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## **Barents Euro-Arctic Council (BEAC) Working Group on Environment**

Finnish Chairmanship 2011-2013

Work programme for Subgroup on Water Issues



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## **1. INTRODUCTION**

The Water Issues Subgroup of the Barents Euro-Arctic Council's (BEAC) Working Group on Environment (WGE) implements and coordinates co-operation on water management. The Work programme guides the Water Issues Subgroup's efforts in strengthening capacity in water management and facilitating investments during the Finnish chairmanship of the Working Group on Environment during 2011-2013.

In Bodö, 1994, the Environmental Task Force was established to advise BEAC on objectives, priorities and actions for environmental co-operation in the Barents Region. In 1999 the Environmental Task Force was reorganized as the Working Group on Environment (WGE). During the past 20 years a lot of different projects have been carried out to improve the environment in the Barents Region.

The WGE work is closely linked to the work done by the Regional Working Group on Environment (RWGE). The WGE and the RWGE group may also in joint cooperation initiate environmental projects within the Barents Region.

## **2. BACKGROUND**

### **Water issues in the Barents region**

Where the state of natural waters is concerned, the most important environmental issues are acidification, heavy metals and POPs (Persistent Organic Pollutants) in the Russian Barents region. All these threats are connected with industrial emissions. Because of insufficient purification of municipal wastewaters, eutrophication and hygienic pollution also cause severe problems.

In the Nordic part of the Barents region, purification of wastewaters and industrial emissions is quite effective and environmental problems are usually very local. In practice non-point loading is the most challenging problem in the area. The state of the waters is considered to be mostly good or excellent, although in some small areas it can be worse. The drinking water systems are also in a good state and safe.

Inhabitants in many parts of the Russian Barents are exposed to hazardous pollutants in drinking water. In the Russian Barents region, drinking water is usually taken from the surface water and purification is often limited to chlorination. Many surface water supplies are clearly influenced by air- and water-borne pollution. Another important question is the re-placement of drinking water piping systems. Improved drinking water quality would quickly improve the health of most of the region's population.

At the moment, the mining industry in the Barents Region is developing. Growing demand has increased the production rates at many sites and new technologies enable short-term operations and the extraction of relatively small deposits. Many companies pay more attention to environmental issues by introducing environmental management systems, or even making investments to reduce discharges into water. Meanwhile, other mines are closed down, leaving open wounds in the bedrock where natural processes cause migration of hazardous substances, threatening sensitive eco-systems. The closure of old or unprofitable mines is a growing problem in the Barents region and deserves attention from both the legislative and technological point of view.

Because of the evident ongoing climate change, the risk of severe flooding is increasing in the whole Barents area. River valleys are traditional places for settlements in all northern areas, whereby the risk of flood damage, especially in the future, is more and more obvious. The benchmarking and harmonization of hydrological monitoring and flood forecasting methods could be very fruitful. The exchange of information about flood control, adaptive actions and prevention practices will also be important.

Transboundary water bodies and water management issues in the area are also important questions. The Barents region consists of 13 different regions. Some of the world's most important salmon rivers are shared water bodies between the co-partners in the region.

### **3. MANDATE AND DECLARATION**

The mandate for the Subgroup on Water Issues was given in the Declaration of the Ministers of the Environment on 9<sup>th</sup> of November 2007.

The main missions for the subgroup work are as follows:

- Sustainable management of water resources and water use
- Transboundary water bodies
- Improvement of drinking water quality
- Study of the correlation between climate change and the condition of water bodies and wetlands
- Other projects on mitigation and adaptation to climate change
- Projects on prevention and reduction of pollution in water bodies and marine environments originating from land based sources.

