

# Analysis of Regional Climate Strategies in the Barents Region

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## FOREWORD

Climate change is a global phenomenon with especially harsh effects on the Arctic and northern regions. The Arctic's average temperature has risen at almost twice the rate as elsewhere in the past few decades. Since 1966, the Arctic land area covered by snow in early summer has shrunk by almost a fifth.

The Barents Region consists of the northern parts of Norway, Sweden, Finland and Russia (i.e. the European part of Russia). Climate change will cause serious impacts in the Barents Region because of its higher density of population living under harsh climatic conditions, thus setting it apart from other Arctic areas. In many cases, economic activities, like tourism, rely on certain weather conditions. For this reason, climate change and adaptation to it is of special urgency for the region.

Regional climate change strategies are important tools for addressing mitigation and adaptation to climate change as they can be used to consolidate the efforts of different stakeholders of the public and private sectors. Regional strategies can be important factors in achieving the national and international goals.

Climate change strategies and programmes have been implemented in several Finnish cities. The regional climate change strategies and programmes in northern Finland have been prepared according to certain procedures together with specific processes. The implementation of the strategies is tailored to be the most appropriate for each region. In general, the same project leaders and participants were involved throughout the entire process. If this, however, was not possible, regular communication took place between the former project leaders and participants and the new ones. This allowed for seamless evaluation of the processes throughout northern Finland.

The study evaluated how the national climate change goals were implemented in the regional and local strategies and programmes in northern Finland. The specific goal was to describe the processes by which the regional strategies were prepared and implemented, and how the work was expanded to include the whole of northern Finland. Finally, the Finnish preparatory processes were compared to case examples of processes for preparing climate change strategies elsewhere in the Barents Region. This analysis provides examples of good practices in preparing a climate change strategy and implementing it.

This report has been prepared as a part of the Finnish Chairmanship of the Barents Euro-Arctic Council's Working Group on Environment 2012–2013. The Ministry of the Environment of Finland commissioned the Thule Institute, University of Oulu, to carry out the study. The project was overseen by the Ministry and led by Henna Haapala, Ministerial Adviser. Satu Himanen, Project Leader, from the Thule Institute wrote the report. The project work was supported throughout by a team consisting of Jouko Inkeröinen, Research Coordinator, Kirsi Latola, Research Coordinator, and Erkki Alasaarela, Research Professor, from the Thule Institute, and Tero Väisänen, Head of Unit, from the Finnish Environment Institute.

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# 1 Background and objectives

In the mitigation of and adaptation to climate change it is often necessary to look at larger units than one municipality, and regional strategies can be important factors in achieving the national and international goals. In Finland the short history of regional climate change strategies dates back to the latest National Climate and Energy Strategy (2008), which recommended that regions and sub-regions initiate regional strategies and action plans based on the national strategy. Regional climate change work has found its place in Finland quite well: most of the regions are active and at least seven had established a regional climate change strategy by the end of 2011. In northern Finland, all three regions – Northern Ostrobothnia (also referred to as the Oulu Region), Lapland and Kainuu – have established regional strategies.



Figure 1.  
The three regions of Finland that are part of the Barents Region, the Oulu sub-region and the cities of Rovaniemi and Kajaani. The Oulu sub-region is part of the Northern Ostrobothnia region and includes the City of Oulu and 9 municipalities around it.

Strategic planning should be viewed as a practice, or a set of interrelated practices, and it is important to find out how experiences from one situation or region may be applied in another, even though exact replication is not possible (Bryson 2010). Northern Finland offers an excellent opportunity for this: the three regions have somewhat similar natural conditions and the preparation processes of the climate change strategies were undertaken at about the same time. The regional climate change strategies and programmes in northern Finland have been prepared according to certain procedures and specific processes. Further, some participants have been involved in several processes and benchmarking has occurred, but, however, the processes have been strongly tailored to each region.

The purpose of this study was to evaluate how the national climate change goals were implemented in the regional and local strategies and programmes in northern Finland. The specific goal was to describe the processes by which the regional strategies were prepared and implemented, and how the work was expanded to include the whole



of northern Finland. Finally, these Finnish preparatory processes were compared to case examples of processes for preparing climate change strategies elsewhere in the Barents Region. This analysis provides examples of good practices in preparing and implementing a climate change strategy.

The strategy documents were reviewed to give an overview of each strategy process. In addition, 2–4 key persons from each strategy process were interviewed to obtain a relevant insight into the process, its success factors and challenges. A core region in the analysis was Northern Ostrobothnia. In addition to the regional level, the review also includes examples of climate change strategies and programmes at the local level (Oulu sub-region, Rovaniemi, Kajaani, see map in Figure 1).

As climate change is a global issue, two examples from outside the borders of Finland were reviewed. The case examples were chosen from the Barents Region, which includes the northernmost parts of Finland, Sweden, Norway and Northwest Russia. The characteristics and challenges, such as harsh climatic conditions, a fragile environment and long distances, are somewhat similar throughout this region. **The Barents Euro-Arctic Region** is Europe's largest region for interregional cooperation, and this cooperation is organised on two levels –national and regional.

## 2 Preparatory process for regional strategies on climate change

### 2.1

#### Northern Ostrobothnia

##### 2.1.1

#### Regional strategy process

One of the first regional climate change strategies in Finland was the regional project on preparing a climate change strategy that was initiated in the Northern Ostrobothnia region in 2009 (Table 1). Approximately 190 experts from nearly 100 organisations were involved in the two-year process that was aiming for “a regional state of will” on how to incorporate climate change issues into discussions and how to start a continuous adaptation process (Figure 2). The work was mainly conducted in sector groups, making the approach strongly bottom-up. The climate change strategy was accepted at the end of 2010, after which the Regional Council has included climate change as one of the key themes in regional planning. The climate change work has also continued in different organisations and sectors, but lack of coordination has slowed down the implementation phase of the strategy as a whole.

Table 1. Project details for the regional climate change strategy in Northern Ostrobothnia

Project	Regional Climate Change Strategy of the Oulu Region (Pohjois-Pohjanmaan ilmastostrategia)
Project coordination	Council of the Oulu Region
Funding	European Regional Development Fund (80%) channelled via the Northern Ostrobothnia ELY Centre Council of the Oulu Region, City of Oulu, City of Raahen (together 20%)
Duration	January 2009–March 2011

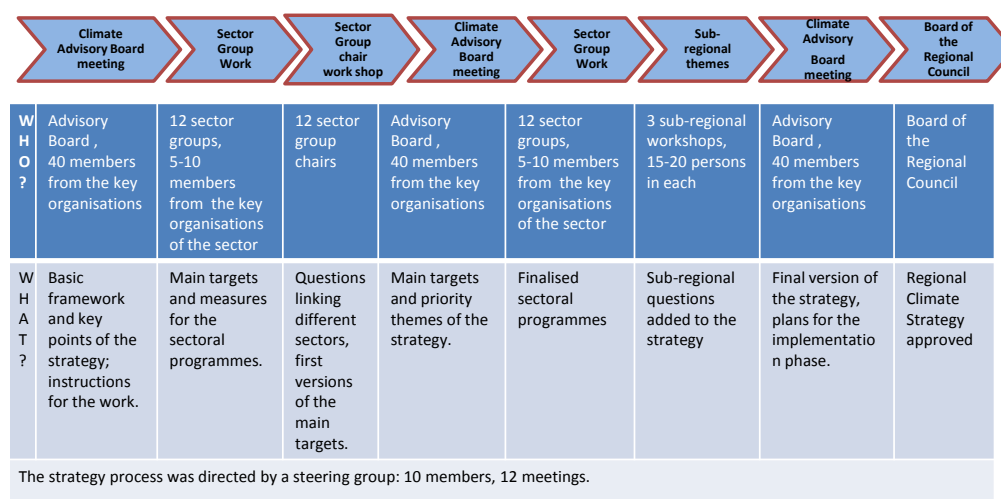


Figure 2. Preparatory process in Northern Ostrobothnia for the regional strategy on climate change.

