

Climate change, community response and multilevel governance – Final report

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Aim

The aim of this project has been to build a Nordic network for research on local climate adaptation and mitigation in the context of multilevel governance. It has organized three workshops to discuss local climate policies in the context of sustainable development, challenges of participatory research, and the role of national and international climate politics for local actions. Collaborators in addition to SEI are Western Norway Research Institute; CICERO; Northern Institute for Environmental and Minority Law (Arctic Centre, Rovaniemi); Department of Social and Economic Geography, Umeå University; and Helsinki University of Technology.

Activities and results

The first workshop was held in Sogn og Fjordane September 28-29, 2008, hosted by the Western Norway Research Institute. The meeting provided an overview of ongoing research activities,¹ as well as an opportunity to participate in a local policy discussion regarding regional responses to climate change.² A key conclusion from this meeting was that the capacity for local climate adaptation is best understood in the context of the historical development of environment, energy and climate policy at the national and local levels. The discussions also highlighted that vulnerability and adaptation are much more in focus in today's local climate debate than previously, where energy issues and sustainable development in the context of Agenda 21 have been the major issues of concern. Nevertheless, it was apparent that in local contexts, climate adaptation and mitigation are likely to be part of the same discussion. This was well illustrated in a hearing on the regional plan for climate and environment, to which both the Western Norway Research Institute (the workshop hosts) and SEI provided input. A third conclusion from the workshop was that although national and international policy initiatives have a major role in defining the playing field for local policy actors, horizontal networks are also starting to play an important role. An example from Sogn og Fjordane was how municipalities that are forerunners in adaptation planning serve as inspiration for other communities.

¹ Mistra SWECIA - SWedish Research Programme on Climate, Impacts and Adaptation – Mistra; EUR-ADAPT: Organising Adaptation to Climate Change in Europe project – VR; DAMOCLES Developing Arctic Modeling and Observing Capabilities for Long-Term Environmental Studies - EU (and Search for DAMOCLES an SSA project); CAVIAR Community Adaptation and Vulnerability in the Arctic Regions – NRC 2007-2010; NORADAPT – Community Adaptation and Vulnerability in Norway – NRC 2007-2010; PLAN – Potential Limits to Adaptation in Norway – NRC; ACTOR – Arctic Climate Change, Tourism and Outdoor Recreation – NRC; Adapting to Climate Change SIP – NRC; NORACIA – an assessment project - Ministry of Environment; Civilclim – RCN; Storms, slides, floods, and oil spills – liability, authority, roles, and financing of protective measures - KS, The Norwegian Association of Local and Regional Authorities; TRANSFORM: Transatlantic Policy Options for Supporting Adaptation in the Marine Arctic; EU Canada Relations in Law of the Sea and Ocean Governance; Finnish Mining Law and comparative mining legislations project.

² For documentation see [www.sfi.no/cmssff/cmsspublish.nsf/\\$all/9723190A96E4BED1C125748300279DC1?OpenDocument](http://www.sfi.no/cmssff/cmsspublish.nsf/$all/9723190A96E4BED1C125748300279DC1?OpenDocument) and www.vestforsk.no/www/show.do?page=6&articleid=2310.

The second workshop was hosted by SEI and held in Stockholm January 29-30, 2009. This was mainly a working meeting focused on the tasks of joint articles and joint research proposals. Input to the process was provided by prepared presentation about social learning as an analytical approach, including some initial results from SWECIA's Stockholm case study (Åsa Gerger Swartling, SEI), and analytical issues for understanding determinants of adaptive capacity at different levels of governance (Carina Keskitalo, Umeå University). Further work on the joint article was based on common observations from on-going or past empirical studies along the themes of determinants for adaptive capacity and historical development of the national context for local climate adaptation in Norway, Sweden and Finland. In line with the idea of learning about adaptation-relevant activities in the various countries, the workshop participants visited the Swedish Environmental Objectives Secretariat at the Environmental Protection Agency and had a discussion with Tom Hedlund and Anna Forsgren. We were briefed about plans for next steps, including analysis of how climate change may affect the possibilities of reaching many of the environmental goals. The meeting also provided an introduction to Swedish work on climate change and vulnerability and division of responsibilities in Swedish environmental governance. In addition, the participants made a short tour at Slussen, where Peter Rudberg gave an introduction to some adaptation challenges related to water level and water quality in Lake Mälaren.

