

CONTROL ID: 1503097

TITLE: Regional Approach for Linking Ecosystem Services and Livelihood Strategies Under Climate Change of Pastoral Communities in the Mongolian Steppe Ecosystem

ABSTRACT BODY: Dramatic changes due to climate and land use dynamics in the Mongolian Plateau affecting ecosystem services and agro-pastoral systems in Mongolia. Recently, market forces and development strategies are affecting land and water resources of the pastoral communities which are being further stressed due to climatic changes. Evaluation of pastoral systems, where humans depend on livestock and grassland ecosystem services, have demonstrated the vulnerability of the social-ecological system to climate change. Current social-ecological changes in ecosystem services are affecting land productivity and carrying capacity, land-atmosphere interactions, water resources, and livelihood strategies. The general trend involves greater intensification of resource exploitation at the expense of traditional patterns of extensive range utilization. Thus we expect climate-land use-land cover relationships to be crucially modified by the social-economic forces. The analysis incorporates information about the social-economic transitions taking place in the region which affect land-use, food security, and ecosystem dynamics. The region of study extends from the Mongolian plateau in Mongolia. Our research indicate that sustainability of pastoral systems in the region needs to integrate the impact of climate change on ecosystem services with socio-economic changes shaping the livelihood strategies of pastoral systems in the region. Adaptation strategies which incorporate integrated analysis of landscape management and livelihood strategies provides a framework which links ecosystem services to critical resource assets. Analysis of the available livelihood assets provides insights to the adaptive capacity of various agents in a region or in a community. Sustainable development pathways which enable the development of these adaptive capacity elements will lead to more effective adaptive management strategies for pastoral land use and herder's living standards. Pastoralists will have the opportunity to utilize seasonal resources and enhance their ability to process and manufacture products from the available ecosystem services in these dynamic social-ecological systems.

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INDEX TERMS: [1637] GLOBAL CHANGE / Regional climate change, [1630] GLOBAL CHANGE / Impacts of global change.

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