

Background document for ministers of environment

Temporary Subgroup on "Hot Spots" Exclusion, SHE

1. Background

The temporary Subgroup on Hotspots Exclusion (SHE) under the Barents Euro-Arctic Council Working Group on Environment (BEAC WGE) was established at the ministerial meeting in Tromsø on 17th of February, 2010, in order to facilitate the exclusion of the 42 "Hot Spots" from the Barents Euro Arctic Environmental "Hot Spots" List.

SHE was given the mandate, in the period towards the next ministerial meeting, to facilitate the process of exclusion of the Barents Environmental "Hot Spots" in accordance with the Criteria & Procedures as described in the Final Report to the Ministers of Environment, adopted in Tromsø. The Ministers acknowledged the need to prioritize and initially focus on certain "Hot Spots" in order to ensure tangible results.

2. Achievements

During the Swedish chairmanship period lasting from February 2010 till November 2011, the BEAC WGE Subgroup for Hotspots Exclusion, SHE, together with the Ministry of Nature Resources and Ecology of the Russian Federation, Minpriroda RF, have

- appointed regional Hotspot Exclusion Groups, HEGs, in all of the five Federation Subjects included in the Barents co-operation,
- elaborated and agreed Mandates for the HEGs which in turn have appointed their members in accordance with these Mandates and started their work, incl. a
- primary review of the respective sets of primarily selected hotspots for exclusion in accordance with the Exclusion Procedure adopted in Tromsø in February 2010.
- Based on the priorities expressed by the regional HEGs, Minpriroda RF with support from SHE has drafted a first "General Exclusion Plan", guiding the further work of SHE and the HEGs.

Thus SHE and Minpriroda have basically carried out Step 1 for all of the 42 hotspots and now have instructed the regional HEGs (in the Republic of Karelia, the Komi Republic, the Arkhangelsk Oblast, the Murmansk Oblast and in the Nenets Autonomous Okrug) to start the work on Step 2 (Screening & Analysis) for the hotspots primarily selected for exclusion in November 2011 in accordance with an agreed Report Template.

Furthermore, the Hot Spot Information System was launched on the server of the International Barents Secretariat, www.barents.st through which the general public will be able to get information on the current status of the environmental hot spots as well as relevant actions planned or foretaken.

3. Hotspots that SHE recommends BEAC WGE to Exclude in 2011

Based on the Applications for Exclusion and attached Screening & Analysis reports submitted by the regional HEGs to SHE and accounting the comments collected from the Technical Expert Committee, the Subgroup for Hotspots Exclusion proposes BEAC WGE to recommend the Ministers to exclude the following hotspots from the Barents Environmental Hot Spot List:

- K10 – Stocks of Obsolete Pesticides (Karelia)
- A10 – Stocks of Obsolete Pesticides (Arkhangelsk)
- M8 – Mercury containing wastes (Murmansk)

Given that all expert assessments are positive (to be determined on November 7), the revised Barents Environmental Hot Spots List from 2011 thus will contain only 39 hotspots instead of the original 42. Proposals from the HEGs to change the names of some of the hotspots to more appropriate names will not be approved. Instead it is proposed to up-date the hotspot list further during next Ministerial Meeting by a more thorough report, based on the work done by SHE and the HEGs in terms of completion of the Step 2 “Screening and Analysis” for all hotspots.

4. Recommendations from BEAC WGE to the Ministers

The BEAC WGE deems the work and achievements made in the Subgroup for Hotspots Exclusion (SHE) satisfactory and recommend the Ministers:

- 1) To approve the Subgroup for hotspots exclusion as a permanent subgroup under the WGE,
- 2) To approve the refined Hot Spots Exclusion Procedure,
- 3) To recognise that sufficient administrative resources are required to promote the further hot spots exclusion, in particular in the Russian environmental authorities on regional level and provide the necessary administrative attention for this,
- 4) To approve the Revised Barents Environmental Hotspots List, based on the exclusion of the hotspots “Stocks of obsolete pesticides (Arkhangelsk, A10), Stocks of obsolete pesticides (Karelia, K10) and Mercury containing waste (Murmansk, M8).
- 5) To endorse that a revised and up-dated Barents environmental hot spot report should be prepared till next Ministerial meeting and describe the environmental status of the 42 hot spots, as well as the efforts made and results achieved in respect to the Exclusion Procedure,.
- 6) WGE also underlined the need for continued supportive activities regarding e.g. environmental assessment, action planning and finance as well as continued implementation of the Hotspots Information System.

