



Arctic Council SAO plenary meeting (eDocs code: ACSAOUS202) 16-17 March 2016, Fairbanks, Alaska, U.S.A.

Document Title

Summary Report from the First Meeting of the Expert Group on Black Carbon and Methane (BCM)

Agenda item number

6.2

Submitted by

EGBCM Chair

Document filename

EDOCS-3208-v3-

ACSAOUS202_Fairbanks_2016_6-2_EGBCM_01_2_Page_Summary

Number of pages, not including this cover sheet

2

Type (e.g. report, progress report, etc.)

Summary Report

Chairs' Summary: Expert Group on Black Carbon and Methane

Meeting 1 | Reykjavik, Iceland | January 27-28, 2016

1. Background

Rapid warming of the Arctic has profound consequences not only for the Arctic region but also worldwide. Loss of Arctic snow/ice cover and thawing of permafrost accelerate warming on a global basis, and melting of land-based ice contributes to sea-level rise. In addition, as the Arctic continues to warm at twice the global average rate, emerging science suggests that the reduced temperature differential between the Arctic and other areas contributes to destabilization of the jet stream in a way that intensifies weather extremes in mid-latitude regions. In short, what happens in the Arctic does not stay in the Arctic. To slow the pace of warming over the next two to three decades – globally and in the Arctic – reducing emissions of short-lived climate pollutants such as black carbon and methane is essential, along with action to reduce CO₂ emissions. Not only do these short-lived substances persist in the atmosphere for far shorter periods than CO₂, but they also trap far more heat on a per-unit basis. In addition, black carbon that falls on Arctic ice or snow reduces reflectivity and increases heat absorption, further accelerating melting and warming.

2. Framework Adoption

Prompted by the climate impacts of these emissions, in April 2015 the Ministers of the Arctic Council adopted a Framework for Enhanced Action to Reduce Black Carbon and Methane Emissions. Under the Framework, Arctic States agreed to submit biennial national reports on their existing and planned actions to reduce black carbon and methane, national inventories of these pollutants and projections of future emissions, where available.¹ The Framework establishes an Expert Group, to be chaired by the nation holding the Council chair for that two-year cycle.

The Expert Group is tasked with developing a “Summary of Progress and Recommendations” based on the national reports and other information as appropriate; it will be submitted through the Senior Arctic Officials to the Ministers at the 2017 Arctic Council ministerial. The Framework also provides that the Ministers will adopt an “ambitious, aspirational and quantitative collective goal on black carbon” at the 2017 ministerial, and tasks the Expert Group with proposing options for such a goal. Observer States were invited to join the Arctic States in implementing the Framework, and to participate in the Expert Group upon submission of a national report.

All Arctic States, seven Observer States (France, India, Italy, Republic of Korea, Japan, Poland, Spain, the United Kingdom), and the European Union submitted reports. Several countries' reports contain their first-ever national black carbon inventory.

3. Overview of First Meeting of the Expert Group

The Expert Group held its first meeting in Reykjavik, Iceland on January 27-28, 2016, chaired by the United States (as Council chair). Participants included representatives from all countries that submitted national reports (except India, which was not able to attend for last-minute logistical

¹ All reports and presentations from the Expert Group are available at the Arctic Council website.

reasons), the Arctic Athabaskan Council, the Arctic Monitoring and Assessment Program (AMAP), and the Arctic Contaminants Action Program (ACAP).

Policies and Practices

The Experts reviewed prior AMAP conclusions and shared lessons from national experiences, highlighting effective policies and practices and identifying sectors that could benefit from additional cooperation. The Group agreed to focus on five major anthropogenic emitting sectors, namely 1) mobile diesel sources (on and off-road vehicles); 2) residential biomass heating stoves; 3) oil and gas methane and flaring; 4) enteric fermentation (produced by livestock); and 5) solid waste. The Expert Group established teams to develop a “sector paper” for each of these sectors; the papers, which will summarize and where needed clarify the relevant information from the national reports, will help advance the discussion at the second meeting of the Expert Group. Each participant was asked to join at least one team. The sector papers will contain the following components:

- A summary of key policies and practices identified from national reports;
- Options for actions that could serve as the basis of the Expert Group’s recommendations for enhanced action; and
- A sectoral emissions profile (current and projected, drawing from work of the Emissions Inventory team, described below) for the sector across the Arctic States, and separately, across the participating Observer States.

National Emissions Inventories

A review of the emissions inventories showed that not all of the national black carbon inventories were comparable (different sub-sectors, metrics, base years, etc.), complicating data aggregation to create an emissions profile for the Arctic States. The Experts established a team to review the inventories, in consultation with each country, to facilitate comparability. In addition, because some participating countries are not now in a position to project future emissions, the Experts agreed to explore the use of credible models (such as IIASA) until national projections – which are the preferred data source – can be generated. In order to create a regional emissions profile, the Experts agreed to use an inventory base year of 2013 and generate projections for 2025.

Black Carbon Goal

Noting that the Framework provides that the collective aspirational black carbon goal is to be adopted by the Arctic States, the Experts invited participating Observer States to support the goal with additional ambition. To begin identifying options for the black carbon goal, the Group decided to use a range defined by projected emissions assuming current/ planned measures, and the maximum feasible reductions as determined by climate models such as IIASA. The Experts concluded that such a goal should be measured against a 2013 base year, as reported in national inventories, and should focus on 2025.

4. Next Steps

As much progress as possible will be made inter-sessionally, in order to minimize the need for in-person meetings. However, as a significant number of data gaps remain, and the Expert Group intends to identify options for a black carbon goal for consideration at the 2017 Arctic Council ministerial, it appears three meetings may be required. The next meeting of the Experts will be held in June in Helsinki, Finland, with a third meeting tentatively planned for November 2016.