



Stockholm Seminars

Focusing on the dynamics and stewardship of social-ecological systems

Regional Scenarios: Emergence of Fragility in Safe Operating Spaces

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Linné Hall, The Royal Swedish Academy of Sciences
Lilla Frescativägen 4A, Stockholm

This talk will describe how qualitative scenarios, generated by collaborative processes and combined with quantitative models, are a powerful method for understanding and navigating change in regional social-ecological systems. One of the challenges in modeling such scenarios lies in projecting future probabilities of ecosystem shocks and disturbances. The occurrence of shocks changes for many reasons, including human action.

Humans often attempt to decrease the variance of ecosystems to increase the predictability and reliability of ecosystem services. These management attempts typically have the focus of only a few years. This moderate control of variance in the short time frame causes large increases in variance over decades and thereby makes social-ecological systems more fragile. Staying within a safe operating space requires that management allows for natural variability of ecosystems.

About Steve Carpenter

Steve Carpenter is Director of the Center for Limnology and Stephen Alfred Forbes Professor of Zoology at the University of Wisconsin-Madison. He studies watersheds and lakes of the Great Lakes region using scenarios, models, long-term data and large-scale experiments. Carpenter is a member of the U.S. National Academy of Sciences and foreign member of the Royal Swedish Academy of Sciences.

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