## 2.1.2

### Oulu sub-region

The work on a climate change strategy in the Northern Ostrobothnia region had started already before the regional strategy process was initiated: already in 2009, the Oulu sub-region (excluding the municipality of Haukipudas) had finalised its own climate change strategy. The municipalities are committed to mitigating climate change, and one objective is to permanently reduce their greenhouse gas emissions. The climate change strategy of the Oulu sub-region states the main goals of and means for mitigating and adapting to climate change. Implementation of the strategy has varied by municipality. The city of Oulu implements the strategy, for example, through its Climate Change Programme ILMO, one of the city's five development programmes.

## 2.2

### Lapland

## 2.2.1

### Regional strategy process

In Lapland the regional strategy process was started in 2010 with the goal of launching a continuous process that would take into account issues related to climate change in Lapland (Table 2).

The strategy also determined practical means and measures for mitigating and adapting to climate change. The strategy has been prepared as an open process on the basis of the existing data, the results of background studies and the views formed in the workshops and meetings (Figure 3). After an extensive background study phase the actual strategy process was carried out in the spring of 2011, when 12 workshops

and numerous other meetings were held. A special feature in the regional climate change strategy of Lapland is a strong focus on the economy and livelihoods, especially on how the impacts of climate change affect Lapland's economic competitiveness.

Table 2. Project details for the regional climate change strategy in Lapland

Project	Regional Climate Change Strategy for Lapland (Lapin ilmastostrategian laatiminen)
Project coordination	Regional Council of Lapland
Funding	European Regional Development Fund, the Lapland ELY Centre (80%) Regional Council of Lapland (20%)
Duration	March 2010–February 2012

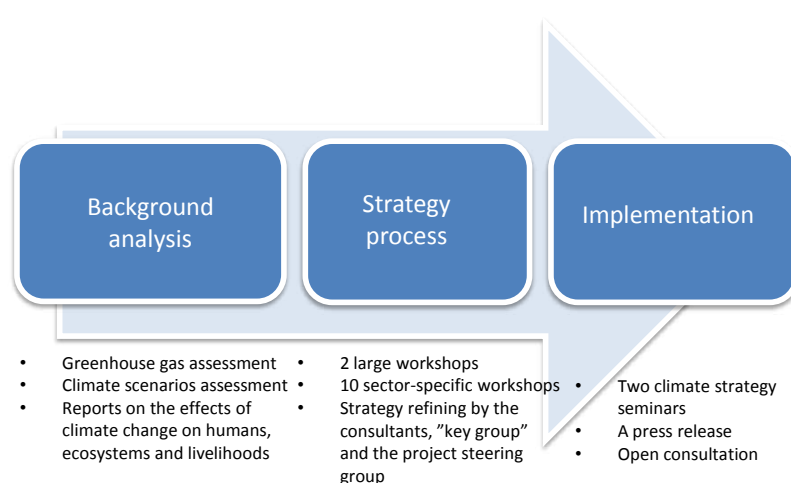


Figure 3. Preparatory process in Lapland for the regional strategy on climate change

## 2.2.2

### City of Rovaniemi

The idea of implementing a climate change programme evolved in the city of Rovaniemi already in 2010 when the Regional Council of Lapland started the regional strategy process. As Rovaniemi's attempts to join the regional process were not successful, the city decided to draw up its own climate change programme simultaneously with the regional strategy work. Rovaniemi's climate change programme is a concrete one that focuses on the city's own activities and issues which it can influence. The programme also combines different climate change measures already implemented in Rovaniemi. The Rovaniemi City Council approved the climate change programme in November 2011.

## 2.3

### Kainuu

#### 2.3.1

#### Regional strategy process

In Kainuu the regional strategy process was preceded by a preliminary study of the prerequisites for the regional work on climate change (Mustonen & Ponnikas 2009). The strategy process itself started in 2010 and the strategy was accepted in October 2011 (Table 3). The main method used in the process was theme workshops where authorities and key stakeholders together discussed the effects of climate change, as well as potential targets and measures for mitigation and adaptation. The Kainuu process actively sought public participation and involvement of decision-makers (Figure 4).

The implementation phase has had a slow start in Kainuu: the municipalities have been asked to prepare their own concrete action programmes on the basis of the regional strategy. In addition, a coordination project is to be launched.

Table 3. Project details for the regional climate change strategy in Kainuu

Project	Kainuu Climate Change Strategy 2020 (Kainuun ilmastostrategia 2020)
Project coordination	Joint Authority of the Kainuu Region
Funding	European Regional Development Fund (80%) Kainuu ELY Centre, Joint Authority of the Kainuu Region (20%)
Duration	June 2010–September 2011

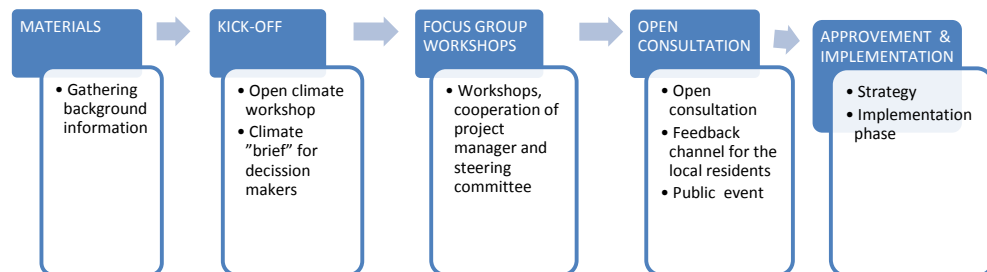


Figure 4. Preparatory process in Kainuu for the regional strategy on climate change

#### 2.3.2

#### City of Kajaani

The city of Kajaani, along with other municipalities in Kainuu, stated that they do not have the resources to initiate their own climate change strategy, but agreed to active involvement in the regional strategy process. Representatives of the city of Kajaani were involved in the steering group and attended the workshops of the regional strategy process. The city has not yet started work on an action programme, but several separate measures related to climate change had already been implemented even before the regional strategy process began, as in many other cities, too.

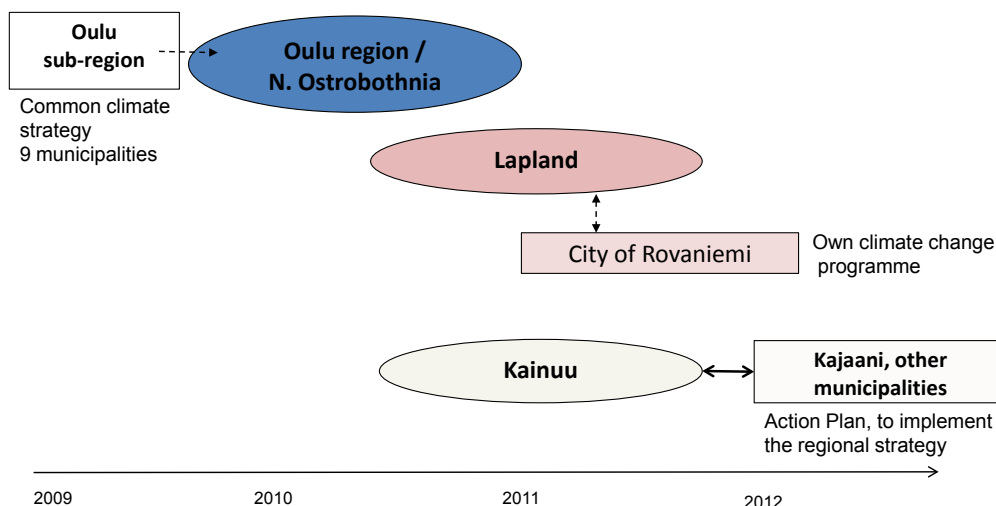


Figure 5. Cooperation and connections between the regional and local processes

Several regions in Finland were working on a climate change strategy more or less simultaneously during 2009–2011. It was known that other strategy processes provide invaluable experiences and “benchmarking” was carried out. Contacts between the three northernmost strategy processes occurred especially in the early stages of the projects: during the project planning and kick-off (Figure 5). Because of its earlier start, the preparatory process of the Northern Ostrobothnia region served as an example for the development of the other two. Even though some elements and ideas were taken from one strategy process and adapted into another and certain influences are apparent, in all cases the processes have been strongly focused on their individual region and its special circumstances.

