Second Edition of the Action Plan on Climate Change for the Barents Cooperation

PROPOSALS FOR AN UPDATED PROJECT LIST

Prepared by the International Barents Secretariat, in close cooperation with the BEAC Working Group on Environment

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Content

1. Introduction to the Second Edition of the Action Plan on Climate Change for the Barents Cooperation

The Action Plan on Climate Change for the Barents cooperation was endorsed at the 14th Meeting of the Barents Euro-Arctic Council and adopted at the 11th Meeting of the Environment Ministers in 2013. It contained a list of projects to be implemented in the period 2013-2015.

By the end of 2015, the International Barents Secretariat made a review of the actions implemented[1]. The review acknowledged that the first Action Plan on Climate Change for Barents Co-operation had been a motivator for the Working Groups to launch new activities as well as to identify climate relevance in already existing projects. In the review of the Action Plan on Climate Change, it was noted that most of the Working Groups had engaged in climate-related activities after the launch of the action plan. It was also noted that the Working Groups which did not participate in the making of Action Plan, had still made climate change one of their priorities.

In order to continue and enhance the climate work within Barents cooperation it was recommended to update the Action Plan to cover also years beyond 2015. When updating the plan, attention should be paid to:

- Pushing activities that have started but not yet been launched or completed
- Promoting practical activities that decrease emissions or increase adaptive capacity and / or essential knowledge on climate change in the Barents Region
- Involving the working groups broadly in drafting and implementation of the plan
- Increasing efforts in those sectors that have the biggest mitigation capacity, such as transport, industry and energy
- Establishing a coherent system for working groups to report on climate activities in their meetings and yearly report

[1] Action Plan on Climate Change for the Barents Cooperation - Review of the results and proposals for the way forward, International Barents Secretariat, September 2015

Based on this review, the Barents Council in the BEAC Joint Communiqué from 2015 called for an update of the project list in the Action Plan by the end of 2016, with contributions from all relevant working groups. The environmental ministers in the Ministerial Declaration from November 2015 called for updating and implementing the Action Plan on Climate Change under the active leadership of the Committee of Senior Officials and with the assistance of the International Barents Secretariat.

When setting out to update the Action Plan, the Working Group on Environment and the International Barents Secretariat found the analysis and recommendations provided in the first Action Plan under the sections *Mitigation*, *Adaptation*, *Research, observation, monitoring and modelling*, and *Outreach* still valid. The need for a revision of the Action Plan was chiefly motivated by the fact that the suggested actions were limited in time to 2015.

The decision was therefore made to leave the introduction, structure and format of the first Action Plan unchanged in the second edition, and recommend the ministers to consider a more thorough revision of the Action Plan at a later stage. The second edition contains an updated list of proposed actions that should be feasible within a timeframe of 3 years, as well as ongoing activities.

It is also recommended to strengthen the cooperation between the Barents Euro-Arctic Council and other international organizations in order to increase awareness of specific northern concerns in relation to climate change, and between the Working Group on Environment (WGE) and other working groups under the Barents co-operation.

2. Recent Developments in climate change relevant to the Arctic

The Paris Agreement, adopted at UNFCCC COP21 in December 2015, is a historically significant landmark in the global fight against climate change. It sets out a long-term goal to put the world on track to limit global warming to well below 2°C above pre-industrial levels – and pursue efforts to limit the temperature increase to 1.5°C. The Paris Agreement also sets out a global action plan to put the world on track to avoid dangerous climate change acknowledging that this will require a global peaking of greenhouse gas emissions as soon as possible and achieving climate neutrality in the second half of this century.

AMAP (The Arctic Monitoring and Assessment Programme) under the Arctic Council has recently (May 2017) presented an information document that shows that stabilizing global temperatures at 1.5-2˚C, in line with the Paris Agreement, will slow but not halt all changes in the Arctic cryosphere and radical emission reduction efforts will be needed to stabilize major parts of the Arctic cryosphere by the end of the century. Substantial changes in the Arctic environment are inevitable even under the most optimistic greenhouse gas reduction scenarios and there is growing evidence that the Arctic cryosphere has the potential to affect humans outside the Arctic through sea level rise, influence on atmospheric circulation and climate feedbacks.

