Earth (<http://www.futureearth.org/>), which will take a vital role in research discipline in the next decade. We do hope that this special issue will help provide not only a better understanding of land science in Asia but also promote research programs in land science towards Future Earth.



Teiji WATANABE and Hideaki SHIBATA
GLP Sapporo Nodal Office, Hokkaido University