Appendix 1 - Assessment according to Set Objectives for SHE's work

SHE formulated an *Overall Objective* and six *Short Term Objectives*, for its work, based on which seven groups of Activities were formulated:

SHE Overall Objective is that the Exclusion procedure with all its staff and stakeholders is effectively operative in all five federation subjects and that relevant actions or projects have been or are likely to be launched for all the 42 "Hot Spots" by 2013.

SHE Short Term Objectives	Assessment of Achievement
Objective 1 – A well functioning and operative procedure of exclusion	The procedure has started and works so far. Step 1 is done for all 42 hotspots and Step 2, Step 7 and Step 8 are have been put into operation for part of the hot spots. Objective 1 is well under way to be achieved (40%)
Objective 2 - Regional "Hot Spots" groups operating in all five Federation Subjects	Regional HEGs are appointed, are working according to Mandates and are now implementing the Procedure for primarily selected hotspots. Based on their priorities, a "General Exclusion Plan" has been formulated for continuous planning and follow-up of implementation. Objective 2 is well under way to be achieved (40%)
Objective 3 - Raised awareness about the Barents Environmental "Hot Spots".	Awareness on the nature and political context of the hot spots as well as of the Exclusion Procedure has been raised at regional authorities and part of the enterprises involved. No or little awareness raising has been done to broader segments of the local populations or to the Barents community in general. Objective 3 is getting started to be achieved (20%)
Objective 4 – Productive co-operation with CPESC, BHSF, ACAP, AMAP, PSI, NPA Arctic, etc.	Discussions with CPESC and BHSF initiated but no concrete actions or results so far. In follow of further implementation of the Exclusion Procedure and, in particular, in follow of further work with more difficult hotspots, the possibilities for Productive Co-operation is supposed to be clarified. Objective 4 is only poorly starting to be achieved (10%)
Objective 5 – A well functioning information system about the hotspots.	The structure of the Information system is in place and initial information has been posted (basic documents for the SHE and HEG work as well as basic information on the primarily selected hotspots for exclusion). Objective 5 is under way to be achieved (30%)
Objective 6 – Reviewed and revised "Criteria and Procedure"	During implementation of the Procedure its feasibility could be verified and input for revision was collected. Objective 6 is well under way to be achieved (40%)

Appendix 2 - Revised Barents Environmental Hot Spot List

Hot Spot Index	Environmental “hot spot”	Environmental and human health problems
Murmansk oblast		
M1	“Pechenganickel” combined smelter, Nickel, Zapolyarny	The largest emitter of air pollutants, particularly SO ₂ in Murmansk Oblast; large volumes of waste water discharges, particularly salts.
M2	“Severonickel” combined smelter, Monchegorsk	The second largest emitter of air pollutants, particularly SO ₂ .
M3	JSC “Apatit”, Kirovsk	Since the 1 st Report, industrial M3-1 emissions increased almost twice, with corresponding increase of all major pollutants. Some increase of waste water discharge is also documented.
M4	Heat and power plant, Apatity	HPP in Apatity is the largest air polluter among HPPs in the Murmansk Oblast, which emits 18,500 tonnes of contaminants, including almost 12,000 of SO ₂ . It is responsible for 84% of total air emissions in Apatity.
M5	Kovdor mining and concentration combined enterprise (Kovdor GOC).	It is the second largest, after JSC “Apatit” discharger of industrial waste waters. Since the 1 st Report, its discharges increased 40%, including more than doubling of sulphates discharge.
M6	Water quality in Kola river and Bolshoye Lake used for drinking water supply of Murmansk city.	More than 6% of drinking water samples in Murmansk do not meet microbiological standards, and 75% - chemical standards. Almost 50% of water used for Murmansk water supply system is extracted from Kola river. Its water quality is strongly affected by pig and poultry farms effluents located in the river watershed. Bolshoye Lake is located not far from the Murmansk waste incineration plant and affected by its environmental releases.
M7	Drinking water supply in Zelenoborsky-1 settlement.	The settlement is supplied with water from lake Bezymyanoe with poor organoleptic quality and periodic deficiency of water resources.
M8	Mercury-containing wastes.	“Ecord Ltd” (Kirovsk), one of two enterprises involved in treatment of used luminescent lamps in Murmansk Oblast, has outdated facilities that contribute to mercury contamination of the environment.
M9	Scrapped ships in the Kola Fjord	122 scrapped ships are located in Kola Fjord contributing to its pollution, increasing navigation risk and causing economic losses.
M10	Handling of oil containing wastes	Oil-containing wastes, particularly solid ones, is an alarming environmental issues in the Murmansk Oblast.
Republic of Karelia		
K1	Gas emissions from Kondopoga pulp and paper combined mill	Kondopoga PPCM is responsible for 18% of total industrial air emissions in Karelia. It is the only large polluter in the Republic, which emissions increased since 1995
K2	Gas emissions from Nadvoitsy Aluminium smelter	The smelter is responsible for 97% of total air emissions in Nadvoitsy. Emissions from the smelter, particularly of fluorine compounds, create significant human health problems.

