

This draft is prepared jointly by AMAP, EGBCM and ACAP for submission 28 February 2018; details may be further revised

## **Draft 2-page Proposal for Arctic Environment Ministers Meeting focus on Short-lived Climate Forcers (SLCFs)**

### **Summary of the main messages you would like to convey.**

The Arctic Council and the Finnish Chairmanship have identified reducing emissions of Short-lived Climate Forcers (SLCFs) as a priority for slowing the near-term rate of Arctic warming. Such action is seen as an essential complement to reductions of carbon dioxide and other long-lived greenhouse gas emissions. It is now time to move from statements of intent to concrete actions to fulfil the ambitious goals expressed regarding this subject.

### **Main environmental challenges and issues that require common solutions in the Arctic**

In adopting the Paris Agreement, the Parties to the UNFCCC recognized that reductions in the emission of carbon dioxide are the backbone of any meaningful effort to mitigate climate forcing. In 2015, the Arctic Council's Arctic Monitoring and Assessment Programme (AMAP) Working Group produced its first major Assessment of short-lived climate forcers (SLCFs). The AMAP assessment findings were that in order to slow the pace of warming over the next two decades, in addition to reducing carbon dioxide emissions, countries must also reduce emissions of powerful short-lived climate forcers such as black carbon and methane.

Short-lived climate forcers are gases and particles that cause warming but which have lifetimes in the atmosphere of a few days to a few decades - much shorter than that of carbon dioxide. Because of this shorter lifetime, atmospheric concentrations are reduced more quickly in response to emissions reductions, thus providing 'faster' climate mitigation benefits.

One finding of the 2015 AMAP assessment was that Arctic States have an important role to play in reducing Arctic warming caused by emissions of certain SLCFs.

The Arctic Council's Arctic Contaminant Action Program (ACAP) has acted on these conclusions and has developed pilot projects that build capacity and demonstrate emission reduction potential. Through the ACAP Short-lived Climate Pollutant (SCLP) Expert Group, a number of projects have directly reduced black carbon emissions. These projects have positively impacted people living and working in the Arctic, and their success is show-cased on the Black Carbon Case Studies platform on the ACAP website.

To strengthen its role in reducing emissions of SLCFs, the Arctic Council established its Expert Group on Black Carbon and Methane (EGBCM) and adopted a Framework for Action on Black Carbon and Methane.

In 2017, the Arctic Council adopted the recommendations developed by its EGBCM, which include an aspirational goal for Arctic States to, collectively, reduce black carbon emissions by at least 25-33 percent below 2013 levels by 2025, acknowledging the importance of implementing those recommendations as nationally appropriate, recognizing that Arctic communities are entitled to develop in accordance with their needs and interests. The policy recommendations adopted by the Arctic states emphasize the need to reduce:

- emissions of black carbon from diesel-powered mobile sources;
- emissions of methane from oil and gas leakage, venting, and flaring;
- emissions of black carbon from residential biomass combustion appliances, and;
- methane emissions from solid waste disposal.

At the Arctic Council Ministerial meeting in May 2017 the Chairmanship of the Arctic Council passed to Finland for the period 2017-2019. In addressing their Chairmanship, Finland emphasized the importance of adopting the commitments of the Paris Agreement and implementing the AC's "Framework for Action on Enhanced Black Carbon and Methane Emissions Reductions" (2015).

Work towards these goals will require discussions and agreements among the Arctic Council members and Observers. Efforts to coordinate work under the Arctic Council with the EU (through its Action on Black Carbon in the Arctic) and international bodies such as the United Nations Economic Commission for Europe, the Convention on Long-range Transboundary Air Pollution, the Climate and Clean Air Coalition and the IPCC are underway.

A focus on SLCFs at the Arctic Environment Ministers' Meeting (Rovaniemi, 11-12 October 2018) could provide a significant impetus to the work that aims at fulfilling the collective target and implementing the recommendations of 2017 for enhanced action on black carbon and methane. In particular, the Ministers' meeting would present an opportunity for enhancing engagement with non-Arctic Council countries and strengthening linkages with sector ministries that have a key role in addressing climate and air pollution issues. The meeting would also be an opportunity for ministers to consider the second round of national reports on black carbon and methane, submitted to the Arctic Council Secretariat on December 31, 2017.

