

## Project information

### Project title

Adaptive capacity to climate change in local land-based activities in Northern Norway - policy, regulations, governance and innovation

### Year

2013/2014

### Project leader

Helene Amundsen, CICERO

### Participants

Participants in delprosjekt A36177:

- Helene Amundsen, CICERO (project leader);
- Anniken Førde, UiT
- Grete K. Hovelsrud, Nordlandsforskning & CICERO (Project leader main project)

Participants in main project:

- Monica Tennberg, University of Lapland
- Carina Keskitalo, University of Umeå
- Halvor Dannevig, Carlo Aall, Kyrre Groven, Vestlandsforskning
- Bob van Oort, CICERO
- Ingrid Bay-Larsen, Nordlandsforskning
- Audun Sandberg, UiN
- Amy Lovcraft, University of Alaska Fairbanks
- Michael Cox, Graham Epstein, Indiana University

### Flagship

Terrestrial, Theme: Capacity for adaptation in indigenous people and local societies

### Funding Source

Fram Centre, NRC (CAVIAR II)

### Summary of Results

This project is not completed.

Main objectives and tasks for 2013 were to develop two case studies and undertake field work to address the research question: How is the adaptive capacity in the agricultural sector affected by regulations and policy in cases of both i) proactive adaptations: “climate entrepreneurs”, and ii) reactive adaptations: natural resource users exposed to/affected by natural hazards.

For i) climate entrepreneurs, the aim was to explore the practices of actors that through creative combinations of resources create new activity and hence challenge established patterns. A case study of ‘Rett hjem’ organic vegetable subscription with home delivery was developed. The trial initiative took place during autumn 2013 by five organic producers in Troms in collaboration with Troms Landbruksrådgiving. The period of vegetable box delivery, 12.09 – 03.10, was shorter than planned, due to damage to produce. We are currently in the middle of field work, undertaking in-depth interviews with selected “climate entrepreneurs”, who are performing new ways of organising the distribution of organic produce. We investigate how they manoeuvre in current policy regimes, their discourses of sustainability and sense of responsibility regarding climate change, and analyse specific barriers and drivers of these processes.

For ii) a case study of the July 2012 flood in Målselv and the compensation and insurance system for affected farmers was developed. This flood event was the largest flood in Målselv since 1946, and the first large flooding since the river was regulated in the 1960s. A combination of large precipitation and snow melt led to the event, which left 5000 dekar of agricultural land damaged. Due to structural changes in the agricultural sector, many farmers are renting fields outside their own properties. The compensation from the Norwegian National Fund for Natural Damage Assistance (Statens naturskadefond) requires the farmers to pay an excess for each plot of land, which has been deemed too high for many farmers, with the potential consequence that rented land will not be restored to pre-flood conditions.

We are currently in the middle of field work. We will conduct interviews with farmers and local government officials, with a particular focus on the regulations concerning

We have made contact with the local farmers’ organisations, who have suggested farmers who will be relevant to interview for this study. Three farms or more will be visited in early December, in addition to leaders of local farmers’ organisations. Agricultural officials within the municipality will be interviewed to discuss the role of the municipality in the process of negotiating extra compensation for farmers after the flood.

Natural hazards, such as flood and slides, are expected to increase in future, and through this case study we will understand better how compensation system, as well as land-ownership, is regulated, to ensure adaptive capacity of farmers.

## For the Management

Findings from these cases will be relevant for agricultural management at the municipal, county council, county governor and national (Norwegian Agricultural Authorities and Ministry of Agriculture and Food) levels, with respect to analyses of natural hazards compensation schemes and consequences for farming in a climate change context, and for new practices for adapting to climate change in the agricultural sector.

## Published Results/Planned Publications

Planned publications in international journals: one from each of the two case studies.

1. Contested discourses of sustainability and responsibility
2. Compensation schemes for farmers in a changing flood regime

## Communicated Results

Throughout the project we are in continuous dialogue with project participants and interviewees. When analyses are completed we will discuss results with users. Particularly for ii) we will additionally report to relevant regional and national authorities.

## Interdisciplinary Cooperation

The project is a collaboration between researchers with experience from climate change adaptation research at CICERO with UiT and their experience of research on entrepreneurship and social praxis. These two fields of research have not been matched before and as such this project represents a new approach to climate change adaptation research. The field of climate change adaptation research is a relatively new research field, and it benefits greatly from including new perspectives.

Disciplines involved in this project: Social sciences, human geography, anthropology.

## Budget in accordance to results

The additional funding from the Fram Centre allowed for including specific cases to the main project, which would otherwise not be feasible. The cases exemplify how the policies are working in practice and to investigate specific cases of innovative practice, particularly with respect to adaptive capacity in the agricultural sector in Northern Norway. In particular focusing on “climate entrepreneurs” represents a new and more agency-oriented perspective, adds to the understanding of adaptive capacity. When the case studies are completed, they will increase the understanding of adaptive capacity to climate change in the agricultural sector.

In addition, support from the flagship allowed for including the expertise on entrepreneurship processes of Anniken Førde in the project, and gives it a stronger Fram Centre foundation by including the University of Tromsø in the project team.

However, the funding from the Fram Centre allows for only two small case studies, and more case studies of within these topics are needed.

## Could results from the project be subject for any commercial utilization

No

## Conclusions

1. Preliminary to indicate since the project is not yet completed. However, see the need for more concrete case studies on both reactive and proactive adaptation processes with regards to climate change, and specifically within the agricultural sector.
2. This is a small project with limited scope to develop methodology. The project highlights the need for interdisciplinary approaches; and the need for exploring concepts and processes related to climate change adaptation through concrete case studies.