Environment Ministers and senior representatives of Finland, Norway, the Russian Federation, Sweden and the European Commission met in Umeå, Sweden, on 9 November 2011 for the Tenth Meeting of the Ministers of the Environment of the Barents Euro-Arctic Council (BEAC). The declaration of the meeting states the following on the water issues:

The Environment ministers

- *stressed* the importance of continued co-operation on transboundary waters and river basin systems for harmonising monitoring methods and preventing pollution according to international standards, like EU's Water Framework Directive,
- *noted* activities carried out by the working group in the field of Water Issues and *emphasised* the need for improving the quality of drinking water in the Barents Region, and also recognised the relation between clean water, health and socio-economic factors and highlighted small scale drinking water projects based on shared information and knowledge,
- *underlined* the need for further studies on the correlation between climate change and the condition of water bodies with respect to mitigation and adaptation to climate change, including issues such as flood prevention, water regulation, drinking water and sewage treatment facilities and infrastructure,
- *noted* the importance of the follow up work and project implementation with the joint trilateral monitoring and management of the Pasvik(Paz) river basin area linked to the climate change adaptation and water regulation,
- *encouraged* the subgroup on water issues to further stimulate the exchange of experiences between regions in the Barents region, also between regions in the Russian Federation, especially as to facilitate investments and capacity building contributing to the hot spot exclusion,
- *welcomed* the Conference on Water Management Resources held in Arkhangelsk 2010 and the Conference on climate change and water management – meeting the challenges in the Barents region in 2011 in Arkhangelsk. *Encouraged* continuation of the plans on a comprehensive water project in Archangelsk as well as further co-operation and development of projects to improve the water quality in the Barents Region,
- *welcomed* the ongoing work to implement the United Nations Economic Commission for Europe/World Health Organisation (UNECE/WHO) Protocol on Water and Health in the Barents region of the Russian Federation,
- *welcomed* the regional projects on migration of Atlantic Salmon in the Barents region, aiming at merging modern science with traditional knowledge in order to improve the future management of Atlantic salmon in the Barents region.

#### **4. GOAL AND INTERNATIONAL FRAMEWORK**

The overall goal under the Finnish presidency is to strengthen multilateral co-operation in the Barents region and coordination in water management issues on transboundary water areas. This will be done by project implementation and information change on several water related topics.

Special priority will be given for water management activities in international and national river basins and interactions between water resources and climate change. Especially activities with the EU water frame directive will be emphasized on international river basin areas together with border river commission work. The SWI continue the work to seek possibilities to develop a multilateral project on Water Management Initiatives in Arkhangelsk and other Barents regions.

The Subgroup on Water Issues aims at contributing to fulfill the obligations of national strategies and international agreements on water related issues. The recommendations from the Conference on Climate Change in the Barents Region, the UNECE protocol on Water, Health and the European Union's Water Framework Directive and Russian water strategy are important for the work in the subgroup.

#### **5. WORK PROGRAMME**

Concrete projects on focused environmental issues will be implemented according to the ministerial declaration adopted in Umeå November 2011. Projects may be bilateral or multilateral. Project financing is very important part of the implementation process and a wide scale of financing instruments will be used for the project implementation. Main activities with the water issues under the Finnish presidency can be divided in two main lines; water management activities in international and national river basin areas and water resources and climate change issues.

#### **Water management activities in international and national river basin areas**

The following projects and initiatives have been chosen as the priority projects during the Finnish chairmanship. The projects involve participation of all Barents countries:

- **Forestry impact and water management in Torne International River Basin (financed by Interreg IV A Nord (720 000 €), 2011-2013; Norrbotten and Lapland)**

##### Goals

Impact of forestry on surface waters and restoration activities needed in the area will be studied in river Tornio river basin area in the project.

##### Activities

The need of restoration activities of the rivers and the necessary ecological inventory will be made according the EU water framework directive. Also an evaluation of the effectiveness and implementation level of water protection activities will be studied. One of the project results will be detailed water protection and restoration plans for the pilot areas in the river basin area.

- **EU water framework directive information project in Kola Peninsula (financed by Ministry of the environment Finland (30 000€), 2011-2012; Lapland, Finnmark and Murmansk)**

#### Goals

Main focus will be in the EU water framework directive with consideration of Russian water strategy and comparison of the water management activities in FI-RU-NO border area. The EU water framework directive obligates member states to co-operate with nations that do not belong to the EU and ETA in water management issues, if the waterway in question reaches out to these areas.

#### Activities

Information will be shared with the environmental monitoring authorities of the Murmansk region on EU water framework directive. Seminars and expert meetings will be used as a tool for project goals.

