

Cover sheet

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United Nations Economic Commission for Europe (UNECE)

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Is your state or organization still interested in continuing as an Observer of the Arctic Council?

Yes No

Observer Report

Please describe in no more than 2 pages your state or organization's contributions to the work of the Arctic Council's Working Groups, Task Forces and/or Expert Groups since the time of your most recent report, or in the previous two years. Please highlight contributions to specific projects, such as through proposals, concept development, in-kind and financial support, and hosting of meetings. If applicable, please include mention of collaboration with Permanent Participants, such as project proposal endorsement and support.

In April 2015, the United Nations Economic Commission for Europe (UNECE) participated in the Arctic Council Ministerial meeting in Iqaluit, Nunavut, Canada. UNECE welcomed the *Framework for Enhanced Action to Reduce Black Carbon and Methane*, which was endorsed during this meeting. The reduction of black carbon (BC) emissions is also a priority for the UNECE Convention on Long-range Transboundary Air Pollution (Convention), which covers 51 countries including all the Arctic States. UNECE hosts the secretariat of the Convention. In 2012, the Parties to the Convention unanimously adopted amendments to the Convention's 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol). The amended Protocol now also includes emission reduction commitments for fine particulate matter (PM_{2.5}) for the year 2020 and beyond. In implementing measures to achieve their national targets for PM_{2.5}, Parties should give priority to emission reduction measures that also significantly reduce BC, in order to provide benefits for human health and the environment and to help mitigate near-term climate change.

In 2013, the Arctic Environment Ministers meeting in Sweden emphasized the importance of BC emission inventories in identifying emission trends and mitigation opportunities, and concurred that the Arctic Council States should periodically produce national emission inventories for BC, in line with guidelines to be agreed under the Convention. In December 2013, the Convention Parties adopted such emission reporting guidelines. The BC emission inventories should be submitted to the Convention and shared with the Arctic Council, with the ambition to have submissions from 15 February 2015.

For the 2015 reporting cycle, 29 Parties submitted their BC inventories, including seven Arctic Council Member States. Notably, 14 Parties submitted their entire time series 1990–2000–2013. For the 2016 reporting cycle as of 13 April 2016, 33 Parties submitted their BC inventories, including 5 Arctic Council Member States. The emission data for all air pollutants (including BC) submitted to the Convention undergo a review process, which helps Parties to further develop the national emission inventories in terms of their quality, consistency and completeness.

The potential for cooperation between the Convention and the Arctic Council extends beyond BC inventories and emission abatement measures, especially in the gas and oil sectors. The BC inventories can provide a unique input to atmospheric modelling of BC to and within the Arctic region and for estimation of related adverse health and environmental effects. Over the last 35 years, the Convention has developed effective methodologies, tools and measures to deal with transboundary air pollution on a regional scale that can be applied also to the Arctic region. On a longer time scale, the results of BC-related work may be used as input for the development of cost-benefit optimized emission reduction scenarios for the Arctic States by means of integrated assessment modelling and cost-benefit analysis.

Cooperation between the Arctic Monitoring and Assessment Programme (AMAP) and the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) under the Convention has already been established. In particular, the EMEP Task Force on Hemispheric Transport of Air Pollution (HTAP) investigates the air pollutant

transport and its adverse effects for the entire Northern Hemisphere. In addition, several International Cooperative Programmes under the Convention's Working Group on Effects (WGE) have provided inputs to AMAP's work.

Further cooperation potential is being explored by relevant centres and programmes under the Convention and their counterparts under the Arctic Council. At several formal and informal meetings, the interest in establishing closer cooperation between several bodies under the Convention and AMAP was discussed and reiterated. The 2016–2017 workplan for the implementation of the Convention provides for this activity under item 1.3.1: "Explore possible use of EMEP/WGE Group on Effects tools, data and infrastructure to support the Arctic Monitoring and Assessment Programme activities".

At the thirty-fourth session of the Convention's Executive Body in December 2015, the Chair of AMAP gave a presentation on the ongoing cooperation with the Convention. Activities carried out in early 2016 included a joint technical coordination meeting, in Potsdam, Germany on 16 February 2016 and a joint session on Arctic matters as part of the meeting of the HTAPs Task Force on 17 February 2016.

UNECE invites the Arctic Council to further explore the opportunities for closer collaboration on BC and other matters by working with the United States chairmanship, other Arctic States, and relevant programmes and bodies under the Arctic States and the Convention.

If applicable, please describe in no more than 1 page your state or organization's future plans for contributing to the work of the Arctic Council's Working Groups, Task Forces and/or Expert Groups. Please highlight intentions to contribute to specific projects and to collaborate with Permanent Participants.

