Climate Change, Geoengineering, and The Ecohydrology of Dryland Ecosystems

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Human induced changes to the chemistry of the atmosphere and the consequences for the global climate system have led to broad activity across the sciences including 30 years of investigation by the Intergovernmental Panel on Climate Change (IPCC). The IPCC is the most important source of scenario driven information about possible future climates and the source of input data to climate change effects investigations. Climate change is one of, if not the central issue in ecosystem ecology research at the beginning of the 21st century. I am interested in the potential effects of climate change on the inputs and losses of water to dry, non-forested ecosystems. My seminar will focus on these issues for Mongolia and Australia including on how geoengineering may mitigate or intensify climate change effects on the key processes of water cycling.