- **Transboundary river basin commission/councils work (Torne, Tana-Paz, Dvina-Pechorski and Barentsevo-Belomorski)(Lapland, Finnmark, Norrbotten, Murmansk, Arkangel, Nenets, Karelia and Komi)**

#### Goals

There are a lot of activities and environmental concerns in the transboundary river basins. Management activities and common understanding on EU water framework directive and Russian water strategy will be needed in the future to solve varied environment questions in these river basins. Existing transboundary river basin commissions and councils, based on international and bilateral agreements, have a long history and comprehensive knowledge on the water issues in the area. Best practices should be delivered across the Barents area.

#### Activities

Presentations and information exchange on border river commission/council work.

- **Water Management Initiative in Archangelsk and other Barents regions (Norrbotten, Arkangel and North Ostrobothnia)**

#### Goals

The Archangelsk region suggested to the Norwegian chairmanship in 2009 a Water Management Initiative to address the water quality situation in the Barents Euro Arctic Region. The Swedish chairmanship aimed to develop the proposed project and stimulate cooperation between the Barents countries in order to improve the water quality in both Arkhangelsk and the North-West Russia.

#### Activities

Planning for seminars in the regions where water experts in the Barents region can exchange experiences on an identified topics relating to surface waters and sustainable urban water systems.

## Water resources and climate change issues

- **Trilateral cooperation on Environmental Challenges in the Joint Border Area (Financed by Kolarctic ENPI (1,5 M€), 2012-2014; Lapland, Finnmark and Murmansk)**

### Goals

Project is studying mitigation of the harmful effects of climate change, water level, flow regulation and contamination in the Finnish, Norwegian and Russian border region. Knowledge and information will be produced on environmental impacts and strategies on adaptation to the climate change and other anthropogenic effects on a regional level.

### Activities

During the project national and international classifications of ecological state and natural habitat types will be compared to evaluate the effects of climate change and water level regulation on the ecological condition of Lake Inari and the River Pasvik. Also the effects of climate change and water level regulation will be evaluated on the fish populations in the River Pasvik. Environmental authorities on the border area will be informed on the project activities.

- **Trilateral cooperation on our common resource the Atlantic salmon in the Barents region (Financed by Kolarctic ENPI (3,2 M€), 2011-2013; Finnmark, Lapland, Murmansk and Arkangel)**

### Goals

Project goals are to develop and enhance the management of the shared Atlantic salmon resource in the Barents region and enabling a future adaptive sustainable and knowledge-based harvesting regime, conservation of the rich fishing traditions and coastal culture and indigenous traditions.

### Activities

With in the project information on salmon wintering behaviour in coastal waters will be collected. Information from salmon catches and scales will be gathered and scales are made to DNA analysis. Gen map for salmon populations in the study area will be created during the project. Also effect of climate change on salmon migration patterns and behaviour will be studied.

- **Ground water supply in Sortavala district (Financed by Karelia ENPI (250 000 €), 2011-2013; Lapland and Karelia)**

### Goals

The goal of the project is to develop design estimates for the construction of ground water intakes, treatment and pipelines for two pilot areas of Kaalamo and Ruskeala of Sortavala district with the use of Finnish experience of ground water supply.

### Activities

Fields with the deposits of pure ground water were found in Kaalamo and Ruskeala villages to develop design estimates for the construction of ground water intakes. Treatment facilities and pipelines for two pilot areas in Kaalamo and Ruskeala will be planned. Development of the design estimates will be based on the hydrological and geological survey made in cooperation with Lapland Regional Environment Centre 2009.

## **6. MEMBERS AND OBSERVERS**

The following persons are appointed members of the Water Issues Subgroup.

- Jari Pasanen, Chair, Centre for Economic Development, Transport and the Environment for Lapland
- Mattias Lindgren, County Administrative Board of Norrbotten
- Bente Christiansen, Office of the County Governor of Finnmark
- Anna Osinina, Director of the Dvina-Pechora River Basin Management

Regular observers are:

- Roar Høgsæt, County Governor in Nordland,
- Asbjørg Fyhn, Troms fylkeskommune,
- Tero Väisänen, North Ostrobothnia Regional Environment Centre
- Tatiana Tiupenko, Ministry of Natural Resources and Environmental Protection of the Komi Republic,

Other relevant organisations and institutions may participate as observers in the subgroup.