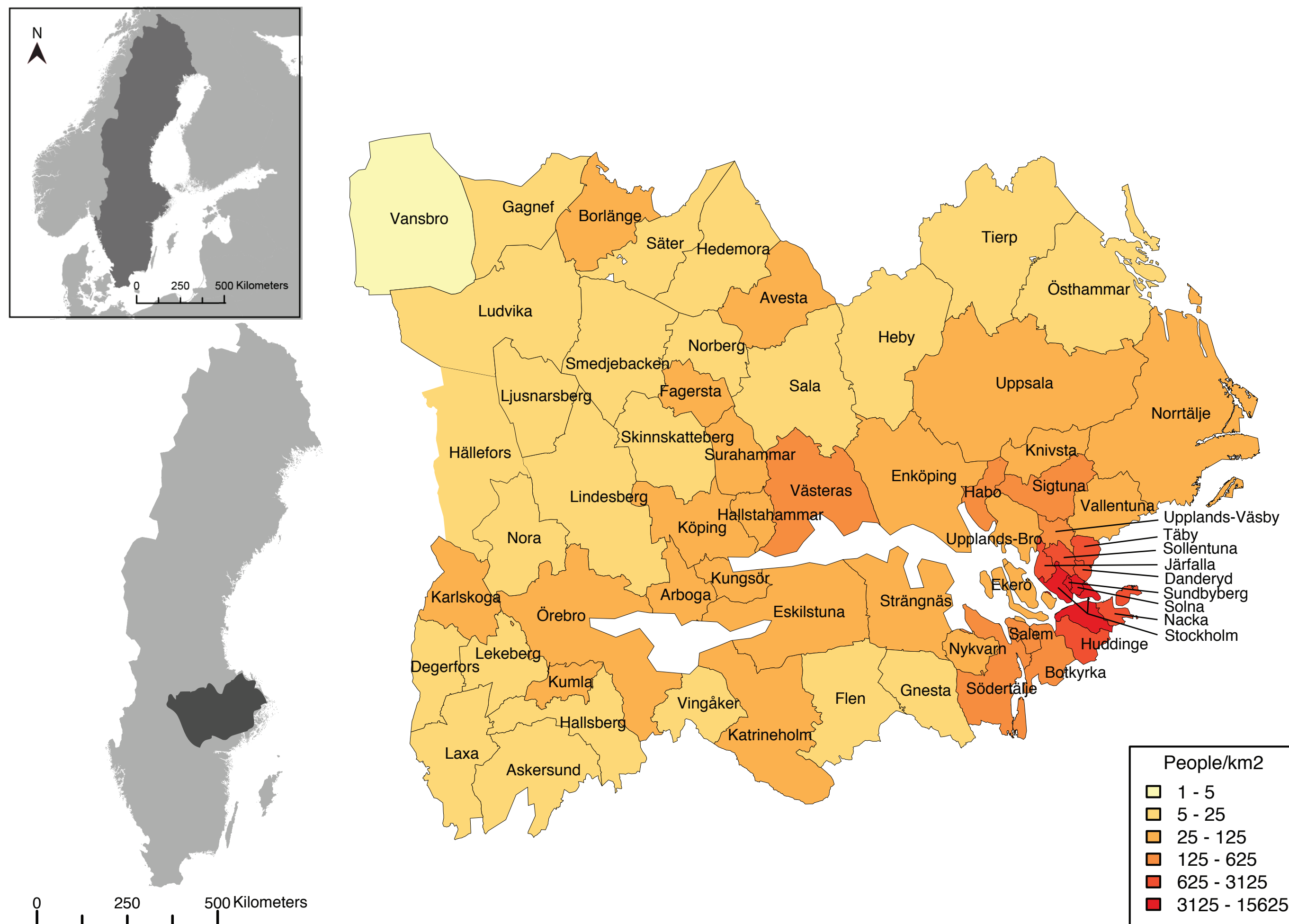


Social-ecological dynamics of ecosystem services in the Norrström Basin in Sweden (SEEN): a core regional case-study of PECS