Cooperation during the latter phases of the strategy processes was less active and the contacts were occasional. As the project personnel needed support and the possibility to exchange ideas, they also sought contacts with other projects and networks on the national level.

## 2.4

### Case studies of climate change work outside Finland

For comparison, two examples from outside the borders of Finland were reviewed. The case studies were chosen from the Barents Region, where the characteristics and challenges, such as harsh climatic conditions, a fragile environment and long distances, are somewhat similar.

#### 2.4.1

##### Västerbotten, Sweden

In Sweden the Government has instructed all county administrative boards to draw up strategies to limit the impacts of climate change and shift to more sustainable development. In Västerbotten, the County Board was responsible for preparing the strategy through broad collaboration with the business community, municipalities, government agencies and other organisations. The collaborative process involved 130 people in producing the measures to achieve environmental goals. The strategy was sent out for wide consultation within the county. In January 2012, a consultation



workshop was conducted to engage in broad discussions about the strategy. The strategy will be followed by an action plan with clear regional targets and measures. The strategy work was financed through government appropriations.

#### 2.4.2

#### Murmansk Oblast, Russia

Even though a strong scientific basis for work on climate change issues exists in Russia, several hurdles such as scepticism and impediments to cooperation between the different stakeholders have hindered the development of regional climate change strategies. Further, a popular understanding has taken hold that climate change is beneficial for Russia, and thus positive effects such as the opening of the northern sea route override the negative ones in public debate. Nevertheless, an assessment of the effects of climate change in the Murmansk area and proposals for mitigation and adaptation in different sectors have been made under a project of the United Nations Development Programme (UNDP) in 2008–2009 (Berdin et al. 2009). As the study is an example of expert work by a group of researchers and consultants, it is not relevant to a comparison between different strategy processes.

However, the experts' suggestions raised the same issues that were also noted in the other regional strategy processes, and the study recommends elaboration of integrated regional climate change strategies as an essential element of regional socio-economic development planning in the future. Further, for the most efficient outcomes, the study points out that cooperation is needed between decision-makers, the business sector, academia, civil society and the general public on various administrative levels. The authors also underline the value of examining approaches successfully tested in other countries.





## 3 Analysis of different strategy processes

### 3.1

#### **National and EU targets on the regional level**

In the European Union member states, regional climate change strategies are a way for the regions to apply the targets set by the European Union and national governments in a regional context. In northern Finland the national targets form the basis for the regional climate change strategies, but all regions have applied them in different ways. The regional climate change strategy of Northern Ostrobothnia commits to the national targets, whereas the region of Kainuu wanted to take it a bit further, and the regional targets are slightly stricter than the national targets. In Lapland, however, a decision was made to strictly concentrate on issues that are clearly controllable by the region itself. No actual greenhouse gas emission target was identified, rather the regional strategy is focused more on adaptation.

Lack of guidelines from the national level was seen as problematic: there are no instructions on how to distribute the national targets on a municipal or regional level, or how to begin work on climate change on the regional level. One of the interviewees suggested that a clear model such as that used in regional planning (where there are guidelines for regional plans, master plans, town plans) would also be useful in the regional climate change work.

In addition to addressing the global challenge of climate change, there are also other reasons for the regions to elaborate a regional climate change strategy. Through a regional strategy it is, for instance, possible to focus on the needs and specific issues of an individual region. Further, through a regional strategy the regions can prepare for any positive outcomes of climate change; thus, ensuring the well-being of the region.

According to the interviewees, the regional scale is suitable for Finnish circumstances, where the municipalities often are too small to carry out this kind of work on their own. On the other hand, even though the conditions are largely the same in the whole of northern Finland, it was commonly stated that preparing a climate change strategy for such a large area rather than for a single region (i.e. Northern Ostrobothnia, Kainuu or Lapland) would not be rational because of differences in the structure of governance and the long distances, for example.

## Strategy process

### Background information

Adequate background information is an important starting point for the strategy process. All the processes were launched by acquiring good basic knowledge of the regional greenhouse gas emissions, and of climate statistics and scenarios for the region. In some regions additional background reports were drafted regarding the effects of climate change on humans, ecosystems and livelihoods.

#### Box 1. Vulnerability assessment of ecosystem services – VACCIA

The Finnish VACCIA project (2009–2011 LIFE07ENV/FIN/000141 Vulnerability Assessment of Ecosystem Services for Climate Change Impacts and Adaptation (VACCIA), funded by the European Union's LIFE+ programme) is an example of how to connect global-scale climate change scenarios to the local and regional scales, where realistic adaptation measures can be planned and carried out.

The VACCIA project analysed the vulnerability of ecosystem services and means of livelihood to climate change.

The project provided detailed descriptions about the methodology and tools for assessing climate change impacts and possibilities for adaptation, as well as an inventory of realistic adaptation measures for key ecosystem goods and services. The methodology and information can be used by stakeholders at local, regional, national and international levels. The project was linked directly to the development of existing and planned national and international policies and networks in this field.

The VACCIA project had four main goals:

- To assess the impacts of climate change on ecosystem services.
- To outline the means of adaptation and convey information to decision-makers and the general public.
- To produce environmental change scenarios and develop modelling, GIS and database solutions for assessing the changes.
- To generate information on adaptation strategies at the national and EU levels and to support local and regional-scale planning and decision-making. Further, to disseminate knowledge on climate change impacts and scenarios, vulnerability assessments and sector-specific adaptation measures to local administration and stakeholders, national administration and stakeholders, and international bodies and networks.

The project was based on the FinLTSER network, a shared research infrastructure between universities and research institutes in Finland. The Finnish Environment Institute coordinated the project and the Finnish Meteorological Institute and the universities of Helsinki, Jyväskylä and Oulu were involved as partners.

The summary of results and other information on the project and climate change can be found from the project web site: <http://www.environment.fi/syke/vaccia>

A vulnerability assessment, where the vulnerabilities and risks of a certain system are identified, is a useful approach for defining challenges, as well as opportunities, for a region. Usually sectoral vulnerability assessments have been made, but also new approaches have been developed. Some results of the Finnish VACCIA project, which analysed the vulnerability of key ecosystem services, were used in preparing the Northern Ostrobothnia regional strategy on climate change (see Box 1 for more information on VACCIA).

In some regions, the lack of economic calculations of the impacts of climate change was seen as a problem. Another problem was the lack of adequate climate and energy statistics. This was especially a problem on the local level, but also regionally: the smaller the unit that was assessed, the more difficult it was to find adequate data.

As important as the reports were, there were also interviewees who stated that too much weight was put on the background reports. They believed the discussions and the process itself were the most important parts. Open discussions are also an excellent way to generate local knowledge on the issue.

