

“From Building the “Tower of Babel” to Shared Frameworks for the Representation of Social-Ecological Systems”

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Panel: Developing Frameworks to Study Social-Ecological Systems Over Time

The complexity of social-ecological systems renders analyses on general system characteristics (e.g. factors that determine adaptive capacity of a system) exceedingly difficult. These difficulties inherent in the object of study are exacerbated by methodological problems. Due to the lack of shared and widely accepted frameworks comparative analyses over a large number of case studies hardly exist. Often it is virtually impossible to compare results from different case studies even when they deal with similar research issues. Different terminologies or different interpretations of the same term are used and case studies are often poorly documented. To improve this situation is the major goal of the SES (social-ecological-systems) Club, an informal network of scholars from different organizations in Europe and the United States.

The paper will highlight major challenges and knowledge gaps regarding requirements for sustainable resource governance and management that can only be tackled by adopting a shared framework. The usefulness but also the challenges of using such frameworks will be illustrated by comparative analyses of case studies focusing on social and societal learning and transition processes towards more integrated and adaptive water governance and management. Emphasis will be given to the representation of social interactions and the dynamics of learning and change. The SES framework and the Management and Transition Framework will be compared in this respect. Prospects for building a global data base of resource governance systems and a suite of comparative case study analyses will be elaborated.