



Programme on
Ecosystem Change and Society

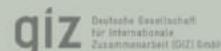
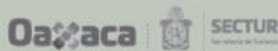
Stockholm Resilience Centre
Sustainability Science for Biosphere Stewardship



ABSTRACTS

OPEN SCIENCE CONFERENCE PECS II

NOVEMBER 7-10 2017
OAXACA CITY
MEXICO



Welcome!

PECS

The Programme on Ecosystem Change and Society (PECS) was launched in 2011. The principal approach of PECS research is an in-depth understanding of the social-ecological dynamics at landscape scale in a wide variety of situations. PECS uses a broadly set of conceptual frameworks and tools that eventually leads to comparisons of place-based, long-term social-ecological case studies, and reveals general principles for sustainable resource management. Since 2014, PECS is officially part of Future Earth, the newly created global research platform that aims to provide the knowledge and support to accelerate our transformations to a sustainable world.

PECS 2017

The first Open Science Conference of PECS was held in South Africa in November 2015. PECSII- 2017 will advance from the momentum and insights gained during the PECS 2015. Eighteen transdisciplinary projects and five cross-cutting working groups have been endorsed within PECS projects, which together cover a wide range of social-ecological case-studies around the world.

Research across these case studies is adaptive and transdisciplinary and combines different knowledge systems and perspective. These features will ultimately, and ideally, allow for the guiding research questions of PECS to be co-designed and co-evolved together by researchers and stakeholders.

PECSII- 2017 will host more than 300 participants from more than 30 countries, from academic, governmental and societal organizations.



WELCOME TO PECS-II

Dear Friends

Welcome to the Second Open Science Conference of the Programme for Ecosystem Change and Society (PECS), in Oaxaca, Mexico, November 7-10 2017 (PECSII). The emphasis this year is on “Transdisciplinary place-based research for global sustainability”. As a network of place-based research, PECS strives to foster interactions and gaining insights from comparisons across sites. Place-based research allows for a better understanding of global social-ecological dynamics, and how transformations towards sustainability are often triggered at the local scale through the co-construction of local solutions.

PECSII will build on previous PECS efforts to synthesize across sites and will highlight recent advances towards more successful transdisciplinary place-based research. Early PECS efforts were aimed at establishing a conceptual and methodological framework and at fostering the endorsement of projects as well as the establishment of working groups. Workshops held in Stockholm in 2013 and in Montpellier in 2014 led to a PECS special issue in Ecology and Society. The first PECS Opens Science Conference in 2015 in South Africa expanded the community and the range of projects and working groups, and was instrumental for quick starting new research approaches and fostering synthesis publications.

PECSII will welcome 350 participants from nearly 200 organizations, including research institutes, schools, universities, environmental NGOs, governments, consultants, as well as organizations of rural producer, of indigenous groups, of civil rights defenders and artists, from 35 countries spanning all continents.

We are looking forward to our very intense three-day program that is designed to foster debate, the discussion of new insights, the development of conceptual and methodological approaches, and the strengthening of a global community of practice. Plenary sessions, symposia, flash workshop, innovative and immersive sessions, speed talk sessions and posters sessions are all set up in ways to promote active exchanges among participants.

We have also set up additional activities to unravel interactions in a wide range of contexts. Pre- and post-meeting workshops and courses, field trips, and cherry picked cultural activities will further nourish our interconnections.

Enjoy this wonderful academic setup developed for you and by you and please make sure to take advantage of the wonders that the city of Oaxaca offers.

Albert Nörstrom

Executive Director of PECS

Patricia Balvanera

Chair of the Local Organizing Committee of PECSII

bureaucratic and legal compliance traps seem to constrain the potential of SAM to promote systemic learning.

Grasping vulnerability transfers in global change adaptations combining fun-mindfulness exercises and serious games (1033)

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Biodiversity hotspots exposed to increasing anthropogenic and climatic uncertainties, coastal areas provide excellent laboratories to study global change adaptations. Integrated coastal zone management, set-up as a replicable process, often fail to address challenging wicked issues. Indeed, simultaneous adaptations occurring at different scales or in different activity sectors often result in maladaptations such as vulnerability transfers that impede global sustainability. Addressing these transfers raise conceptual and practical issues. To tackle these, we ran participatory workshops in South Africa, with contrasted and often segregated stakeholders. The workshops started with fun care-giving and mindfulness exercises, to encourage dialogues and co-learning. Participants were then invited to play on a participatory device representing the multi-scale and multi-sector governance of coastal systems. Inspired by Anderies et al.'s (2004) Robustness Framework, the device was designed as a serious game in which players manage public infrastructures in response to contrasted environmental scenarios. In order to represent the decentralized aspect of the governance, each player was responsible for a given sector of activity with clear objectives at given scale and had to cooperate with the others to shape collectively future conditions on their territories. A simple algorithm computed the social, economic and environmental evolutions of the territory based on players' decisions. Combining experts' knowledge (practitioners and scientists) in the design of the game through pre-workshop interviews allowed to build a place-based game meaningful to local stakeholders. Serious games provide realistic boundary objects to grasp cross-sectoral and multi-scale vulnerability transfers around global change adaptations.

Knowing when to break down silos: principles for enhancing the transformative capacity of social-ecological systems (1034)

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The notion of silos or insularization implies barriers to cooperation, information flow and trust in social systems, or energy and gene flow in ecological systems. Most scholars assume that silos are bad and that repairing connectivity in social-ecological systems strengthens resilience. While this assumption might be correct, it remains unclear whether well-connected systems are more adaptive than poorly connected ones. In this paper we draw on robustness-vulnerability theory, resilience, landscape ecology and social network theory to understand why certain systems lack transformative capacity, while others don't. Based on case studies, we develop principles and build a framework for enhancing the transformative capacity in social-ecological systems, using silos as a metaphor.