Certain principal definitions were agreed on at an early phase of the process in all the three northern regions. Every regional strategy process had an integrated scope that included both mitigation and adaptation. Climate change was also defined to be broader than just an environmental issue, and thus, also the strategy processes were cross-cutting and applied a comprehensive approach. Nevertheless, as all the strategy processes had a regional focus, each strategy had a diverse set of themes. In Northern Ostrobothnia, the sector groups were adopted from Finland's National Adaptation Strategy (2005), whereas the other regions modified the list to reflect better their regional priorities (i.e. priority sectors of the regional economy) (Table 4). While it is questionable whether they are relevant to climate change, they support the incorporation of the strategy into the organisational structures and activities of the province.

Each of the regions prepared its climate strategy through a broad participatory process. Even though this was seen as very laborious, it was strongly stated that the process itself was valuable. The discussions with different stakeholder groups were fruitful and added value to the process. Further, the strategy process was commonly referred to as a learning process: by involving different stakeholders, the participants had the opportunity to learn about the effects of climate change in the region and to develop together new ideas of the roles and responsibilities of different stakeholders. The discussions also helped in disseminating knowledge of the strategy itself and increased the organisational commitment to it.

Table 4. Different sectors or themes included in the regional strategy processes.

N. Ostrobothnia (12)	Lapland (6)	Kainuu (7)
Use of natural resources (3 groups) <ul style="list-style-type: none"> <li>• water resources and fishery</li> <li>• agricultural and food production, forestry</li> <li>• game and reindeer husbandry</li> </ul> Biodiversity Industry Energy Traffic Land use and communities Buildings, construction and housing Health Tourism and recreation Commerce, public procurement and private consumption	Natural resources Industry and mining Tourism and recreation Land use and construction New opportunities Everyday life	Natural resources ICT and electronics Tourism Energy Municipalities Local people Environmental education

### Main determinants

All the three regional climate strategy processes were implemented as projects lasting approximately two years. Already during the initiation phase and project planning there had been discussions whether such a long-term challenge as climate change should be addressed in a short-term project, or whether the climate change work should be included as a permanent task in some organisational context leading to more sustainable activity.

The interviewees also questioned whether the form of funding (project money on a short-term basis) would affect the level of commitment. The strategy processes in northern Finland were all funded by the European Regional Development Fund through the local Centre for Economic Development, Transport and the Environment (ELY Centre), whereas in Sweden the work was financed by government appropriation. In the future it will be interesting to compare the results in Finland with the results of regional climate change strategies in Sweden.

All the strategy processes in northern Finland were coordinated by a local regional council. According to the Act on Regional Development, the regional councils are responsible for regional development and planning in Finland. Additionally, because the councils have experience in regional cooperation and strategy processes, they were often seen as the only option for coordinating the work on preparing a regional climate change strategy. It was also thought that through the regional council the issues highlighted in the climate change strategy would be addressed in regional planning, as well as in other regional strategies and programmes. However, questions were also raised about how well climate change as a theme fits into the regional councils' schemes and how that would affect the organisations' commitments.

For practical project management and implementation, the Northern Ostrobothnia and Kainuu regional councils hired project managers, whereas in Lapland the work was done by a consultant. As the theme is relatively new and the strategy process is in many ways a learning process, many interviewees thought that it is difficult to define precisely the project at an early (contract) phase, and thus an "in-house" project manager was seen to be a more flexible and, therefore, more appropriate solution. Further, the interviewees from Kainuu even brought up the point that the best solution would be to assign the tasks of a project manager to a permanent employee, because, at the end of a project, a fixed-term project manager who is hired only for the strategy process will leave with all the experiences and knowledge gained during the process. One interviewee saw this as a question of appreciation, "The more relevant and important that climate change is perceived by the organisation, the more likely that an "in-house" project manager is appointed." At the same time, using consultants was seen to have several positive aspects. For example, having several consultants can offer a good combination of expertise and possible new insights into the question. A combination of these two was seen to be the best solution: the project coordinated from inside the organisation and consultants used as experts in certain sub-projects. In the Northern Ostrobothnia region the work was strongly focused on the sector-group work. The process was seen to be laborious, but the interviewees felt that such a bottom-up approach can allow a better identification of local priorities and needs. In Kainuu, on the other hand, most of the work was done by the project manager, with strong support from the steering group. The interviewees from Kainuu were pleased with the results, but admitted it depended strongly on the successful selection of a project manager. At this point it is, however, difficult to say which one is better: whether strong focus on teamwork will result in any better results, such as in a higher commitment, for example.

Table 5 contains detailed information about the processes.

Table 5. Organisational details of the three regional strategy processes in northern Finland

ORGANISATION OF THE STRATEGY PROCESS			
	N. OSTROBOTHNIA	KAINUU	LAPLAND
Steering Group	10 members, mainly from the funding organisations, Chair: Regional Council In addition to project monitoring, active support of the strategy work	13 members from the key organisations. Chair: Univ. of Oulu (Kajaani University Consortium) Project monitoring, but also a significant role in formulating the strategy	25 members from the regional council, Lapland ELY Centre, sub-regions, research institutes and other groups Chair: Univ. of Lapland
Project manager or consultant	Project Manager (hired for the project), consultants used for sub-projects (background reports and workshop arrangements)	Project manager (hired for the project), consultants used (e.g. compiling background reports)	Consultant, several sub-consultants
Sector or theme groups	12 sector groups, about 50 meetings altogether	7 theme groups, 6 meetings altogether Stakeholders also had the opportunity to edit the draft using online technologies (e.g. Whiteboard, e-mail)	6 theme groups, met altogether 10 times
Other working groups and workshops	Advisory board, 40 members from the key organisations, 3 meetings. Determined the key guidelines of the strategy and advised on sector-group work Sub-regional workshops (3), about 20 persons from the key organisations of the sub-regions attended each workshop One-day workshop for the sector-group chairs	Kick-off seminar (open), open seminar during the consultation process	Two strategy days (workshops), where the main guidelines for the strategy were determined A small "Key Group" with representatives from the Regional Council and the local ELY Centre in addition to the steering group chair and the consultants Sub-regional implementation seminars
Emphasis and workload	Emphasis on the sector-group work, "bottom-up"	Project manager, support from the steering group	Consultants' work supported by participatory group work; strong emphasis on background report work

### 3.2.3

## Participation in the processes

An essential part of all the regional strategy processes was participation open to different regional actors and decision-makers. A key organisation besides the regional council in all the three processes was the local Centre for Economic Development, Transport and the Environment, which channelled the funding and provided special expertise in several themes. Additionally, the local university played a significant role. The participants invited to join the process were listed already during the project-planning phase and represented the region widely: not only public administration, but also municipalities, the business community, different NGOs and environmental education networks took part (see Table 6).

The organisation of the project, with a wide-range of participants, was seen as an advantage, and many of the interviewees stated that including stakeholders who have not usually been involved in different regional strategy processes energised the discussions and also made it more obvious to all participants that climate change is a large-scale issue.

Table 6. Participating organisations and groups in the Northern Ostrobothnia strategy process.

