



Project Newsletter

Issue No. 3 - January 2009



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Clim-ATIC

Adapting to The Impacts, by Communities in Northern Peripheral Regions

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Creative adaptation ideas collected in Destination Åre

The Clim-ATIC demonstration project; **Adaptation within Destination ÅRE to changing travel patterns caused by Climate Change**, was officially launched at a meeting for entrepreneurs in Åre, Sweden in early December. 280 entrepreneurs attended the meeting which had a focus on sustainable development.

The Manager of business and industry in the municipality of Åre, Jan Andersson, introduced the Clim-ATIC project and spoke about the future effects that climate change will have on

Åre and the need to adapt to these changes in order to survive as a destination. He also encouraged the participants to write down in what ways they could adapt to climate change as individuals, as entrepreneurs and as a tourist destination. Several hundred suggestions were handed in by over 100 persons! The suggestions will be used in the sustainable development plan that will be developed for destination ÅRE in 2009.

Benckt Aspman and Magnus Dahlin, in charge of the demonstration project in Åre, were happy with the outcome of the meeting,

"The huge response from the entrepreneurs and their creative adaptation ideas indicate that the Clim-ATIC project, with a focus on changing travel patterns, has every possibility of becoming an important part of the development of destination ÅRE."

The first step in the project is to develop new internal carrier routes, and through marketing activities in cooperation with the companies, increase the number of travellers for the 2009/2010 winter season.

More information can be found on: www.clim-atic.org/WP4_destination_Are.html

What is Clim-ATIC?

Clim-ATIC is a three-year, €2.4 million, international project that has been awarded project funding of 60% by the European Regional Development Fund within the Northern Periphery Programme. It began in March 2008 and will run until February 2011.

The project will explore the potential for different community groups and sectors to develop adaptive capacity to climate change impacts,



meeting of tourism entrepreneurs in Åre, Sweden, December 2008

The overall objective of the Clim-ATIC project is to establish a sustainable advice and training service for community climate change adaptation across the whole of the Northern Periphery.

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Featured adaptation theme – Atlantic salmon fishing

Flow rate and temperature are amongst the most crucial factors structuring the aquatic environment of running water and the most likely to be affected by climate change. These changes have an impact upon fish populations because of their ecological demands: oxygen requirements and tolerance of variations in temperature. The climate changes already observed to date could be the cause of some of the recent changes seen in Atlantic salmon, such as a shorter life expectancy, the more rapid renewal of populations, and an increase in the number of early maturing males; in some cases leading to a reproduction strategy which excludes the marine phase. The Atlantic salmon is a migratory fish which breeds

in fresh water and develops in the sea. The female buries her eggs in river gravel. After one or two years of life in fresh water, the young arising from these eggs, or 'parr', migrate towards the sea ("smolt" stage). The marine



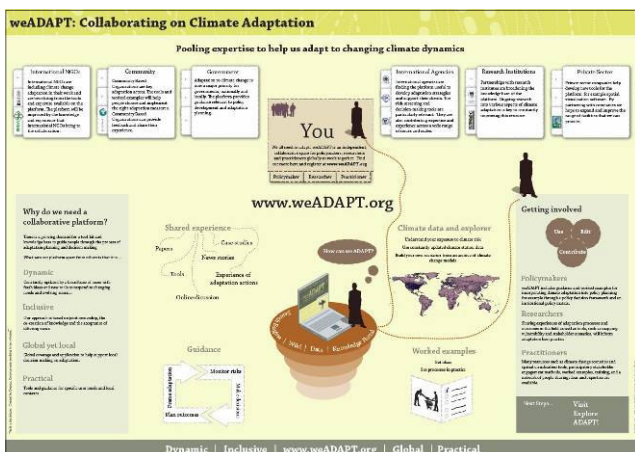
phase lasts for 1 to 3 years before the fish return to their original river to reproduce. The Atlantic salmon is a stenothermal cold water fish (which does not like temperature variations), and is highly sensitive to water quality. Salmon fishermen and