The topic aligns well with the SDGs. In particular Goal 17 - *Strengthening the means of implementation and revitalize the global partnership for sustainable development*, SDG Goal 13 - *Take urgent action to combat climate change and its impacts*, and SDG Goal 11 - *Make cities and human settlements inclusive, safe, resilient and sustainable* are directly relevant for efforts to reduce emissions of black carbon and methane.

Building on the EGBCM's 'Summary of Progress and Recommendations 2017' the Arctic Environment Ministers' meeting could contribute to further progress by discussing topics such as the following:

- Planned Arctic States' policy efforts to reduce emissions of black carbon and methane. Specific topics may include the state of emission standards for vehicles, reduction of emissions from shipping, and ways to encourage the electrification of transport. Further improvement of technologies for domestic heating and further actions to reduce emissions from heating and local energy production also have policy dimensions;
- Efforts to encourage research and development (R&D) in order to support and scale up innovations, including actions under the Arctic Council's Arctic Contaminants Action Program (ACAP) that reduce emissions of SLCFs;
- Improving the sharing of best practices and lessons learned from actions already being undertaken for example in the oil and gas industry, in transport and in heating solutions;
- Encouraging the uptake of recommendations and good practices among Arctic States and Observer States, and potentially more broadly in other international fora in topics such as reduced agricultural burning, preservation of soil carbon and general reduction of emissions from agriculture and animal husbandry.
- Encouraging R&D efforts that reduce uncertainties in understanding the Arctic climate response to SLCFs.

### ***The Arctic Monitoring and Assessment Programme (AMAP)***

AMAP is the Arctic Council Working Group responsible for "providing reliable and sufficient information on the status of, and threats to, the Arctic environment, and providing scientific advice on actions to be taken in order to support Arctic governments in their efforts to take remedial and preventive actions relating to contaminants and adverse effects of climate change".

In 2015, AMAP produced two SLCF assessments addressing, respectively, Arctic climate impacts of Black Carbon and Tropospheric Ozone, and Methane. Follow-up work is planned under the AMAP work-plan for the period 2017-2019 and subsequent period, aiming at delivery to the Arctic Council Ministerial Meeting in 2021 of a new comprehensive assessment on state of science on Arctic SLCFs.

The future work under AMAP will support the Arctic Council Framework for Action on Black Carbon and Methane Emissions Reductions in addressing calls for "continuing monitoring, research and other scientific efforts, with the inclusion of traditional and local knowledge, to improve the understanding of black carbon and methane emissions, emission inventories, Arctic climate and public health effects, and policy options". It will consider SLCFS and co-emitted air pollutants, ecosystem and health as well as climate impacts; address major areas of uncertainty in relation to modelling, monitoring, and emission scenarios and projections; and consider associated costs and co-benefits of mitigation to better underpin policy decisions scientifically.

In this work, AMAP will coordinate closely with the EGBCM to ensure that its work is complementary to that of the EGBCM.

AMAP Secretariat is also engaged in coordinating the implementation of the EC Action on Black Carbon in the Arctic, and in collaborating with, in particular, scientific groups working under the auspices of the Convention on Long-range Transboundary Air Pollution. Such coordination is specifically designed to avoid duplication, make best use of resources and promote cost-effective work to enhance knowledge that can underpin policy development in the area concerned.

### ***The Arctic Council Expert Group on Black Carbon and Methane (EGBCM)***

The objective of the Expert Group on Black Carbon and Methane is to periodically assess progress of the implementation of the Arctic Council Framework for Action on Black Carbon and Methane (the Framework), and to inform respective policy makers from Arctic States and for participating Arctic Council observer States.

The Framework was adopted in the Iqaluit 2015 SAO Report to Ministers, and commits the Arctic Council to take enhanced, ambitious, national and collective action to accelerate the decline in our overall black carbon emissions and to significantly reduce our overall methane emissions.