K3	Drinking water supply in towns and settlements of the Republic of Karelia	In many towns and settlements drinking water quality does not correspond to chemical and microbiological sanitary and epidemiological guidelines. Poor water quality presents serious threat to human health.
K4	Poor water quality in water supply network of Petrozavodsk	The city is supplied with water from Onega lake, with water quality that does not meet the existing guidelines. The existing treatment facilities do not allow to get the required water quality, particularly on chemical parameters.
K5	Pollution of Onega lake with communal waste waters of Petrozavodsk	Poorly treated effluents are discharged into the Petrozavodsk bay that is the source of potable water supply. High nutrient load promote strong eutrophication in the bay.
K6	Absence of municipal sewage K6-1 treatment facilities a number of smaller towns	Untreated wastewaters are discharged to water bodies close to drinking water intakes. In a number of cases, it creates high epidemiological risk
K7	Oil and coal burning at boilers	For production of heat during heating season, one boiler (type PTVM -30) needs 14.8 thousand tons of boiler oil. It forms 0.82 thousand tons SO ₂ .
K8	Hazardous industrial solid wastes and communal wastes. Almost 1/3 of 206 landfills in Karelia are illegal.	Landfills are often located in green zones, along forest roads, contaminate soil, surface water bodies and aquifers.
K9	Negative impact of former municipal dumping ground of sewage on ecosystems of Logmozero and Onega lakes, Petrozavodsk city.	Surfact dump of production wastes of JSC "Petrozavodskmash" is located on a place of a former municipal dumping ground of sewage. Urregulated dumping has converted it into a dumping ground of industrial and municipal wastes of the northern part of the city.
K10	Stocks of obsolete pesticides.	2.5 tons of obsolete DDT is stores in "Sortavala Agroservice" in poor conditions
Arkhangelsk oblast		
A1	Solombala pulp and paper mill (SPPM), Arkhangelsk	Air emission is almost 20% of total in Arkhangelsk, all air pollution with specific contaminants and dust originates from SPPM.
		SPPM waste water treatment plant treats both, its own waste waters and communal effluents. In total, it is 85% of total waste water discharge from the city
A2	Arkhangelsk heat and power plant (AHPP)	AHPP emits almost 45% of total contaminants in the city, mostly acidifying compounds.
A3	Severodvinsk heat and power plants: SHPP-1 and 2	HPPs are responsible for 95% of gas emissions in the city. HPP-1 is the matter of particular concern due to emission of 95% of dust.
A4	Arkhangelsk pulp and paper mill (APPM), Novodvinsk	It is the only PPM in Oblast that has increased its gas emissions since the 1 st NEFCO/AMAP Report. Its annual emission is comparable with total emission of Arkhangelsk. Emissions of specific contaminants and dust is of particular concern
		APPM is the large discharger of waste waters in Oblast (32%). Being located upstream Arkhangelsk in its vicinity, creates permanent environmental and health hazard for this city.
A5	Kotlas pulp and paper mill (KPPM), Koryazhma	KPPM is one of major air polluters in Oblast, particularly with specific contaminants. It emits 4.2 times more