Since the first Climate Action Plan was presented in 2013, a number of relevant reports about climate change in the Arctic region have been presented, primarily within the Arctic Council.

The second *Snow, Water, Ice and Permafrost in the Arctic* assessment (SWIPA), published in 2017, concludes that climate change in the Arctic has continued at a rapid pace. The Arctic has been warming more than twice as rapidly as the rest of the world. Sea ice thickness has declined by 65% between 1975 and 2012 and the Arctic Ocean could be largely free of sea ice in summer already by the late 2030's. The changes will continue to at least mid-century, but after that, there is a possibility for stabilization if substantial cuts in greenhouse gas emissions are made. The report also stresses the need for adaptation strategies to build resilience.

The Arctic Council report *Arctic Resilience Report* (ARR) was released in November 2016. It identified potential cliffs and tipping points – large ecosystem shifts that could significantly influence the ability of social-ecological systems to withstand disruptive change. The report also studies a sample of 25 different communities across the Arctic assessing the key resilience building characteristics that enable communities to navigate effectively social and ecological change. Drawing on these findings the ARR identified ways that the Arctic Council might contribute to strengthening community resilience across the Arctic. Areas for further action will be presented in the Arctic Resilience Action Framework (ARAF) at the 2017 Ministerial. The ARAF will ensure that resilience-building activities continue, within the Arctic Council and beyond, in a focused, collaborative manner.

Within the Arctic, changes in the freshwater system are having a wide range of effects – on climate, ecosystems, landscapes, environmental systems and human society. The Arctic

freshwater system also has an important role in regulating both ocean currents and weather systems globally. This means that changes occurring in the Arctic will have much wider consequences. The Ar*ctic Freshwater System in a Changing Climate* from 2016 is a literature review that covers the effects of a changing climate on the atmosphere, oceans, terrestrial hydrology, ecosystems, Arctic resources and infrastructure.

The AMAP Assessments on *Black Carbon and Ozone as Arctic Climate Forcers* and *Methane as an Arctic climate forcer* (both from 2015) have assessed for these short lived climate pollutants which emission sources and regions contribute most to Arctic climate change, and evaluated how global and regional reductions may influence the projected Arctic warming. While emphasizing that carbon dioxide emissions are the major driver of anthropogenic climate change, it was shown that by globally reducing emissions of methane and black carbon, the expected global warming by 2050 could be slowed down (by approximately 0.2 degrees C for methane and 0.25 degrees C for black carbon and co-emitted air pollutants).

In the AMAP project *Adaptation Actions for a Changing Arctic* (AACA, 2017) the need for adaptation due to a changing climate has been assessed together with other drivers of change. The warming of the Arctic impacts important physical processes such as precipitation, permafrost, snow cover, ice cover and ocean currents. The Barents Sea is expected to become the first Arctic year-round ice-free sea. These changes will have profound impacts on ecosystems (changing distributions for marine and terrestrial species, changing patterns for invasive alien species and diseases, altered food webs, species depending on sea ice) and human societies (extraction of natural resources, shipping, infrastructure on permafrost, fisheries, reindeer herding). The capacity to adapt to current and projected, complex changes varies within the region. Adaptation should be seen as a long-term process.

CAFF recently approved of a *Scoping study for Resilience and Management of Arctic Wetlands*. The objective is to improve the state of knowledge on Arctic wetlands in response to changes in climate and land use, and to enhance resilience and management of Arctic wetlands.

