

## Integration through modelling for the Global Land Project

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### **Abstract**

Models provide an important capability for understanding and projecting changes in land systems. The Global Land Project seeks to integrate the dynamic interactions of human and environment systems to assess vulnerability, resilience and adaptation towards sustainable land systems. This talk identifies some challenges for developing integrated models and provides a suite of possible design criteria for models of land systems. These include developing models that are effective in satisfying both scientific and policy goals, and that have an ability to represent the spatial, temporal and process dynamics of both human and natural systems, and the interaction of these systems, in order to describe, explain, and predict change and its consequences. A capacity for adaptation may also be valuable to represent and detect change in the importance of underlying drivers. Finally, I argue that integration will benefit from recasting the driving factors used in land change science as processes.