fishery owners this year have a common concern that, whilst there seem to be reasonable numbers of returning fish, some, particularly grilse (1 sea-winter salmon), are very small. Small size suggests that these fish are not finding the nourishment they need when at sea. The fish's genetic instinct appears to guide its migration to certain areas of the North Atlantic to feed on krill, shrimps and prawns which should enable its rapid growth and development. These creatures thrive in certain cold water conditions. Climate change may already be causing a rise in sea temperature in the areas to which the young salmon migrate. They may now not be finding the krill and shrimp in their traditional migration areas.

How can fishermen and fishery owners adapt?

Fishing is an important employer and revenue generator in rural communities. The Scottish Government estimate that, in Scotland, its economic value is £90m and it sustains approximately 2000 jobs. Many fishermen are being encouraged to adopt a wider catch and release policy. Salmon spawning rivers such as the River Enrick in Glen Urquhart, the site of Clim-ATIC's river restoration demonstration project in Scotland, are being looked at on an integrated catchment scale to help reduce the impacts of climate change on salmon; flash flooding, gravel bed disturbance and debris blockages.

Featured websites



weADAPT: Collaborating on Climate Adaptation
Pooling expertise to help us adapt to changing climate dynamics

You are at the center of a network including: International NGOs, Government, Business, Research institutions, and the Private Sector.

Why do we need a collaborative platform?
Dynamic, Inclusive, Global not local, Practical.

Shared experience: Cases studies, Tools, Database of adaptation actions, Publications.

Climate data and expertise: Data and expertise from the international adaptation data bank.

Getting involved: Policy-makers, Practitioners.

Worked examples: Case studies from various regions.

weADAPT.org

Dynamic | Inclusive | www.weADAPT.org | Global | Practical

<http://www.weadapt.org/>
weADAPT is a collaboration between leading organisations on climate adaptation and includes new and innovative tools and methods, datasets, experience and guidance.

Wake Up, Freak Out - then Get a Grip

A short animated film about the feedback loops that may lead to catastrophic climate change, by Leo Murray www.vimeo.com/1709110



Climate futures - responses to climate change in 2030 - Forum for the Future October 2008

http://www.forumforthefuture.org/files/Climate%20Futures_WEB.pdf



Project CECILIA (Central and Eastern Europe Climate Change Impact and Vulnerability Assessment)

<http://www.cecilia-eu.org/index.htm>
Regional climate modelling studies at a resolution of 10 km for local impact studies. The project contains studies of water management, air quality, agriculture and forestry.



Adapting to The Impacts, by Communities in Northern Peripheral Regions

Featured community— The Cairngorms National Park

The Cairngorms was made a National Park in September 2003 because it is a unique and special place that needs to be cared for - both for the wildlife and countryside it contains and for the people that live in it, manage it and visit it. It is Britain's largest National Park.

The Cairngorms National Park has the largest area of arctic mountain landscape in the UK at its heart, with diverse communities around it. It is home to 16,000 people and 25% of Britain's threatened bird, animal, and plant species. It includes moorlands, forests, rivers, lochs and glens.

Scottish National Parks

differ from many other national parks around the world in that they have a social and economic development aim alongside the aims of conservation, understanding and enjoyment of the countryside. This is an explicit recognition of those who live and work in the park.

It is thought that at least 1.2 million people visited the Cairngorms National Park in 2007. Tourism-related businesses account for about 80% of the economy, including activities such as ski-ing, walking, fishing, shooting and stalking.

The Cairngorms National Park Authority is a significant supporter of, and participant in, the Clim-ATIC project in Scotland. It is the host to three exciting climate change adaptation demonstration projects:

1. Demonstrating shared community use of an electric vehicle (EV). This vehicle is a custom built electric car that will be used by the Badenoch and Strathspey Community Transport Company. It is currently being assembled by Dragon Electric Vehicles in Wales, and will begin operation in Spring 2009. The EV will be maintained by motor mechanic students at UHI-Inverness College.