3. Recommended activities

The Action Plan on Climate Change incorporates a selection of the activities proposed by the working groups that were considered to be of the greatest relevance and, at the same time, most achievable. Suggested measures have been grouped into four policy areas:

- Mitigation
- Adaptation
- Research, observations, monitoring and modelling
- Outreach

It should be noted that some of the recommended activities in the Action Plan are relevant for more than one of these policy areas. However, they are listed in the policy area in which they are considered to be of greatest relevance. Some activities have been considered so comprehensive in nature that they have been defined as overarching activities.

4. Action Plan on Climate Change for the Barents Cooperation

I. Overarching Activity

#	Title	Objective/Activity	Responsible	Timeframe
1	Further development of regional climate strategies	- Prepare projects on exchange of experience in development and implementation of regional climate change strategies; - Develop regional climate strategy for the Russian part of the Barents Region	Working Group on Environment (WGE)	2016-2019
2	Coherent system for all working groups to report on climate activities	Develop a knowledge base and involve all the working groups broadly in the work on climate issues on the platform of www.barentscooperation.org	All BEAC working groups / IBS	Yearly
3	Barents 2050	Response to the Paris Agreement: How to chart a new course to a low carbon future for the Barents Region	Working Group on Environment (WGE)	2016-2017

II. Mitigation

#	Title	Objective/Activity	Responsible	Timeframe
1	Emissions of black carbon and other shortlived climate pollutants (SLCP) and greenhouse gases (GHG)	Continued work to complete inventories of emissions and analysis of possible reductions of short-lived climate pollutants in the territories of the Barents Region - Project "Cooperation in the Area of Climate Change Mitigation in the Barents Region" (NCM);	Working Group on Environment (WGE)	2016-2019

		- Continued and strengthened efforts to reduce emissions of GHG and SLCP at the Barents environmental Hot Spots, through energy efficiency and cleaner production activities; **-** Include information about the climate change mitigation contribution in the review of each Hot Spot applying for exclusion	Working Group on Environment (WGE)	2016-2019
2	Preservation of carbon sinks	Protection of old growth forests and wetlands - Barents Protected Area Network (BPAN) II phase: Conservation of high value forests ecosystems to achieve CBD Aichi Biodiversity targets; - Protection of intact forest ecosystems; - Conservation of wetlands, peatlands and mires through existing strategies, support development of new ones	Working Group on Environment (WGE)	2016-2019
3	Unification of cross-border transport plans and promotion of ITS-technology applications	Activities aimed at climate change mitigation and promotion of low-carbon economy through unifying transport plans across the border of the four Barents countries and by introducing ITS (Intelligent Transport Systems)-technology applications in cross-border transport - Barents Region and Transport and Logisticsproject (Kolarctic CBC Programme)	Regional Working Group on Transport and Logistics (RWGTL)	2017-2020

III. Adaptation

#	Title	Objective/Activity	Responsible	Timeframe
1	Rivers, wetlands and mires restoration measures	Develop a joint international project on river restoration, and hereby also address climate adaptation measures relevant for river ecosystems Co-operation on water management and restauration along the river Torne, hereunder benchmarking and harmonization of hydrological monitoring and flood forecasting methods relevant for adaptation to climatic change	Working Group on Environment (WGE)	2017/2018-
2	Nature protection in a changing climate	Promote and support conservation efforts regarding forests and wetlands to secure resilient ecosystems and species survival:	Working Group on Environment (WGE)	2016-2019

