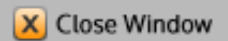




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**CONTROL ID:** 1810417**TITLE:** Soil Carbon Recovery of Degraded Steppe Ecosystems of the Mongolian Plateau

**ABSTRACT BODY:** Mongolian steppe grassland systems are critical source of ecosystem services to societal groups in temperate East Asia. These systems are characterized by their arid and semiarid environments where rainfall tends to be too variable or evaporative losses reduce water availability to reliably support cropping systems or substantial forest cover. These steppe ecosystems have supported land use practices to accommodate the variable rainfall patterns, and seasonal and spatial patterns of forage production displayed by the nomadic pastoral systems practiced across Asia. These pastoral systems are dependent on grassland ecosystem services, including forage production, wool, skins, meat and dairy products, and in many systems provide critical biodiversity and land and water protection services which serve to maintain pastoral livelihoods. Precipitation variability and associated drought conditions experienced frequently in these grassland systems are key drivers of these systems. However, during the past several decades climate change and grazing and land use conversion have resulted in degradation of ecosystem services and loss of soil organic matter. Recent efforts in China and Mongolia are investigating different grazing management practices to restore soil organic matter in these degraded systems. Simulation modeling is being applied to evaluate the long-term benefits of different grazing management regimes under various climate scenarios.

**CURRENT SECTION/FOCUS GROUP:** Global Environmental Change (GC)**CURRENT SESSION:** GC049. Environmental, Socio-Economic and Climatic Changes in Northern Eurasia and their Feedbacks to the Global Earth System**INDEX TERMS:** 0414 BIOGEOSCIENCES Biogeochemical cycles, processes, and modeling , 0428 BIOGEOSCIENCES Carbon cycling, 1630 GLOBAL CHANGE Impacts of global change.**AUTHORS/INSTITUTIONS:** D.S. Ojima, C. Togtohyn, CO St Univ-Nat'l Rsrc Ecol Lab, Fort Collins, Colorado, UNITED STATES;

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