<p>Finavia Corporation, Oulu airport</p> <p>Fortum Generation, Oulujoki Power Plants</p> <p>Geological Survey of Finland (GTK), Western Finland Office</p> <p>Haapajärvi Vocational College (HAI)</p> <p>Haapavesi Siikalatva sub-region</p> <p>HiisiHeimo Tourism Association</p> <p>Humanpolis Rokua</p> <p>Rescue Department of the Jokilaaksot area</p> <p>Kainuu Centre for Economic Development,</p> <p>Transport and the Environment</p> <p>City of Kalajoki</p> <p>Kalajoki Marine Nature Centre, Metsähallitus</p> <p>Central Ostrobothnia University of Applied Sciences (COU)</p> <p>Koillismaa sub-region</p> <p>City of Kuusamo</p> <p>Game Association of Kuusamo (Kuusamon riistanhoitoyhdistys)</p> <p>Local Group of the Friends of the Earth Finland (NGO) (Maahinen ry)</p> <p>Finnish Forest Research Institute (Metla), Northern Unit Muhos</p> <p>Metla/Energy Agency of Northern Ostrobothnia (project)</p> <p>Metsähallitus, Kuusamo</p> <p>Metsähallitus, Oulu</p> <p>Central Union of Agricultural Producers and Forest Owners (MTK), North Ostrobothnia</p> <p>MTT Agrifood Research Finland, Ruukki</p> <p>Navico Oy, consulting firm</p> <p>Nivala-Haapajärvi sub-region</p> <p>Nokia Siemens Networks Oy</p> <p>Oulu University of Applied Sciences (natural resources and the environment)</p> <p>Oulu University of Applied Sciences (technology, communication and transport)</p> <p>Oulu Innovation Ltd</p>	<p>Rescue Department of the Oulu-Koillismaa area</p> <p>Oulun Energia, City of Oulu's energy utility company</p> <p>Oulun Energia/Turveruukki (a major peat producer)</p> <p>Evangelical Lutheran Church of Finland, Oulu Diocese</p> <p>Oulu Waste Management (Oulun jätehuolto)</p> <p>Oulu Chamber of Commerce</p> <p>City of Oulu</p> <p>City of Oulu, Department of Education</p> <p>City of Oulu, Marketing</p> <p>Game Management District of Oulu (Oulun riistanhoitopiiri)</p> <p>Port of Oulu</p> <p>Oulu Region Joint Authority for Education (Oulun seudun koulutuskuntayhtymä)</p> <p>Oulu sub-region</p> <p>Oulun vesi</p> <p>University of Oulu</p> <p>Thule Institute, University of Oulu</p> <p>Department of Architecture, Univ. of Oulu</p> <p>Institute of Health Sciences, Univ. of Oulu</p> <p>Department of Biology, Univ. of Oulu</p> <p>Oulanka Research Station, Univ. of Oulu</p> <p>Faculty of Technology, Univ. of Oulu</p> <p>Student Union of the University of Oulu</p> <p>Oulunkaari sub-region</p> <p>Reindeer Herders' Association</p> <p>Bothnian Bay Fisheries Association (Perämeren kalatalousyhteisöjen liitto)</p> <p>North Ostrobothnia Centre for Economic Development,</p> <p>Transport and the Environment</p> <p>Council of the Oulu Region</p> <p>Ornithological Society of Northern Ostrobothnia (Pohjois-Pohjanmaan lintutieteellinen yhdistys)</p> <p>Finnish Association for Nature Conservation, Northern Ostrobothnia district</p>	<p>Regional Forestry Centre of North Ostrobothnia</p> <p>North Ostrobothnia Hospital District (Pohjois-Pohjanmaan sairaanhoitopiiri)</p> <p>Regional Forest Owners' Union of Northern Finland</p> <p>Northern Ostrobothnian regional organisation of the Federation of Finnish Enterprises (Pohjois-Pohjanmaan Yrittäjät)</p> <p>ProAgria Centre Oulu (an agricultural expert organisation)</p> <p>ProAgria/Oulu Association of the Rural Women's Advisory Organisation (Oulun maa- ja kotitalousnaiset)</p> <p>Fisheries Advisory Centre Oulu/ProAgria (Oulun kalatalouskeskus)</p> <p>PRT-Forest Oy</p> <p>PVO-Vesivoima Oy (local hydro-power producer)</p> <p>Municipality of Pyhäntä</p> <p>City of Raahe</p> <p>Raahe sub-region</p> <p>Rautaruukki Corporation</p> <p>Finnish Game and Fisheries Research Institute (RKTL)</p> <p>Ruka-Kuusamo Tourism Association</p> <p>Central Organisation of Finnish Trade Unions (SAK)/Finnish Metalworkers' Union</p> <p>Scandic Hotels Oulu</p> <p>Municipality of Siikalatva</p> <p>Stora Enso Corporation</p> <p>Finnish Environment Institute (SYKE)</p> <p>Talonrakennusteollisuus ry</p> <p>Tekes, Finnish Funding Agency for Technology and Innovation</p> <p>Finnish Institute of Occupational Health, Oulu Regional Office</p> <p>Municipal Water Services Vihanti (Vihannin Vesi Oy)</p> <p>VR Group (a Finnish transport company)</p> <p>VTT Technical Research Centre of Finland</p> <p>City of Ylivieska</p> <p>Ylivieska sub-region</p>
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Interestingly though, this approach to participation also brought challenges to the strategy processes. For various reasons, participation and interest in the strategy process remained low for several important stakeholder groups: decision-makers, some local municipalities, some members of the business community and indigenous people (in Lapland).

An interesting question brought up in several interviews was the personal characteristics of the participants. The enthusiasm of the chairs and other members taking part in the theme workshops had a strong influence on the work. On the other hand, as some interviewees in Northern Ostrobothnia noted, a thorough process can also serve as a wake-up call to some of the not-so-enthusiastic experts.

#### 3.2.3.1

##### **Participation of the decision-makers**

One of the major challenges faced in all the processes was the lack of political commitment and the question of how to best include decision-makers in the process. In the Northern Ostrobothnian process, it was recognized that politicians' participation in an early phase of the process is important because it opens channels for discussions and strengthens the support at the approval phase and the future implementation phase. However, even though the other strategy processes tried to learn from the case of Northern Ostrobothnia and take the issue under consideration, the results did not seem to be remarkably better. It seems that climate change is often not high up on the regional or local political agenda and without real motivation there is no true commitment. One of the reasons for the lack of motivation that came up in the interviews was that climate change is a continuing phenomenon that extends beyond the terms of office of the decision-makers, and therefore it is difficult to perceive and not particularly motivating for them.

#### 3.2.3.2

##### **Participation of the municipalities**

The participation and commitment of the local municipalities are crucial to the success of the regional climate change work. Municipalities have a significant role in climate change mitigation and adaptation because of their responsibilities in land use and traffic planning and waste management, and in their own energy production, as well as the energy consumption of local services. The main cities were active in the regional strategy processes, but it was challenging to include the rest of the municipalities. The same observation was noted in Västerbotten, Sweden. The interviewees listed several reasons for this: long distances, lack of resources, lack of information. The current situation in the municipalities in Finland related to potential municipal mergers and economic uncertainty was also seen as problematic. As one of the interviewees put it, "The municipalities in Finland are in such an unstable situation at the moment that there are no resources to consider a theme as indeterminate as climate change." Additionally, lack of commitment from the top management was mentioned: the participation and activities of a municipality strongly depended on individual officials' own actions and interest.

### 3.2.3.3

#### **Participation of the business community**

Another important sector to be included in the process was the business community. Large corporations operating in the regions participated in the processes; this participation was seen to be valuable in itself, but it was difficult to involve local small and medium-sized enterprises. These enterprises were represented in the process, for instance, by the local Chambers of Commerce and regional organizations of the Federation of Finnish Enterprises. Several interviewees stated that a lack of motivation was one of the reasons for this: if the value of the meeting was not clear enough to the invitee, it was very unlikely that the invitee would show interest or attend. Several ways to motivate the business community were mentioned: tangible topics, obvious opportunities for making or saving money, and meetings organised close to the companies. Occasionally the lack of contact with the business organisations was solved by the project personnel setting up meetings with the organisations or participating in different forums with the organisations.