As mentioned above, the activities envisaged in the 2016–2017 workplan for the Convention will be pursued. Further cooperation opportunities for 2017 and beyond will be explored.

In order to establish a framework for translating ideas into more concrete proposals for coordinated activities, for further consideration under the respective organizations, three general areas for future collaboration were proposed: work on short-lived climate forcers (SLCFs); work on persistent organic pollutants (POPs) and climate change; and on mercury that could potentially contribute to planned work under UNEP to update its Global Mercury Assessment (GMA). In the table below see the specific requests from AMAP for consideration by the Convention's bodies.

Objectives	Requests to EMEP/WGE bodies
SLCFs/co-emitted species	
Development of emission inventories for use in AMAP multi-contaminant air pollution modeling efforts.	CEIP/TFEI/IIASA-CIAM to work together with AMAP SLCF EG ¹
Development of emissions scenarios for use in multi-contaminant air pollution assessments (including scenarios for SLCFs and co-emitted species). If possible, this would also address costs and co-benefits of (MTFR) measures and aim to improve harmonization of scenario target years used by different groups in various assessment activities.	IIASA-CIAM to work together with AMAP SLCF EG
Collaboration on the design and implementation of multi-contaminant modelling activities in support of future assessments.	TFMM/TFHTAP/MS-CWest to work together with AMAP SLCF EG
Collaboration on the development of knowledge and information concerning pollution from Arctic transportation (shipping, aircraft operations); oil and gas (flaring/venting); and agricultural/wildfire burning sectors	TFHTAP in support of relevant AMAP EGs
Enhancing management and accessibility of monitoring data for SLCPs and co-emitted species.	CCC to assist AMAP in providing access to data available in the EBAS system on aerosols and radiatively important species through collaboration with WMO-GAW
Enhancing SLCP monitoring capabilities in high-latitude Eastern Eurasia	TFMM/EMEP/AMAP to support initiatives establishing and running monitoring stations, and making data available
Collaboration on the development of information on human and ecosystem health effects of air pollutants in Arctic areas,	WGE to work together with

¹ Potentially this could also address needs of the Arctic Council *Expert Group on Actions on Black Carbon and Methane*, however this table only covers AMAP needs.

including effects of O3 and PM	relevant AMAP EGs
POPs	
Provision of monitoring data/products for AMAP assessments and/or Stockholm Convention effectiveness evaluations	CCC in support of AMAP POPs EG
Development of modelling activities (e.g. building on ArcRisk work) in support of AMAP and LRTAP information needs (including effects of climate change on contaminant pathways and cycling)	MSC-East/MSW- West/TFHTAP/TFMM together with AMAP POPs EG
Development/improvement of POPs emissions inventories using both 'top-down' approaches (using inverse modelling and monitoring data, per capita emission factors from local scale studies, etc.) and traditional 'bottom-up' approaches (science/expert-based inventory construction using materials flows, EFs, etc.)	CEIP/TFMM/TFHTAP together with AMAP POPs EG
Mercury	
Contributing to the development of a new global inventory of anthropogenic mercury emissions to air, in particular with respect to comparisons with national (LRTAP) emission estimates, and potentially also work on Hg emission scenarios	CEIP/IIASA-CIAM to work together with UNEP/AMAP inventory team
Contributing mercury modeling expertise to the GMA modelling expert team	MSC-East/TFHTAP/TFMM to work together with UNEP/AMAP modelling team
Making available results of planned CLRTAP mercury assessment (e.g., data products from the moss deposition network; development of (global) critical loads for Hg; information concerning mercury human health effects)	WGE in support of UNEP/AMAP GMA group
Development of an information note to the Minamata Convention INC/COP on potential contribution of (AMAP and EMEP) regional monitoring programs to global monitoring effort in support of the Minamata Convention	EMEP (with input from CCC) to consider development of such a note together with the AMAP WG
Other (incl. monitoring/operational activities)	
Harmonization of monitoring guidelines	CCC together with AMAP EGs
Improving data reporting systems and access to Arctic data	CCC together with AMAP WG/Secretariat
Support for QA/QC initiatives including field sampling/monitoring equipment and laboratory inter-comparisons and performance testing, site visits, etc.)	CCC together with AMAP monitoring groups
Consideration of possibilities for future joint (scientific/technical) assessment activities ²	EMEP/WG-Effects and AMAP WG

The proposals for cooperation included in the table will be discussed during the annual meetings of the Convention bodies between February and December 2016 and shared with the AMAP and other relevant bodies any the Arctic Council.

² All AMAP activities identified above are subject to further AMAP WG consideration.

If applicable, please describe in no more than 1 page your state or organization's contributions to other aspects of the Arctic Council and its goals not covered by the previous sections since the time of your most recent report, or in the previous two years.

n/a