Recommendations from the Working group on Environment, based on the conference Climate Change in the Barents Region, 1-3 September 2009, Vadsø, Norway.

The conference Climate change in the Barents Region took place 1-3 September 2009 in Vadsø, Norway. It was organised by the Ministry of Environment of Norway, currently chairing the Barents Council's Working Group on Environment, and CICERO, Centre for International Climate and Environmental Research in Oslo, and was financially supported by the Nordic council of Ministers, as well as the Ministries of Environment in Finland, Norway and Sweden.

The conference was organised to follow up the declaration, adopted by the 8th Conference of Environment Ministers of the Barents Euro-Arctic Council, 9 November 2007 in Moscow, and the document *Arctic climate change: Policy measures relevant for the Barents Region*, adopted by Committee of Senior Officials of the Barents Euro-Arctic Council in 2005. The main aim was to identify relevant areas of cooperation on climate change in the Barents Region in light of updated knowledge.

Approximately 60 representatives from research institutions, central and regional management, and non-governmental organisations in Finland, Norway, the Russian Federation, and Sweden participated in the conference.

The conference acknowledged climate change and policy making/management to be two key driving forces in shaping the development and future living conditions in the Barents Region.

Building upon the document *Arctic climate change - Policy measures relevant for the Barents Region*, the presentations and panel discussions, the conference arrived at a set of recommendations which were approved by the Working Group on Environment.

The Working group on Environment hereby recommends the following measures of cooperation on climate change in the Barents region:

Recommendations regarding the document Arctic climate change - Policy measures for the Barents Region

In view of the rapid climate change already taking place in the Barents Region, to review the document *Arctic climate change: Policy measures relevant for the Barents Region*;

Use the policy measures with its four main headings Mitigation, Adaptation, Research, observation, monitoring and modelling, and Outreach as a baseline document/reference catalogue of pertinent areas of cooperation on climate change in the Barents Region;

Set priorities for implementation of the policy measures and integrate them into the work of all working groups under the Barents Council.

Recommendations on Mitigation

In support of the call for early action on methane and other short-lived climate forcers (black carbon, methane and tropospheric ozone) of the Arctic Council Tromsø Declaration: Identify and implement immediate actions that can be taken within the Barents Region;

Call for expedient implementation of energy efficiency measures, incl. accelerated development of alternative sources of energy and cleaner production strategies, also related AMAP/NEFCO hot spot list;

Urgent action to prevent future degradation of and improve management practices for peat lands, wetlands and forests with significance as sinks for greenhouse gases, as well as habitats for biota.

Recommendations on Adaptation

Strengthened cooperation to identify climate-related health challenges, such as climate driven infections, the importance of clean water and socio-economic factors;

Strengthened cooperation on water management, i. a. related to flood risk and clean drinking water:

Enhanced info-sharing on best adaptation practices; pursue community level actions;

More active involvement of indigenous peoples, systematic use of traditional knowledge, as well as capacity building in order to strengthen ability to adapt to changes in climate and land use;

Intensified sharing of knowledge and know-how on best practices in the field of infrastructure construction and maintenance under changing cryospheric conditions, especially related to degradation of permafrost;

Expanded use of risk assessment;

Give special attention to coastal zones.

Recommendations on Research, observation, monitoring and modelling

Intensified cooperation to develop climate change models and impact models for the Barents Region with adequate spatial resolution, with a view to creating a common baseline for actions:

Extended monitoring and research on permafrost degradation and its impact, in order to understand its broader implications;

Research on the relationship between climate change and changes in land use, especially related to the traditional livelihood of indigenous peoples;

Monitoring and research on Atlantic salmon as an indicator species for the Barents Region with special attention to the traditional knowledge and indigenous peoples.

Recommendations on Outreach

Systematic efforts to collect knowledge and distribute up-dated information about climate change and recommended measures in a popular form to the public;

Systematic exchange and dissemination of information on climate change to decision makers at the regional and local level;

Strengthen regional expertise to give input to regional decision makers on climate change mitigation and adaptation;

Study lessons to be drawn from projects such as the UNDP/RREC case study of Murmansk County, the CAVIAR and EALAT projects and others;

Perform a comparative study of climate change strategies of countries of the Barents Region with a view to draw relevant lessons for regional climate change strategies;

Make systematic use of the International Barents Secretariat in the production and distribution of information material on climate change for the benefit of the general public and the working groups under the Barents Euro-Arctic Council.