### 3.2.3.4

#### **Participation of indigenous peoples**

Local people, as decision-makers in their everyday lives, have an important role in implementing climate change strategies. Thus, the opportunity for public participation during the preparation of the strategy has to be promoted. One special interest group is indigenous people. In the case of northern Finland (Lapland region), these are the Saami. The Saami, whose lifestyle has been dependent on weather conditions for many generations, have first-hand knowledge of the climate and weather, and also of climate change. Because they are important holders of knowledge and users of the land, they should be included in the preparations of a climate change strategy.

The Saami Parliamentary Council (2010) has adopted a climate change strategy that concerns mostly international climate change policies. The strategy states: "The Saami Parliaments must be able to participate equally in the decision-making process regarding climate change at national and international levels. The reason is that this gives the best conditions for adapting to climate change with the Saami culture as a base." Further, "SPC considers that the aim in international politics dealing with indigenous peoples must be to mitigate the effects of climate change on indigenous peoples and create opportunities for indigenous peoples to secure influence in decision-making connected to climate change. Actions carried out to mitigate climate change must not be at the expense of indigenous peoples' well-being and their living possibilities.."

This was taken into consideration in the regional strategy process of Lapland and several attempts were made to include the Saami in the process. The Saami Parliament was asked to nominate a member to the steering group of the project and send a representative to participate in the workshops.

In most cases both on the regional and local level, public participation was not sufficiently included in the strategy process, mainly due to lack of resources (e.g. personnel, time), or was intentionally postponed to the implementation phase. However, the involvement of the local people is essential for achieving the goals and objectives that have been set and spreading the message to the surrounding community. In Finland, the public participation process is often led by government officials and is "working group focused". The working group activities may drive away some of the possible participants. It is important to encourage public participation and find new practices for it.



## Local processes and cooperation

The three examples of a local-level process, one from each of the regions in northern Finland, were different both in synchronisation within the regional process and in the approach (sub-regional in Oulu, municipal in Rovaniemi and co-operative on the regional level in Kajaani). However, there seemed to be similar elements and success factors. For example, setting concrete goals was seen as important. Additionally, recognising that the cities had already started similar work, and incorporating the existing efforts into the strategy or programme supports legitimisation of the strategy inside the city administration. As one of the interviewees put it, “Many normal tasks of the city only need to be re-labelled as ‘climate change work’.” Another success factor is to highlight the economic aspects and ways to save money through, for example, improving energy efficiency.

It was difficult to do a comparison between the different ways of organising the local strategy processes and their relevance at this point, because only one of the strategies has entered the implementation phase. Nevertheless, most of the interviewees stated that synchronisation with the regional process could have created synergy and added value to the local process. Thus, the model of Kainuu, where the regional process was followed by the local one, was seen to be the most practical example.

Whatever the approach on the local level was, the two greatest challenges were the lack of resources and the lack of commitment. More support from the regional administration for the local process was hoped for. The communication of support from the highest regional level is especially important, since the success of the climate change work requires motivation and initiative from the municipal leaders. The interviewees listed a couple of ways how regional councils, for example, could promote work on climate change at the local level:

- by influencing the top management of the municipalities
- by supporting networking between climate change experts in different organisations
- by coordinating activities (given the lack of resources in municipalities, a regional coordinator could be a beneficial asset)
- by using the “traditional” means of regional councils (e.g. regional planning, land use planning)

## Communication and implementation

A significant challenge in every strategy process is how to effectively communicate the strategy to a larger audience. As one interviewee said, “Almost all the regions and cities are active in climate change work, but the best marketing creates an important internal and external image of a ‘climate-friendly region or city’.” Further, successful communication supports the implementation of the strategy, and can also have a positive influence on the general attitude of the public and encourage the citizens to modify their behaviours, because in their daily lives, people make choices that have an impact on the climate. According to one interviewee, “The change is slow, and one project cannot affect a lot, but it has to start somewhere.”

Effective communication was seen as problematic in all three strategy processes; however, positive examples were also brought up, such as the case study on Climate-friendly Families in Kainuu (see Box 2). Information only on the different phases of the strategy work was seen to be uninteresting, but including information on different campaigns, symbolic events and contests increased the interest, added to the knowledge generated and created a supportive atmosphere. Some of the interviewees also regretted that social media channels were not used to reach out to the public. Communications should be innovative, but systematic, and therefore there is a need for a communications plan.

**Box 2. Case study on Climate-friendly Families in the Kainuu Region**

The case study involved three local families whose carbon footprints were calculated and who were provided with advice on how they could reduce their emissions that contribute to climate change, and, thus, reduce their footprint. The themes focused on were energy use, consumption in general, food consumption, waste management and transportation.

The goal was to show how the people living in the region could relatively easily make more climate-friendly choices in their everyday lives. The regional media reported on the families.

Another considerable, if not the most significant, challenge in all the strategy processes is implementation. The strategy processes in northern Finland are all in such an early phase that it is difficult to analyse or compare the success of the implementation phases. Then again, it can be said already that the point of transition from the actual strategy process to implementation seems to be somewhat difficult. For instance, in Northern Ostrobothnia the climate change work has continued in different sectors and the climate change theme has been integrated, for instance, into the regional planning process, but, as a whole, the process has slowed down due to a lack of coordination and resources.

A good approach to implementation might be to integrate climate change issues into existing or other permanent structures. For instance, in the city of Oulu, which is probably the most advanced in northern Finland in implementing its climate change strategy, the main targets of the sub-regional climate change strategy have been summarised in one of the city's five development programmes (Climate Programme ILMO). A somewhat similar approach was taken in the Kainuu region, where regional development is organised through "theme programmes", and a new climate change theme programme is currently under preparation. This programme is intended to promote implementation of the regional climate change strategy, and to aid in co-ordinating projects and communications on climate change. Another example from the regional level is the permanent organisation (Klimatråd) that was established in Västerbotten, Sweden to handle these kinds of issues. In other regions, the implementation of the climate change strategy is carried out on a project basis, although concerns about the sustainability of the activities have been raised.

### Box 3. LESSONS LEARNED – Preparing a regional strategy on climate change

- **Strong back-up and long-term vision are essential**

A successful preparatory process for a regional strategy on climate change needs strong support from both the key organisations involved in the process and the decision-makers in the region. Most of the three strategy processes faced a lack of commitment in some respects. To avoid this, it is necessary to invest more resources in motivation and an open-planning process.

Climate change is a complex, long-term challenge, and, thus, also the regional climate change work should be a continuous process. However, climate change is often inconsistently addressed in a short-term project. To ensure sustainable actions, sufficient resources (especially funding) have to be approved in advance.

- **Large network of experts and an open participatory process support commitment**

Given the widespread economic, social and environmental impacts of climate change, it is essential to note that climate change is not only an environmental issue. Thus, the preparatory process for a regional climate change strategy should take a comprehensive approach and involve a wide-range of regional stakeholders. An open participatory process offers several benefits and sufficient time and other resources should be allocated to it.

It became obvious that involving certain stakeholder groups in the processes was challenging. Special attention should be paid to more effectively involving regional decision-makers, municipalities, the business community, local people and indigenous peoples. Seeking new, more effective ways for public participation is recommended.

- **Adequate information forms a solid basis for the strategy**

Accurate background information provides a sound basis for the strategy work. In the regional strategy processes studied, information on greenhouse gas emissions in the regions, climate statistics and scenarios for the region, and the effects of climate change on humans, ecosystems and livelihoods was utilised. A vulnerability assessment is a useful approach for defining the challenges for the region, as well as the opportunities. Additionally, the value of local knowledge should be noted.

- **Systematic and innovative communications enhances commitment**

Communications is a key element in the success of regional climate change strategies. It conveys information to the various stakeholders, intensifies the strategy process and supports the implementation of the strategy and attainment of the objectives. Through the means of communication it is also possible to influence the general attitude and encourage citizens to modify their behaviours, because in their everyday lives, people make choices that affect the climate.

