Programme on Ecosystem Change and Society (PECS)

Norström Albert

1Stockholm Resilience Centre (SRC) – Sweden

Abstract

The Earth system, upon which human well-being depends, is in a period of unprecedented transition. Global changes include profound alterations of social-ecological systems and the services they provide globally interconnected societies and economies. An increased awareness of these changes is vital for developing an effective response. However, our capacity for action is still impeded by significant gaps in knowledge of the links between ecosystem services, human wellbeing and livelihoods. PECS is a ten-year initiative, sponsored by UNESCO and ICSU and hosted by the Stockholm Resilience Centre, which aims to contribute to filling these gaps.

The goal of PECS is to generate the scientific and policy-relevant knowledge of social-ecological dynamics needed to enable sustainable stewardship of social-ecological systems, including the mitigation of poverty. PECS research will focus on i) the nested multi-scale dynamics of social-ecological systems (seascapes and landscapes), ii) the stewardship of these systems and the ecosystem services they generate and iii) the relationships between ecosystem services and human well-being, wealth and poverty.

The principal approach of PECS research is comparisons of place-based, long-term social-ecological case studies. PECS will also develop and facilitate a set of dynamic, interdisciplinary working groups that focus on different cross-cutting topics. PECS will help provide the evidence base and research mechanisms for a deep intellectual exchange among these diverse projects, case-studies and working groups on the functioning and resilience of social-ecological systems.

This session will give an overview of work being carried out in the different PECS case-studies and working groups, focusing on the key insights generated in studying social-ecological systems. It will highlight the key epistemological approaches to interdisciplinary and transec-toral research, data collection approaches and analytical approaches that will ensure cross-site comparison in PECS.

Session chairs: Albert Norström, Patricia Balvanera, Marja Spierenburg

Format of session: We propose a modified speed-talk session, with 7 x 5 minute talks and then a joint panel Q&A session with the audience.

Presenters:

*Speaker
• Joern Fischer* et al – "A social-ecological case study in Central Romania

• Henrik Österblom* et al – "Insights from the PECS marine working group: Understanding governance transformations in marine social-ecological systems"

• Xavier Basurto* et al – "Identifying Cross-System Drivers for Resource Governance and Stewardship in Fisheries, Water, and Forests Commons: Synthesis of Global Datasets Using Neural Networks and Regression Trees

• Toby Gardner et al* – "Challenges and opportunities for a more sustainable future in the Eastern Amazon: social and ecological insights from the Sustainable Amazon Network"

• Tim Daw et al*. - "Understand the complex relationship between ecosystem services and the wellbeing of the poor in coastal Kenya and Mozambique - Sustainable poverty alleviation from coastal ecosystem services (SPACES)"

• Albert Norström et al*. - "Exploring the social-ecological dynamics that contribute to the reliable production of ecosystem services in the Norström basin, Sweden"

• Patricia Balvanera et al.* - "Reflection on the epistemological and methodological challenges of PECS: linking local challenges at PECS case-studies to global ones"

Keywords: socialecological systems, ecosystem services, human wellbeing, casestudies, crossscale dynamics