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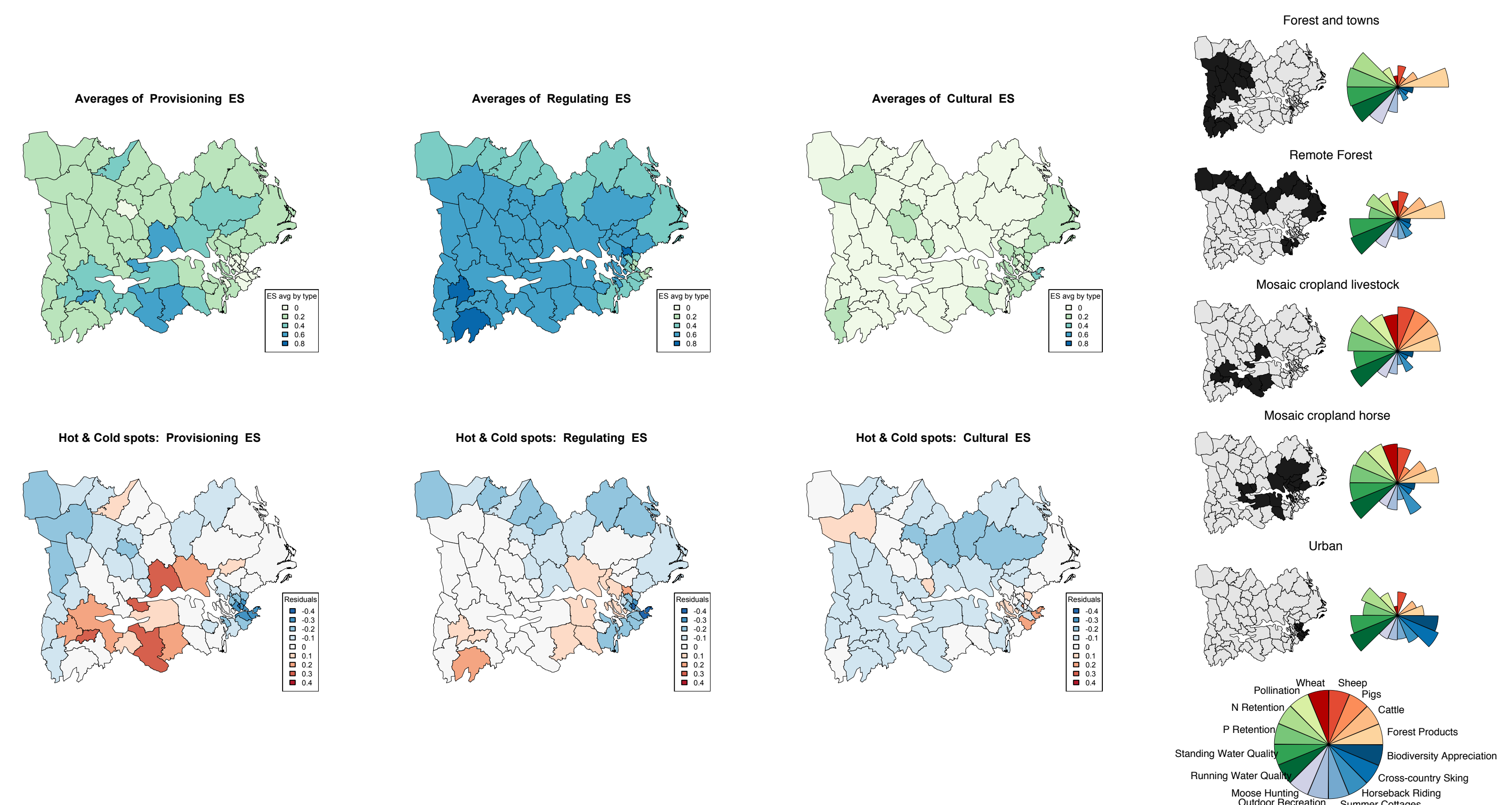


STUDY REGION

The Norrström drainage basin is situated in south-central Sweden and covers 22 650 km². The region is heterogeneous in terms of dominating land cover and land uses and includes two of Sweden's largest lakes, Lake Mälaren and Lake Hjälmaren. Agricultural land dominates the near surroundings of lake Mälaren while the north-west is to a large extent dominated by forest. The eastern part of the region is heavily influenced by the city of Stockholm and its extended metropolitan area. The production landscapes have undergone great changes since the 1950s, either through reforestation and a shift away from full-time family farming or development towards larger farm units and intensified use. The waters in Norrström provide several important ecosystem services. Lake Mälaren, for example, is the main regional water supply for 1.5 million people in the Stockholm region. Norrström is also famous for salmon fishing, and the surroundings of Lake Mälaren are known for their high natural and cultural values (including outdoor recreation).

SPATIAL PATTERNS OF MULTIPLE ECOSYSTEM SERVICES

SEEN will investigate how social and ecological factors interact to co-produce multiple ecosystem services and how difference management and governance settings contribute to their production and maintenance. The first step in this process will be to explore and apply new methodologies to identify and measure ecosystem services that are based on publically available social and ecological data. The goal of this work is to simplify the analysis of ecosystem services by incorporating both social and ecological elements. To further develop ecosystem services as a tool for use in landscape management and development, we want to develop the concept of social-ecological indicators for ecosystem services. These indicators comprise social and ecological features that when present indicate the presence of a give ecosystem service.



ASSESSING RESILIENCE

Building resilience is spreading as a policy agenda and different actors in society are trying to meet the growing demand for tools and guides on how to operationalize it (e.g. the UN campaign "Making Cities Resilient" and the Rockefeller Foundation's "100 resilient cities"). If the scientific community wants to play an active part in the translation of resilience to practice, now is the time to do it. SEEN will engage in this translation by studying one of the methods for how to operationalize resilience, the Resilience Assessment Workbook (Resilience Alliance 2010), and explore what it contributes to local and regional planning within the Norrström region in Sweden. Participatory Resilience Assessments will be carried out in local municipalities and on a regional scale. This research will strengthen the dialogue between research and practice through the resilience assessment processes themselves, as well as by creating a network of scientists and practitioners for resilience in planning.



Programme on
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The Program on Ecosystem Change and Society (PECS) is an initiative jointly sponsored by ICSU and UNESCO, and coordinated by the Stockholm Resilience Centre. It aims to integrate research on the stewardship of social-ecological systems, the services they generate, and the relationships among natural capital, human wellbeing, livelihoods, inequality and poverty. The principal approach of PECS research is comparisons of place-based, long-term social-ecological case studies. PECS is also developing and facilitating a set of dynamic, interdisciplinary working groups that focus on different cross-cutting topics. Visit the website at www.pecs-science.org