Challenges faced in the strategy processes indicated that the media and the public show little interest in hearing news about the strategy process itself. However, innovative, more down-to-earth communications on projects with topics linked to everyday life have been successful.

- **Implementation should be well planned and well funded**

In order to successfully put the strategy into action, the implementation phase should be taken into consideration already in the early phases of the strategy process. Important aspects to be considered are the following:

- o coordination and sharing of responsibility
- o resources
- o integration into existing policies and activities
- o follow-up with preset criteria and indicators

- **Cooperation is profitable**

The value of approaches successfully tested elsewhere should be recognised, and it is recommended to exchange experiences and adapt good practices to the region. In addition to project planning and kick-off, cooperation could also offer synergy during the latter phases of the strategy process, for example, during the implementation phase.

Preparation of local climate change strategies and programmes should be synchronised with the regional strategy process. Joint preparation of different strategies and programmes enables careful consideration of the roles of different parties. An efficient regional strategy process supports climate change work also at the local (municipal) level. Through cooperation and coordination it is possible to achieve more with fewer resources.

## Conclusion

Comparing the three regional strategy processes, and particularly their success, was challenging, since all the regions were just getting started on implementing their regional climate change strategy. However, in spite of the differences in the processes, more or less similar success factors and challenges were apparent in all three processes. In summary, at all the levels, open discussions and broad regional cooperation were valued, but guidelines and support were expected from above (i.e. regionally, from the national level; locally, from the regional level).

The importance of preliminary planning cannot be emphasised enough. To conclude, most of the success factors of the strategy process can be safeguarded through careful planning. Through planning, the coordinators of the process can also be better prepared to face the challenges and cope with them effectively. In practice this means that the decisions on the process taken during the initial phase such as the main partners, the source of funding and the scope have a major influence on the process itself, if not even the results. Additionally, it is also suggested to include a wide range of different stakeholders throughout the process, and to listen to their opinions and ideas already during the planning phase.

Box 3 summarises the success factors and challenges faced in these regional strategy processes with the aim of outlining how work on a regional climate change strategy can be carried out elsewhere.

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## APPENDIX

### The Interviewees

Region	Organisation	Interviewee	Title
Northern Ostrobothnia	Council of the Oulu Region	Tuomas Kallio	Acting Manager, Environmental Planning
	Council of the Oulu Region	Ismo Karhu	Project Manager/Manager, Environmental Planning
	Council of the Oulu Region	Auli Suorsa	Regional Planner
	Centre for Economic Development, Transport and the Environment for North Ostrobothnia	Heikki Aronpää	Director, Environment and Natural Resources
	Environment Office of the Oulu Region (sub-region)	Marketta Karhu	Head of Environmental Protection
Kainuu	Joint Authority of the Kainuu Region	Jyrki Haataja	Deputy Director for Regional Development
	Joint Authority of the Kainuu Region	Sanna Kopra	Project Manager
	City of Kajaani	Paula Malinen	Inspector, Environmental Protection
Lapland	Regional Council of Lapland	Marko Varajärvi	Development Director
	University of Lapland	Monica Tennberg	Research Professor, Sustainable Development
	Bionova Consulting	Juho Korteniemi	Director, Public Sector Projects
	City of Rovaniemi	Erkki Lehtoniemi	Head of Environmental Supervision

## DOCUMENTATION PAGE

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<i>Author(s)</i>	Satu Himanen, Jouko Inkeröinen, Kirsi Latola, Tero Väisänen and Erkki Alasaarela			
<i>Title of publication</i>	<b>Analysis of Regional Climate Strategies in the Barents Region</b>			
<i>Publication series and number</i>	Reports of the Ministry of the Environment 23en/2012			
<i>Theme of publication</i>				
<i>Parts of publication/ other project publications</i>				
<i>Abstract</i>	<p>As regards adaptation to climate change and mitigation of its impacts, it is often necessary to examine areas larger than a single municipality alone. National and international targets can be more easily met with the help of regional strategies.</p> <p>The aim of this publication is to assess how national climate targets have been implemented in regional and local strategies and programmes in northern Finland. A specific objective has been to describe the processes of these three areas in the Barents Region and how regional climate strategies have been prepared and implemented. In addition, their processes were compared with some other climate strategies in the Barents region (Västerbotten, Murmansk).</p> <p>In northern Finland, the strategic processes are at such an early stage that it is difficult to assess or compare the success of the implementation phases. Despite differences between the projects, some similarities could be found in all three processes. Open discussion and broad-based cooperation were appreciated at all levels, but steering methods and support were expected at the regional level from the national level and at the local level from the regional level, for example.</p> <p>Careful planning is the best way to ensure the success of a strategic process. Various parties should also be involved in the process as extensively as possible right from the planning phase, and their views should be taken into account. At least seven regions in Finland had prepared a regional climate strategy by the end of 2011. Although some structures and ideas were adopted from one strategic process to another, the processes mainly concentrated on their respective regions and special conditions.</p> <p>A special characteristic of the climate strategy for Lapland is a strong focus on the economy and business and on the impacts of climate change on the region's competitiveness. The strategic process in the Kainuu region focuses in particular on public participation and the commitment of decision-makers to the process. The regional climate strategy for North Ostrobothnia commits to the national targets, whereas in Kainuu the regional targets are slightly stricter than the national targets. Lapland decided to concentrate only on such measures that can be managed within the region. Here, the main focus was placed on adaptation to climate change. In North Ostrobothnia, the strategic process utilised some of the results of the Finnish VACCIA project, which measured the vulnerability of ecosystem services, for example.</p> <p>In most cases, sufficient basic information on regional climate statistics, greenhouse gases and scenarios was available, whereas some regions lacked calculations on the economic impact of climate change. The smaller the unit, the more difficult it was to gather sufficient material. One of the most important problems in all the processes was the lack of political commitment and how best to involve decision-makers in the process. However, it can also be said at this stage that proceeding from the actual strategic process to the implementation phase is the most challenging phase of the work.</p>			
<i>Keywords</i>	climate change, climate strategy, regional, northern Finland, VACCIA, Barents			
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Julkaisun teema			
Julkaisun osat/ muut saman projektin tuottamat julkaisut			
Tiivistelmä	<p>Ilmastonmuutokseen sopeutumisessa ja sen vaikutusten vähentämisessä on usein tarpeellista tarkastella suurempia alueellisia kokonaisuuksia kuin pelkästään yhden kunnan aluetta. Alueellisten strategioiden avulla voidaan paremmin saavuttaa sekä kansalliset ja kansainväliset tavoitteet.</p> <p>Julkaisun tarkoituksena on arvioida kuinka kansalliset ilmastotavoitteet on pantu täytäntöön Pohjois-Suomen alueellisissa ja paikallisissa strategioissa ja ohjelmissa. Erityisenä tavoitteena on ollut kuvailla, näiden kolmen Barents alueeseen kuuluvan alueen prosesseja ja millä tavoin alueellisia ilmastostrategioita on valmisteltu ja toteutettu. Lisäksi prosesseja on vertailtu joihinkin muihin Barentsin alueen ilmastostrategioihin, (Västerbotten, Murmansk).</p> <p>Pohjois-Suomessa strategiaproessit ovat niin alkuvaiheessa, että on vaikeaa analysoida tai vertailla toteutusvaiheiden onnistumista. Prosessien erilaisuudesta huolimatta samankaltaisuutta oli havaittavissa kaikissa kolmessa prosessissa. Avoin keskustelu ja laaja-alainen yhteistyö olivat arvostettuja asioita kaikilla tasoilla, mutta ohjauskeinoja ja tukea odotettiin esim. alueellisella tasolla kansalliselta ja paikallisella tasolla alueelliselta tasolta.</p> <p>Huolellinen suunnittelu turvaa parhaiten strategiaproessin menestymisen. On myös syytä ottaa eri osapuolet mukaan mahdollisimman laajasti jo suunnitteluvaiheessa sekä kuunnella heidän näkemyksiään. Suomessa ainakin seitsemän aluetta on laatinut alueellisen ilmastostrategian v. 2011 loppuun mennessä. Vaikka joitakin rakenteita ja ideoita omaksuttiin strategiaproessista toiseen, ovat prosessit kuitenkin pääosin keskittyneet omaan alueeseensa ja sen erityisolosuhteisiin.</p> <p>Lapin ilmastostrategiassa erityispiirteenä oli voimakas keskittyminen talouteen, elinkeinoihin ja ilmastonmuutoksen merkitykseen kilpailukyvyllä. Kainuun prosessi keskittyy erityisesti julkiseen osallistumiseen ja päätöksentekijöiden sitouttamiseen prosessiin. Pohjois-Pohjanmaan alueellinen ilmastostrategia sitoutuu kansallisiin tavoitteisiin, kun taas Kainuussa alueelliset tavoitteet ovat hieman kansallisia tavoitteita tiukempia. Lapissa tehtiin päätös keskittymisestä vain niihin toimiin, jotka ovat hallittavissa alueen sisällä. Pääpaino Lapissa annettiin ilmastonmuutokseen sopeutumiselle. Pohjois-Pohjanmaan strategiaproessissa hyödynnettiin joitakin tuloksia suomalaisesta, mm. ekosysteemipalvelujen haavoittuvuutta mittaavasta, VACCIA- projektista.</p> <p>Enimmäkseen käytettävissä oli riittävät perustiedot alueellisista ilmastotilastoista, kasvihuonekaasuista ja skenaarioista. Joillakin alueilla puuttui laskelmia ilmastonmuutoksen taloudellisista vaikutuksista. Mitä pienempi yksikkö, sitä vaikeampaa oli riittävän aineiston kokoaminen. Yksi suurimmista ongelmista kaikissa prosesseissa oli poliittisen sitoutumisen puute ja kysymys siitä kuinka päätöksentekijät parhaiten saadaan mukaan prosessiin. Toisaalta voidaan jo tässä vaiheessa sanoa, että siirtyminen varsinaisesta strategiaproessista toteutusvaiheeseen, on työn haastavin vaihe.</p>		
Asiasanat	ilmastonmuutos, ilmastostrategia alueellinen Pohjois-Suomi , VACCIA , Barents		
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## PRESENTATIONSBLAD

