

## **Land use transitions and their implications for ecosystem services**

LI Xiubin

Institute of Geographic Science and Natural Resources Research, Chinese  
Academy of Sciences

Global land use/cover change in recent decades shows two distinct features: (1) in the second half of the 20th century, changes in cropping intensity are significant. For example, the global arable land area increased by only 15%, while the irrigated area is doubled; fertilizer consumption increased by 4.5 times; the number of tractors increased by 2.4 times. (2) land cover change shows an obvious spatial disparity. Developing countries, especially in the tropics forest area continued to decrease, while Europe, North America, Japan and other developed countries in the 20th century has experienced a "land use transition" - that is, steep land, barren land and other "marginal land" out of production, and as a result natural forest area increased. These two trends in land use/cover change are closely inter-linked, as forest-cover transition from net decrease to net increase corresponds to farmland abandonment in remote and mountain areas. And the globalization of economy and its resulted urbanization of population are the major driving forces behind. The paper discusses the recent trends in global urbanization, farmland change, forest transition and their implications for ecosystem services. China as an example is scrutinized in detail.