After networking and joint article writing, the participants in the Nordic CIRCLE network met for its third and final workshop in Rovaniemi, Finland, in late August 2009. Our local host was Northern Institute for Environmental and Minority Law at the Arctic Centre, University of Lapland. The program was a mix of presentations highlighting adaptation work in Finland and discussions about draft articles and future networking interests. Professor John Moore (Arctic Centre, University of Lapland/Thule Institute, University of Oulo/Beijing Normal University) presented an update on estimates of sea level rise, where significant new knowledge has emerged since the 2007 IPCC report. Dr. Lasse Peltonen (Helsinki University of Technology) presented an analysis of Finnish research on adaptation and how it has evolved over time. In spite of high profile regarding national adaptation strategy, he noted that in the past 10 years research efforts have fallen behind and that most of the work has been carried out in fairly small programs with direct links to the ministries. It has mainly focused on sectors with applied, sector-oriented approaches, leaving cross-disciplinarity along with regional or local realities out of the picture. Therefore, a comprehensive understanding of adaptation in Finland is still missing. Peltonen highlighted a need for comparative studies and also research about communication: how to move from climate science to socially robust knowledge. Dr. Leena Suopajarvi (Univ. of Lapland) provided an introduction to the local climate adaptation discussion in Rovaniemi, based on results from the project Clim-ATIC. She highlighted some of the challenges of working within a local political context and how climate adaptation issues become intertwined with mitigation and with local priorities and conflicts about development. She highlighted in particular the need to analyze the communication processes in providing climate information in local contexts. Hannu Heikkinen (Thule Institute) presented work from the project VACCIA (Vulnerability Assessment of ecosystem services for Climate Change Impacts and Adaptation). He highlighted in particular some of the challenges in Lapland, including issues surrounding tourism and its dependency of snow. Rather than focusing on predicting the future, the project is about enhancing local cognitive and communication capability to face whatever changes will occur. He illustrated some successful uses of narratives, rather than scenarios, as ways of communicating and engaging local stakeholders in the discussion.

Drafts of two joint articles had been circulated before the meeting. Based on feedback and discussions during the workshop, work on the articles has continued after the meeting and they will be submitted for publication in peer-reviewed international journals before the end of 2009. (Details under Publication and communication.) At the Rovaniemi workshop we also discussed possibilities of future collaboration with the conclusions that there is

- strong interest in continued networking, including widening the network to other relevant research groups (e.g. the other CIRCLE projects);
- an interest in a Nordic conference on climate adaptation;
- common interest among several groups about local adaptation challenges, including issues of communication and methods for engaging with stakeholder and the practical implementation of adaptation in the local setting;
- common interest in multilevel analytical perspectives, including ways of translating the local to the global and vice versa;
- interests in comparative studies, e.g. comparing methodologies used for research/communication/engagement at the local level.

Based on this discussion and the partners' various capacities to engage as drivers of future collaboration, SEI later took the initiative to gather old and new Nordic partners in developing a proposal for the call from Nordforsk about top research initiatives. The proposal is a plan for a NORDic CLimate change ADaptation research Network (NORDCLAD-Net) that will organize two Nordic conferences on adaptation research and practice as well as a research school. Should funding be granted, the first conference is planned for Stockholm in 2010 and a second conference planned for 2012 in Finland. Proposed training for young researchers will run through the three years of network activities and have the need for new inter-disciplinary perspectives on the inter-relationship between mitigation and adaptation strategies to climate change as a unifying theme. NORDCLAD-Net will operate in a highly open and communicative spirit in dialogue with other researchers and the wider society.

Publications and communication

- Research articles to be submitted:
 - Nilsson, A.E., Eckerberg, K. Peltonen, L. Juhola, S. Husabø, I. and Aall, C. *Adaptation science and policy in three Nordic countries*
 - Keskitalo, C. Dannevig, H., Hovelsrud, G. H., West, J.J., Gerger Swartling, Å. and Aall, C. *Local vulnerability and adaptive capacity in developed states: examples from the Nordic countries and Russia*
- The preliminary results from these articles were presented in a poster at the CIRCLE ERA-Net Final and Outlook Conference, Vienna September 9-10, 2009, at which Annika E. Nilsson from the project also participated (<http://www.circle-era.net/events/final-and-outlook-conference-vienna-2009/>).
- Presentation of preliminary results at Nordic CIRCLE seminar for organized by Swedish Environmental Protection Agency May 19, 2009. Participants from the network were Katarina Eckerberg, Annika E. Nilsson, Grete Hovelsrud, Hallvor Dannevig, and Mika Flöjt. Other participants included the other Nordic CIRCLE projects and funders.
- Submitted proposal: NORDic CLimate change ADaptation research Network (NORDCLAD-Net)

- Short summary of activities has been presented via the websites of SEI (www.sei-international.org) and Western Norway Research Institute (www.vestforsk.no)

Conclusion and suggestions

In summary, the CIRCLE ERA-Net project *Climate change, community response and multilevel governance* has provided an opportunity to start building a Nordic network among researchers interested in adaptation to climate change and has fostered an analytical discussion that places local climate responses into a larger Nordic and international context. Key conclusions from this work are that

- The international focus on mitigation in climate policy has delayed attention to adaptation, but experiences of vulnerability have opened a policy window for starting the discussion.
- Placing adaptation on local agendas requires networks that cut across governance levels, including regional capacity and responsibility.
- National adaptation policy initiatives are necessary but not sufficient for local adaptation responses.
- In Nordic peripheral regions, local adaptive capacity is often linked to the ability to compete in market-based systems, including economic resources, technology, and infrastructure.

A conclusion regarding the process is that most of the writing of articles has been funded by other projects which have benefited from the network. Moreover, it should be noted that the network would not have been as productive had that funding for research projects not already been present.³

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³ For SEI, these projects include ‘Social learning and multilevel environmental governance’ funded by Vetenskapsrådet 2009-2010, and Mistra-SWECIA. For Umeå University, these include the EUR-ADAPT: Organising Adaptation to Climate Change in Europe project led by Carina Keskitalo and funded by Vetenskapsrådet 2008-2011, which compares adaptation to climate change in different national and multi-level contexts in Europe at large. For project in the countries, see footnote 1.