2. Awareness raising, training and promotion for the local wood fuel industry. This project will particularly attempt to target heating engineers, and builders in the area and make them aware of the technologies and local sustainable fuel sources available to them.

3. Stay & Play' - selling alternative activities to the winter sports market using bluetooth technology and a coordinated approach by tourism operators.

Other Clim-ATIC activities in the Park will involve engaging schools to explore the impacts on, and vulnerabilities of, communities and sectors in the National Park and to develop ideas and opportunities for adaptation.

This will involve the participation of 7 pairs of primary and secondary schools, each with a chosen theme or sector as a focus. Schools will use 'movie maker' equipment to make a short film about how climate change will impact on the National Park, what opportunities may arise, and what adaptations could take place.

'Experts' from businesses and organisations involved in each of the 7 topics will be invited into the schools to discuss climate change and its impacts. They also hope to explore links with other schools in Greenland, Norway, Finland and Sweden.



Adapting to The Impacts, by Communities in Northern Peripheral Regions

Who is involved in Clim-ATIC? - ARTEK

ARCTIC TECHNOLOGY CENTRE



Arctic Technology Centre, Artek, was formally established in late summer 2000 to teach and provide in-service training for Greenlandic and Danish students and businessmen in Arctic technology.

Artek also runs courses and seminars about Arctic conditions and contributes to research into Arctic technology.

In 2009, ARTEK is introducing the International Semester in Greenland. The International Semester will take place during the winter and spring of 2009. It will cover the following topics.

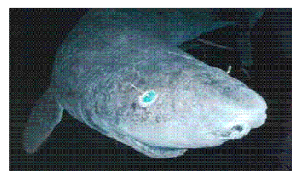
- Constructing light and passively
- Biogenic waste, exploitation and disposal
- Renewable and accessible energy.

This year ARTEK are hosting the 6th International Conference Cold Climate - Heating, ventilation and air conditioning, 2009, in Sisimiut, Greenland, on the 16-19 March. To find out more about the conference, please visit this link:

www.coldclimate2009.dk

The Arctic Technology Centre is the regional lead partner for Greenland in the Clim-ATIC project. They are developing some exciting adaptation demonstration projects including:

1) A biogas plant based on the Greenland Shark waste and black wastewater.



2) Upgrading of existing, and the design of new, light-weight huts for tourists

and hunters with sustainable energy, water



supply and waste water treatment. Two PhD projects are currently focusing on solar heat and indoor climate/insulation of huts.

3) Dog sledging experiments to try and prolong safe ice crossing conditions.



4) Developing a new climate change education exhibition for locals and tourists.

In addition, ARTEK is coordinating project community engagement activities in Greenland. Many focus group meetings and interviews have been held with local stakeholders in Ilulissat, Sisimiut and Uummannaq, including sledging associations, fishing associations, tourist operators and hunters, to discuss the impacts of climate change.

Meetings have also taken place with contractors and local people in Sisimiut, and in two other settlements, on the possibilities and challenges in connection with wider use of solar heating, wind energy, heat pumps, waste water treatment, drinking water, and the insulation of old houses.

For more information about ARTEK, or their Clim-ATIC activities, contact Arne Villumsen on av@byg.dtu.dk

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Future project-related activities and other events

18 - 23 January 2009 a focus on new opportunities and challenges in the Arctic, Tromsø, Norway www.arctic-frontiers.com

13th March 2009 Forest Research and climate change, Midlothian, Scotland www.forestresearch.gov.uk/fr/INFD-7K3HJJ

23 - 28 March 2009 Arctic Science Summit Week - ASSW 2009 , Bergen, Norway www.imr.no/assw2009

28 March 2009 Earth Hour 2009, a global climate event for which 74 cities in 62 countries have committed to switch off their lights at 8:30 p.m.

20/21 May 2009 All-Energy '09 - the renewable energy show, Aberdeen, Scotland www.all-energy.co.uk