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Memorandum to Senior Arctic Officials: Arctic Council Observers,
Pollution focus: in relation to AMAP, EGBCM and ACAP work on short-
lived climate forcers, including black carbon

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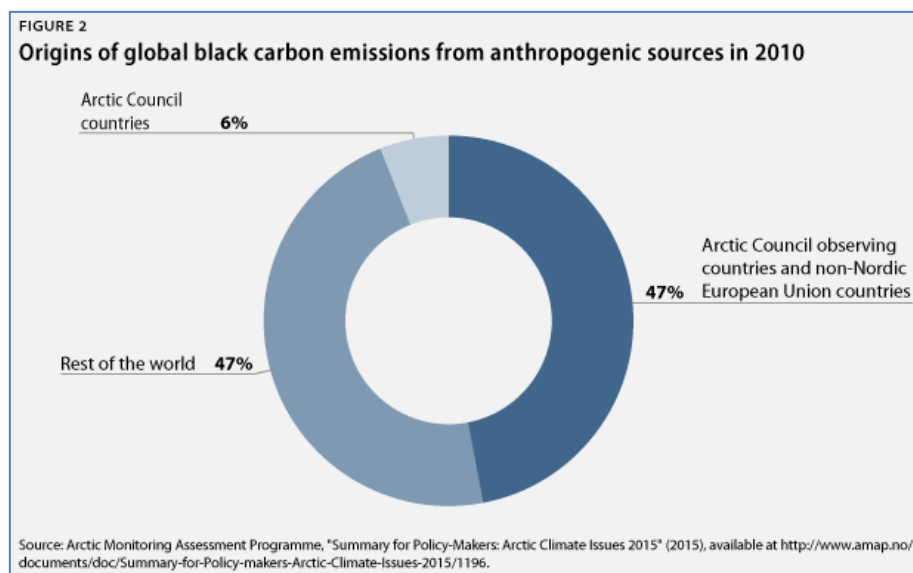
Arctic Council Observers

Pollution focus: in relation to AMAP, EGBCM and ACAP work on short-lived climate forcers, including black carbon

Areas of potential co-interest:

AMAP is currently preparing an update assessment of short-lived climate forcers (SLCFs) and their impacts on Arctic climate change, for delivery in 2021. The assessment will update previous AMAP scientific work on these issues delivered in 2015. The work in 2015 provided the basis for the Arctic Council’s Framework for Action on Black Carbon and Methane, and the subsequent work of its Expert Group on Black Carbon and Methane (EGBCM). The new work will similarly be closely connected to the information needs of the EGBCM as well as other international initiatives addressing SLCFs.

The AMAP 2015 assessment identified the important contribution that black carbon emissions in the Arctic states make to warming in the Arctic; and also the significant contribution that Arctic countries together with Arctic Council observer countries make to back carbon emissions globally. Concerted action by Arctic Council member and observer states could be the key to advancing international policy to mitigate black carbon emissions that would have short-term benefits in avoiding climate warming in the Arctic and globally, as a supplement to the urgently needed measures to reduce CO2 emissions.



The EGBCM focuses on the actions taken by Arctic Council member states and observers to reduce emissions of SLCFs. 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.

The Arctic Council's Arctic Contaminant Action Program (ACAP) has developed pilot projects that build capacity and demonstrate emission reduction potential. Through the ACAP Short-lived Climate Pollutant (SLCP) 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.

Engagement:

AMAP welcomes the participation of observers in its new SLCF assessment work and the important contributions that work in observer countries can make to improving scientific understanding of this issue. At the recent meeting of the AMAP SLCF expert group 25% of the 40 participating experts were from observer countries and organizations, including from France, Germany, Italy, Japan, Switzerland the United Kingdom, and the EU.

The EGBCM also strongly encourages the participation of observers in exploring progress actions and developing recommendations. Observers have provided important input into the discussion on and contribute to the analysis of progress in reducing emissions of SLCFs.

Questions for discussion:

AMAP's SLCF expert group, the EGBCMs and the ACAP SLCP group are all dependent on observer contributions. Therefore the groups jointly raise the following questions for discussion:

1. What is the most effective way of sharing information on emissions of black carbon and other short-lived climate forcers and how would observers like to contribute to the efforts ongoing to compile and analyze this information in the AMAP and EGBCM in such a way that the results can also be used in support of domestic policy implementation and development?
2. How would observers like to contribute to work that will be undertaken in 2018 to develop new scenario projections on emissions of black carbon and other SLCFs? What aspects of the scenario work are of particular interest?
3. What aspects should be particularly stressed in AMAP's scientific work updating its assessment of the climate-forcing and impact due to emissions of black carbon and other SLCFs from key sectors that impact the Arctic?, for example with respect to information on observations of black carbon and other SLCFs from observer monitoring activities, modelling (integrated) climate response and impacts of SLCFs, etc., including possibly financially supporting work to meet identified needs that are not yet covered.
4. Which sectors are of particular interest in identifying policies and measures reducing emissions of SLCFs?

Follow-up

AMAP's SLCF expert group has proposed a series of policy-relevant questions to be addressed in its new assessment work (see below). The AMAP, EGBCM and ACAP have also identified a number of potential topics for further work. These include the following

- 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.

These topics, together with AMAP's policy relevant questions may guide observers in considering their response to the above questions to be discussed at the Observers' Session. All reflections would be both welcome and useful to the developing work under the AMAP SLCF expert group, as well as the work of the EGBCM and ACAP. AMAP, the EGBCM and ACAP would also appreciate suggestions or ideas on how we in general could be more effective in engaging with Observers in work of the groups in the future.

Policy relevant science questions guiding the work of the AMAP SLCF expert group

What are the lessons-learnt of earlier and current air pollutant policies in respect to Arctic?

What is the potential benefit, in terms of reduced Arctic warming, of GHG and SLCF mitigation by Arctic nations (Arctic Council and its Observers countries) and globally in the near-term (i.e. 2050)?

- What is the potential benefit, in terms of reduced Arctic warming, of SLCF mitigation by Arctic nations (Arctic Council and its Observers countries)?
- What are the consequence of the Arctic Council collective black carbon goal to the Arctic climate and other impacts?
- What consequences do the other commitments of the countries, i.e. the Paris agreement (CH4, INDCs/NDCs), have on the Arctic?
- How can GHG and SLCF mitigation best be combined to reduce Arctic warming and achieve other benefits?

How robust is the knowledge on sector based mitigation potential with regards to Arctic impacts?

Set of questions inspired by the 2015 Arctic Council Framework for Action on Black Carbon and Methane document:

- What is the status and trends of short-lived climate pollutants such as black carbon and methane in the Arctic atmosphere? Are they in line with what should be expected taking into account the Arctic Council and other efforts to reduce emissions?
- What are the impacts of anthropogenic emissions on Arctic climate and public health?
- What are the associated costs of emission mitigation?
- What role do the natural sources play in emissions, concentrations and impacts? What are the expected trends in natural emissions in the future?