



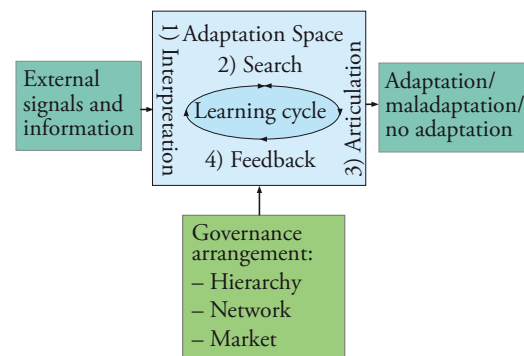
Adaptation and Mitigation in Urban Planning and Waterfront Development

This project focuses on urban planning and water front developments in Norway. We study how land owners, developers, public planning officers and politicians integrate and synthesize knowledge/information about vulnerability to climate change in their local community and how this information influence the location, design and construction of urbane development proposals and planning.

The idea of the “compact city” has been promoted as a solution for sustainable urban development in Norway as well as in the EU, by political authorities and within the professional planning discourse. The justification for this normative theory about a “good city form” is that it decreases the volume of transportation due to decreasing travelling distances and increasing use of non-motorised transportation, thus mitigating greenhouse gas emissions. In addition, a compact city will lead to less consumption of energy in buildings because of more dense building types. Increasing densities within the urban area, however, make our cities more prone to flooding and extreme weather conditions due to climate change, depending on the locations along the coast and rivers. New waterfront developments are also vulnerable due to sea level rise and spring tide.

Case studies will be conducted in three urban areas in Norway during 2008; Fredrikstad/Sarpsborg in south east part and in the estuary of Glomma (the largest river in Norway), Bergen in the west part and Hammerfest in the north part. These are selected on the bases of earlier experiences with extreme weather conditions, new waterfronts development projects, as well their vulnerability under scenarios of future climate change.

We draw on two theoretical traditions in order to assess the institutional and social drivers or barriers to adaptation: Theories on organisational learning and governance theory. We assume that different governance modes (hierarchy, networks and markets) will influence the learning cycle regarding adaptation both for the relevant organisations and the interaction between the different actors involved in urban planning and developments processes. The model is based on Berkhout, Hertin and Gann (2004): Learning to adapt: Organisational adaptation to climate change impacts. Tyndal Working paper 47.



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The projects is a part of a large, coordinated social science-bases research project that analyzes the potentials of and limits to adaptation as a response to climate change in Norway, shorten as PLAN. For more information about the PLAN- project: see <http://iss.uio.no/forskning/prosjekter/plan>