		- Barents Protected Area Network (BPAN) II Phase; - Protection of old growth forests; - Conservation of wetlands, peatlands and mires; - Greenbelt of Fennoscandia		
3	Barents Rescue Cooperation	Barents Rescue Exercises for prevention of emergencies and response to them (including training on common tactics in case of landslides, floods and other climate change impacts)	Barents Joint Committee on Rescue Cooperation (BJCRC)	On-going
4	Increased knowledge of policies on climate change mitigation and adaptation for the forest sector	- Exchange of experiences between the Barents countries on policies and action plans for climate change mitigation and adaptation in the forest sector; - International Forest Forum "Forest contribution to climate change mitigation and adaptation in the Barents Region. Climate policies of the BEAC member states in the forest sector".	Barents Forest Sector Network (BFSN)	2017-2020
5	Increased circumboreal cooperation to address climate change and forest sector competitiveness	Within the frames of Circumboreal Cooperation: - Launch a cooperative research initiative to address shared boreal issues and/or cooperation in the boreal bioeconomy; - Develop a system/network of boreal monitoring sites linked to LTER (Long-Term Ecological Research sites) or other monitoring network to highlight the changes in the boreal in the coming decades; - Organise a Boreal Summit, with the with the aim of a ministerial declaration on the importance of boreal forests to global cycles and economies.	Barents Forest Sector Network (BFSN)	2017-2020
6	Cooperation on reindeer husbandry	- Support of the activities of the International Center for Reindeer Husbandry in Kautokeino; - Further development of reindeer husbandry education (Kautokeino/Inari, Lovozero and Naryan-Mar); - Promotion of indigenous peoples' traditional knowledge.	Working Group of Indigenous Peoples (IPWG)	2016-2018

IV. Research, observation, monitoring and modelling

#	Title	Objective/Activity	Responsible	Timeframe
1	Education and Research	- International Master programme "Environmental Risk Management in the Arctic" (NArFU, 120 ECTS, in English), http://www.narfu.ru/en/studies/degree_programs/erma/ - NArFU Expedition "Arctic Floating University": acquiring new knowledge about the state and changes in the ecosystem of the coastal areas of Franz Josef Land archipelago (research areas: hydrometeorology, ecology, arctic biology, geography, ethnopolitology, international law) -IV Barents PhD Summer School "Barents Region is a Territory of Ecology" generate and promote knowledge on environmental protection, climate change and its impact on human health, protected areas management, prevention of natural hazards, etc. for enhancing prospects of well-being and future prosperity of the Barents Region (NArFU, Northern State Medical University, UiT – the Arctic University of Norway, Umea University, Oulu University) http://narfu.ru/en/media/news/297151/ - INTERREG NPA project "ADAPT NORTHERN HERITAGE – Adapting Northern Heritage to Environmental Impacts of Climate Change Through Community Engagement and Informed Conservation": risk assessments of climate change impacts on historic places and associated adaptation strategies; - NordForsk project "CLINF: Climate change effects on the epidemiology of infectious diseases and the impact on Northern societies" (NArFU, NORUT)	Joint Working Group on Education and Research (JWGER)	On-going 2017 2016-2020 2015-2020
2	Monitoring and Modelling	Bilateral project "Developing of methodologies for monitoring, assessment, forecasting and prevention of risks related to transfer of toxic pollutants through biological pathways capable of accumulating in trophic chains and spreading in Arctic ecosystems" (NArFU, Oslo University) http://narfu.ru/biomonitoring/en/	Joint Working Group on Education and Research (JWGER)	2016-2018

3	Black carbon	Research module “Inventory of black-carbon emissions in Arkhangelsk Region” as a part of developing a Regional Climate Strategy for the Russian Part of the Barents Region (NArFU)	Joint Working Group on Education and Research (JWGER)	2016-2020

V. Outreach

#	Title	Objective/Activity	Responsible	Timeframe
1	Dissemination of information	- Collection of knowledge and distribution of updated information about climate change and recommended action; - Opening and updating of the webpage devoted to climate issues on the platform of www.barentscooperation.org.	Working Group on Environment (WGE), other BEAC working groups, IBS	2016-2019
2	International Forum “The Arctic – Territory of Dialogue”, Arkhangelsk, http://forumarctica.ru	Session on Environmental Protection and Climate Change “Arctic Ecology: Area of Possibilities and Hidden Resources” (NArFU)	Joint Working Group on Education and Research (JWGER);	29-30 March 2017
3	Raising awareness on climate change among youth	Information campaign on climate change consequences and related environmental problems; Workshop on climate change issues	Barents Regional Youth Council (BRYC)	2017-2019
4	Cooperation with international organisations	Information exchange between BEAC, Arctic Council (AC), Nordic Council of Ministers’ (NCM) and other institutions; Participation in relevant international events on climate change issues	Working Group on Environment (WGE), other BEAC working groups, IBS	On-going

