Bringing resilience down to earth: Panel discussion

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Submission 60 : Sustainable weighting of ecology-economics tradeoff (SWEET): Agrobiodiversity, sustainability and sustainagility across land use intensification gradients in a global comparative study

A panel discussion will explore research approaches to improve our capacity to respond to unforeseen change in agricultural landscapes. Preparation for uncertainty requires current investment now for quick and flexible adaptation strategies later on. Yet, keeping multiple options open will be inefficient and suboptimal, especially for hundreds of millions that face poverty and lack food security. This may be especially true for biodiversity conservation despite its enormous future option value for sustainable agricultural landscapes. For this reason, three themes will be addressed in particular. 1) What are the current trajectories and prognoses for long-term ecological and economic sustainability under different agricultural frameworks? Examples will be from an agroforest landscape in the Eastern Amazon, a mountain biosphere reserve in Mexico, a forest-wildlife sanctuary in India, and intensive agriculture in the Netherlands. 2) What types of social institutions may be most effective for increasing the conservation of wild and agricultural biodiversity given increased demand on land and climate change? Interdisciplinary and multi-scale research in the abovementioned agricultural landscapes will indicate similarities and differences for effective strategies that potentially minimize biodiversity loss. 3) How can modeling approaches help to support negotiation and inform decision making for greater resilience, given the complexity of social-ecological frameworks? The panel’s experiences with different types of models (e.g., conceptual, biophysical, statistical, geoinformation, and participatory) will be presented, and they will explore the significance and usefulness for different types of end-users. Ways to build scenarios that rely on the outputs of research data and models will be examined. A brief synthesis will be presented and linked to the objectives of the DIVERSITAS agroBIODIVERSITY network http://www.agrobiodiversity-diversitas.org/.