ABSTRACT PREVIEW

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Operationalizing the telecoupling concept to assess land system regime shifts, land use decision making, and impacts on human well-being in tropical forest frontier landscapes: first empirical results from Laos, Madagascar, and Myanmar

Presentation Type: Oral Presentation (Part of a Symposium)

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- Yes

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Abstract

Landscapes on forest frontiers in the humid tropics provide powerful examples of the challenge to reconcile human development with increasingly evident planetary boundaries. These social-ecological systems not only have to meet the immediate livelihood needs and the broader development aspirations of their local populations. They are also expected to ensure the complex mix of ecosystem service flows that support human well-being locally and provide environmental benefits worldwide. Driven by demands for commercial agricultural production, carbon sequestration or biodiversity conservation among others, distant socio-economic and environmental influences are becoming increasingly entangled, triggering not only rapid LUC processes at the local scale, but also unchaining multi-directional spill-over and feedback effects affecting other SES. This phenomenon, which land change scientists have recently conceptualized under the term “telecoupling”, points to major methodological and empirical research gaps.

The forest frontier contexts of Laos, Madagascar, and Myanmar illustrate the abovementioned sustainable development challenges, which call for an operationalisation of the telecoupling concept. Complementing a conventional a-priori spatial delineation of our case-study sites, we take relevant land use changes as starting points to analyse the network of all relevant actors interlinked by flows of goods, capital, information, and guided by institutions. Meaningful spatio-temporal system boundaries will be delineated as an outcome of our empirical research. Such a research approach shall bring a more conventional place-based approach into play with a process-based perspective on land change, allowing us to advance the concept of telecoupling and demonstrate various ways of its operationalisation. In the proposed presentation, we would like to share our conceptual advancements as well as first empirical results on land system regime shifts, land use decision making, and impacts on human well-being from Laos, Madagascar, and Myanmar.

Organized Symposium Selection

Organized Symposia:

(By Invite Only) Telecoupling for Sustainable Development and Conservation Across Local to Global Scales (Liu)

Keywords

Keyword 1

telecoupling

Keyword 2

land system regime shift

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human well-being

Keyword 5

forest frontiers