5. Funding of Environmental and Climate Change Related Projects

Financial Institution	Financial Instrument	Priority areas	Geographical coverage	Requirements for Partnership
EU Interreg Programmes	Northern Periphery and Arctic Programme www.interreg-npa.eu	Promoting innovations and entrepreneurship; **Renewable energy and energy efficiency;** Cultural and natural heritage	FIN, SWE, NO, Ireland, the UK, the Faroe Islands, Iceland, Greenland (RU and Canadian partners case-by-case)	At least 3 partners from 3 NPA countries, at least one from EU Member States; LP - from EU Member States, Norway or Iceland
	Interreg Nord www.interreg.nord	Research and innovation; Entrepreneurship; Culture and **environment**; Joint labour markets	FIN, SWE, NO	At least 2 partners from 2 countries, one from EU MS; LP from FIN or SWE
EU ENI Cross-Border Cooperation Programmes	Kolarctic CBC Programme www.kolarctic.fi	**Viability of arctic** economy, **nature and environment**; Fluent mobility of people, goods and knowledge	Core regions: Lapland, Norrbotten, Finnmark, Troms, Nordland, Murmansk Reg., Archangelsk Reg., NAO; Adjoining regions: Oulu Reg., Västerbotten, Karelia, Komi	At least 1 partner from FIN or SWE and 1 from RU
	Karelia CBC Programme www.kareliacbc.fi	Business and SME development; Culture; **Environment;** Border management and security	Core regions: Kainuu, North-Karelia and Oulu Reg. from FIN, Republic of Karelia from RU	At least 1 partner from FIN and one partner from RU
Arctic Council (AC) www.arctic-council.org	Project Support Instrument (PSI)	**Pollution prevention, abatement and elimination**	Arctic Region	Only for projects, which have been approved by the AC and are action/investment-oriented
Nordic Council of Ministers (NCM) www.norden.org	NGO Programme	Social and health; Culture; **Environment;** Development of democracy	Nordic countries, Northwest Russia, Baltic States, Poland, Belarus	At least 1 Nordic, 1 Baltic/Polish and 1 Russian/ Belarussian partner

Administered by NordRegio, www.nordregio.se	Open Call Programme	Various themes within networking and competence enhancement	Nordic countries, Northwest Russia	At least 2 partners from 2 Nordic countries and 1 from RU; LP from a Nordic country
	Arctic Cooperation Programme	People; Sustainable economic development; **Environment, nature and climate;** Education and skills enhancement	Arctic Region	At least 3 Nordic partners; LP from a Nordic country
Administered by NEFCO www.nefco.org	Thematic Programme for environment and climate	Environment and climate	Nordic countries, Northwest Russia	At least 2 partners from 2 Nordic countries and 1 from RU; LP from a Nordic country
Nordic Environment Finance Corporation (NEFCO) www.nefco.org	Barents Hot Spots Facility (BHSF)	Project development at the environmental Hot Spots in Russia	Barents regions of Russia	
	Investment Fund	Positive environmental impacts	Eastern Europe	
	Nordic Environmental Development Fund (NMF)	Cleaner production programmes; Eco-efficient measures within water, wastewater and housing sector	Russia, Ukraine, Belarus	
	Nordic Project Fund (Nopef)	Feasibility studies on green growth, climate and renewable energy	Nordic countries	For small and medium-sized enterprises (SME)
Nordic Investment Bank (NIB) www.nib.int	Investment Fund	**Sustainable growth;** **Environment;** Promoting competitiveness	Nordic and Baltic member countries	Projects should improve competitiveness and/or the environment, and should be of mutual interest to partners