		methyl mercaptane than APPM.
		KPPM is the largest waste water discharger in Oblast (almost 50%) Discharge of large amounts of organic and suspended matter strongly impacts aquatic ecosystem. Significant increase of lignosulphonates is of particular concern.
A6	Toxic solid wastes in Arkhangelsk Oblast	Amount of solid wastes in Arkhangelsk Oblast increased more than three times since the 1 st NEFCO/AMAP Report
A7	Sites of former and current military activities as sources of oil contamination	Large areas in Arkhangelsk Oblast are strongly contaminated with petroleum fuel and spent motor oils, particularly due to former and current military activities.
A8.	Spent motor oil	Since 1995, spent motor oil is not collected and treated in Oblast, and became a serious source of environmental pollution
A9	Enterprises of pulp and paper and timber industry as sources of dioxin pollution	A large number of enterprises are considered as significant sources of dioxin pollution
A10	Stocks of obsolete pesticides	More than 40 tons of obsolete pesticides, many of them in poor storage conditions, are stored in Arkhangelsk Oblast
Nenets autonomous okrug		
N1	Accident at well No 9 in Kumzhinskaya field.	The torch formed at this well due to explosion in the early 1980s lasted until 1987, and led, together with measures to extinguish it, to significant contamination of the area, which is at present belongs to the Nenets Nature Reserve.
N2	Poor drinking water quality in the NAO settlements and towns	Due to poor quality, drinking water supply is one of the most important tasks for NAO. Water quality problems mostly arise due to natural rather than anthropogenic reasons. The quality of potable water meets to sanitary norms only at one settlement (2% of the population), does not meet to sanitary norms at 19 settlements (86% of the population).
N3	Waste waters of Naryan Mar city and its port discharged into Pechora river	Technology used in biological treatment of waste waters in Naryan Mar, and capacity of treatment facilities, do not ensure surface water protection. The port has no storage tanks and used waters are directly discharged into Pechora river.
N4	Handling of mercury-containing wastes.	Mercury-containing used luminescent lamps (1.334 tons) is the most hazardous waste products in NAO
Komi republic		
Ko1	Greenhouse gas emissions to the atmosphere in the Vorkuta coal field	Coal industry is one of the most significant contributors to greenhouse gas emissions to the atmosphere. Coal-mining industry has emitted into the atmosphere 74.2% of total methane, emitted in the Republic of Komi in 2002.
Ko2	High air contamination in Vorkuta city	A number of enterprises in Vorkuta city emit large amounts of contaminants to the atmosphere. Vorkuta cement plant is responsible for 25% of dust emissions. HPP-1 is the main emitter of SO ₂ in the city

Ko3	“Neusiedler Syktyyskar” pulp and paper mill.	NSPPM emits almost 75% of total industrial emissions in Syktyvkar. Emission of specific toxic and organoleptic contaminants is of special concern. It also responsible to the largest volumes of polluted waste waters discharged in the city.
Ko4	Communal sewage discharge in small settlements	Communal sewage treatment facilities in many small settlements are practically absent. Untreated sewage enter water bodies and pose threat to the ecosystems and humans
Ko5	Poor drinking water quality in many towns and districts of the Republic of Komi.	High chemical and microbial pollution of drinking water is observed in Ukhta and Usinsk towns, Knyazhpogostsky, Kortkerossky, Koygorodsky, Ust’-Vymysky districts. Virus contamination has been found in drinking water of Usinsky, Knyazhpogostsky and Kortkerossky districts.
Ko6	Formation of industrial and domestic wastes.	11.0 million tons of industrial and domestic wastes including 3.5 million tons of toxic waste are formed Komi annually. Only 1.2% of wastes are utilized. The dumping grounds of industrial and domestic wastes are pollution sources for ground waters and surface water bodies, from which water intake of potable water is carried out.
Ko7	Wastes of timber and pulp and paper industry	In 2002, timber and pulp and paper industry of the republic produced 1071.7 thousand tons wastes, largest part of them is timber wastes, stored at enterprises and at various landfills.
Ko8	Coal-mining wastes	Numerous coal-mining wastes disposed near mines are the sources of land and atmospheric contamination and pose threat for human health.