The terms of reference for the EGBCM, *inter alia*, include the following:

- *identify areas and actions related to policies and best practices that could potentially be enhanced or replicated; opportunities for further action where gaps exist; and activities related to awareness-raising, or where there is the opportunity to share this with relevant international and regional fora;*
- *conduct other activities as necessary to achieve the objectives laid out for the Expert Group.*

The 'Summary of Progress and Recommendations 2017' made policy recommendations for action in four focus areas: 1. Diesel-Powered Mobile Sources, 2. Oil/Gas Methane Leakage, Venting, and Flaring, 3. Residential Biomass Combustion Appliances and 4. Solid Waste Disposal. In addition, the EGBCM provided recommendations on Improving the Technical Basis of the Expert Group's Work. The Summary Report also included the goal that "black carbon emissions be further collectively reduced by at least 25-33 percent below 2013 levels by 2025". The Summary Report was adopted under the Fairbanks Declaration of 2017.

At its meeting in Helsinki, October 2017, the EGBCM also discussed the possibility to deal with new issues such as stationary diesel engines, institutional wood burning in addition to residential biomass consumption, enteric fermentation and wild fires. These will be reflected during the EGBCM's deliberations in 2018 and may lead to text and new recommendations in the forthcoming report.

In its work the EGBCM will co-operate closely with AMAP and ACAP, building on the comprehensive scientific assessment work on SLCFs of AMAP and the specific examples and cases of solutions reducing emissions that ACAP has supported and disseminated.

## ***The Arctic Council Arctic Contaminants Action Program (ACAP)***

### *Arctic Contaminants Action Program (ACAP)*

ACAP's mission is to contribute to the efforts to reduce environmental risks and prevent pollution of the Arctic environment. ACAP acts as a strengthening and supporting mechanism of the Arctic Council to encourage national actions to reduce emissions and other releases of pollutants and to reduce environmental, human health and socio-economic risks. ACAP, in co-operation with national authorities, develops pilot projects that build capacity and demonstrate emission reduction activities for contaminants. Exchange of information and knowledge on best practices, technologies, and regulations and other measures among Arctic States, is a key instrument. ACAP contributes to implementation by the Arctic States of international conventions and related protocols relevant to the Arctic. ACAP strives to support those pilot projects that contribute to reductions in emissions of:

- Hazardous substances such as persistent organic pollutants (POPs), mercury, hazardous waste, and others regulated by international conventions;
- Short-lived climate forcers (SLCPs) such as black carbon, methane, and HFCs at present covered partly under international conventions.

Activities on SLCPs in the 2017-2019 work plan include:

- Continued development of the Black Carbon Case Studies platform<sup>1</sup>, which can be used to promote the work that is already being done in the Arctic, and show case effective solutions and best practices relevant to other parts of the circumpolar region.
- Mitigation of black carbon and methane emissions from associated petroleum gas (APG) flaring in the Arctic zone of the Russian Federation. This project aims to improve knowledge and contribute to reductions of black carbon and methane emissions from the oil and gas sector at two sites in Russia. Results from this project may be linked to work of the EGBCM and to the work of the Climate and Clean Air Coalition (CCAC).
- The Mitigation of methane emissions at the Syktyvkar Dyrnos landfill project aims to close the existing landfill and install a methane gas collection and utilization system as well as construct a new land-fill that meets Russian Federation and EU environmental standards.
- Phase-out of fluorinated greenhouse gases and ozone-depleting substances at fish and seafood processing enterprises in Murmansk. The objective of this project is to inventory and assess the feasibility of phasing out the use of HFC-HCGC (ODS) at on- and off-shore fish and seafood enterprises. The second phase of the project will implement ozone and climate-safe technologies, including capacity building measures. This project supports implementation of the Montreal Protocol and the UNFCCC Paris Agreement.
- The pilot project Arctic Green Shipping – SLCP mitigation aims to significantly reduce atmospheric emissions from river shipping in the northern regions of the Russian Arctic. Best practices could be replicated in other region of the Russian Federation, the Arctic and around the globe.

ACAP will continue to collaborate with AMAP and the EGBCM to ensure that project focused work is mutually reinforcing of the mandates of these other subsidiary bodies of the Arctic Council.

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<sup>1</sup> <http://www.arctic-council.org/index.php/en/acap-home/black-carbon-case-studies>