Utgivare	Miljöministeriet Enheten för internationella ärenden och EU-frågor	Datum November 2012
Författare	Satu Himanen, Jouko Inkeröinen, Kirsi Latola, Tero Väisänen och Erkki Alasaarela	
Publikationens titel	<b>Analysis of Regional Climate Strategies in the Barents Region</b> (Analys av de regionala klimatstrategierna i Barentsregionen)	
Publikationsserie och nummer	Miljöministeriets rapporter 23en/2012	
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Sammandrag	<p>När det gäller en anpassning till klimatförändringen och lindring av klimatförändringens konsekvenser är det ofta nödvändigt att granska större regionala helheter än en enda kommuns område. Med regionala strategier är det lättare att uppnå såväl de nationella som de internationella målen.</p> <p>Syftet med denna publikation är att utvärdera hur de nationella klimatmålen har verkställts genom regionala och lokala strategier och program i Norra Finland. Ett särskilt mål har varit att beskriva processerna i de tre områden som hör till Barentsregionen och på vilket sätt de regionala klimatstrategierna har utarbetats och förverkligats. Processerna har vidare jämförts med vissa andra klimatstrategier i Barentsregionen (Västerbotten, Murmansk).</p> <p>I Norra Finland är de strategiska processerna så färskas att det är svårt att analysera eller jämföra hur olika skeden har genomförts. Trots att de tre processerna är av olika natur har liknande drag iakttagits i alla processer. Öppen diskussion och brett samarbete uppskattades på alla nivåer, men på regional nivå förväntade man sig t.ex. styrmedel och stöd på nationell nivå, medan man på lokal nivå förväntade sig detta på regional nivå.</p> <p>Omsorgsfull planering säkrar att strategiprocessen genomförs på bästa sätt. Det finns också skäl att i så hög utsträckning som möjligt inkludera olika parter redan i planeringsskedet och lyssna till deras synpunkter. I Finland hade åtminstone sju regioner gjort upp en regional klimatstrategi fram till slutet av år 2011. Även om vissa gemensamma strukturer och idéer tillägnats i de olika strategiprocesserna, har processerna i regel koncentrerat sig på den egna regionen och de förhållanden som är specifika för den.</p> <p>I klimatstrategin för Lappland var ett särdrag att fokus låg på ekonomin, näringsgrenarna och klimatförändringens betydelse för konkurrenskraften. Processen i Kajanaland fokuserar i synnerhet på offentligt deltagande och på att processen ska förankras hos beslutsfattarna. Den regionala klimatstrategin för Norra Österbotten förbinder sig vid de nationella målen, medan de regionala målen i Kajanaland är lite striktare än de nationella målen. I Lappland fattades ett beslut om att bara fokusera på de åtgärder som kan kontrolleras inom regionen. Där lades huvudfokus på anpassningen till klimatförändringen. I strategiprocessen i Norra Österbotten utnyttjades vissa resultat från det finländska VACCIA-projektet, som bl.a. mäter sårbarheten i ekosystemtjänsterna.</p> <p>Det var främst tillräckliga basuppgifter om regional klimatstatistik, växthusgasutsläpp och scenarier som stod till förfogande. På vissa områden saknades kalkyler över klimatförändringens konsekvenser för ekonomin. Ju mindre enhet det var fråga om, desto svårare var det att få ihop ett tillräckligt material. Ett av de största problemen i samtliga processer var bristen på politiskt engagemang och frågan om hur beslutsfattarna på bästa sätt kan engageras i processen. Det står dock redan i det här skedet klart att den mest utmanande fasen kommer att vara övergången från den egentliga strategiprocessen till själva genomförandet.</p>	
Nyckelord	klimatförändringen, regional klimatstrategi för Norra Finland, VACCIA, Barents	
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Climate change is a global phenomenon with especially harsh effects on the Arctic and northern regions. The Arctic's average temperature has risen at almost twice the rate as elsewhere in the past few decades. Since 1966, the Arctic land area covered by snow in early summer has shrunk by almost a fifth.

The Barents Region consists of the northern parts of Norway, Sweden, Finland and Russia (i.e. the European part of Russia). Climate change will cause serious impacts in the Barents Region because of its higher density of population living under harsh climatic conditions, thus setting it apart from other Arctic areas. In many cases, economic activities, like tourism, rely on certain weather conditions. For this reason, climate change and adaptation to it is of special urgency for the region.

Regional climate change strategies are important tools for addressing mitigation and adaptation to climate change as they can be used to consolidate the efforts of different stakeholders of the public and private sectors. Regional strategies can be important factors in achieving the national and international goals.

The study evaluated how the national climate change goals were implemented in the regional and local strategies and programmes in northern Finland. The specific goal was to describe the processes by which the regional strategies were prepared and implemented, and how the work was expanded to include the whole of northern Finland. Finally, the Finnish preparatory processes were compared to case examples of processes for preparing climate change strategies elsewhere in the Barents Region. This analysis provides examples of good practices in preparing a climate change strategy and implementing it.



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