

Arctic Monitoring and Assessment Programme (AMAP) Working Group Progress Report to Senior Arctic Officials in Yellowknife, 26-27 March 2014

1. Introduction

AMAP is undertaking work to fulfil its ongoing mandate and work plan for 2013-2015 approved by SAOs at the Ministerial meeting in Kiruna in 2013.

A major AMAP activity over the period to 2017 concerns work on the AMAP coordinated project 'Adaptation Actions for a Changing Arctic' (AACA-C). The AACA project will provide information that is essential for supporting decision-making and policy-development in the coming years to allow Arctic communities to adapt to rapid changes in climate and society that are already underway. Engagement with local stakeholders is an important part of the AACA implementation plan. Planned work to update parts of the AMAP state of the Arctic cryosphere assessment (SWIPA: Snow, water, ice and permafrost in the Arctic) will also contribute to the AACA.

A component of the SWIPA follow-up work to produce an updated synthesis of information on Arctic freshwater budgets has been initiated in collaboration with the International Arctic Science Committee (IASC), and the World Meteorological Organization's World Climate Research Programme/Climate and Ice programme (WMO, WCRP/CliC).

Work on scenario development, being performed in association with IIASA (International Institute for Applied Systems Analysis), will feed into both the AACA and planned SWIPA update work.

The AMAP update assessments of human health, radioactivity and persistent organic pollutants (POPs) in the Arctic are directly linked to the Canadian Chairmanship's priority on healthy, vital communities, and follow up on previous assessments produced under the auspices of the Council.

AMAP assessments are key products which track changes in Arctic environmental conditions and provide input to international agreements and regulation of global issues of concern for the Arctic. They are based on scientific monitoring and research including community based monitoring. All AMAP activities endeavour to incorporate traditional knowledge and involve Permanent Participants (PPs) in the work to the greatest extent possible, and also to facilitate communication of results to local communities. Permanent Participants representatives are leading parts of some ongoing AMAP assessments.

AMAP is starting to plan follow-up to its 2013 Arctic Ocean Acidification (AOA) assessment. An AOA follow-up scoping workshop will take place in May.

AMAP Secretariat representatives have participated in meetings of:

- the AC Task Force on Black Carbon and Methane (TFBCM), to secure coordination between work of the AMAP Expert Groups on Short-lived Climate Forcers (SLCFs) and work under the AC TFBCM, including coordination of outreach activities (see below);
- the AC Scientific Cooperation Task Force (SCTF), where a priority is to avoid overlap with SAON activities;
- meetings and workshops held by other Working Groups of the Arctic Council.

In addition, information exchange and liaison activities between AMAP and other AC groups are achieved through participation of national and PP representatives in different AC groups.

AMAP is preparing a response to the SAOs' request for input to 'a joint report on the Arctic Council's follow up of the EBM recommendations to be produced for the 2015 Ministerial.'

Work has been undertaken to complete the AC Tracking tool. At their recent meeting (February 2014) AMAP HoDs expressed concerns regarding how this information will be used and the comparability of information from different sources.

Work has been started to compile information on project costs using the AC project Costing Tool and AMAP has participated in the 'trial run' of the tool, organised by the AC Secretariat; continuation of this work is pending SAOs adoption of the revised costing tool.

2. Summary of progress on AMAP projects

AMAP has identified a number of projects in the AC tracking tool with associated deliverables over the period to 2017. Estimated costs associated with SAON project activities have been provided as a test use of the AC Costing Tool.

Adaptation Actions for a Changing Arctic – Part C

The AACA integration team (INT) held its first meeting in Washington DC in January and the project is moving forward, with leads now identified both for the overall project management and for the regional implementation teams (RITs) in the three AACA regions (Barents, Davis Strait/Baffin Bay, and Bering/Beaufort/Chukchi). Permanent Participants are represented in both the INT and the regional implementation teams and have an active role in different parts of the project. An AACA communication plan is under development; activities in this connection include preparing information to secure stakeholder engagement and cooperation with AC WGs and Permanent Participants. A short brochure to inform about the project is also under development. Representatives from the AACA INT are involved in the Arctic Adaptation Exchange Portal. A number of workshops are being organized, including socio-economic and climate scenario development workshops and regional AACA implementation workshops.

The AACA implementation plan is now being converted into an operational work plan. A call for nominations of experts to be involved in the AACA has been circulated and it is anticipated that the first coordinating/lead authors will be appointed during March.

All three RITs have started working. The Barents RIT arranged their first regional workshop in December 2013 and the other two RITs will arrange regional workshops during the summer. A draft of a common outline for regional integrated reports has been developed. Regional integrated reports are scheduled to be finalised early-2016 with the overall integrated report finalised late 2016.

A progress report on the AACA project will be available for the 2015 Ministerial meeting.

AMAP Assessments of Short-lived Climate Forcers (Black Carbon/Ozone and Methane)

The AMAP Expert Group on Black Carbon and Tropospheric Ozone and the AMAP Expert Group on Methane are preparing assessments that will support the work of the TFBCM.

AMAP products on SLCFs planned for delivery at the 2015 Ministerial include:

- Technical reports from the two AMAP expert groups; these peer-reviewed scientific documents will provide the basis for a non-technical synthesis report.

- A short, non-technical synthesis report on the combined results of the two AMAP assessments.
- Possible film(s) on the findings of the expert groups.

AMAP welcome cooperation with the TFBCM and the ACAP WG on possible further joint outreach products on AC work pertaining to SLCFs.

AMAP Update Assessment of Human Health in the Arctic

The AMAP Human Health Assessment Group is preparing an update assessment of human health in the Arctic including information on issues related to food security for indigenous and local peoples, risk communication, and climate change impacts on human health, as well as updated information on contaminant levels from human biomonitoring studies. ICC representatives are leading the production of the chapter concerned with risk communication.

The chapter of the assessment concerning the linkages between climate change and human health and contaminant issues will utilise the results of research conducted under AMAP-coordinated activities supported by EU-funding (including the *ArcRisk* research project) and a Nordic Council (NCM-)funded project on climate and contaminants.

The AMAP Human Health Assessment Group has prepared a contribution to the Stockholm Convention effectiveness and sufficiency review process (see below).

Results from the update assessment are expected to be available for the 2015 Ministerial meeting (see section 3 below).

AMAP Update Assessment of Radioactivity in the Arctic

The AMAP Radioactivity Expert Group is preparing an update assessment of radioactivity in the Arctic; AMAP intends to deliver the results of this assessment in 2015. The assessment will include new information on decommissioning and handling of radioactive waste (led by Norway); accidental releases of radioactivity, including assessment of the consequences (for the Arctic) of the Fukushima accident (led by Russia and Canada, with support from Denmark and Finland); trends in Arctic radioactive contamination (led by Canada, Finland and Denmark); and technologically-enhanced releases of naturally-occurring radionuclides (TENORM) associated with mining and oil and gas activities (led by Norway and Finland).

Results from the update assessment are expected to be available for the 2015 Ministerial meeting (see section 3 below).

AMAP Update Assessment of POPs in the Arctic

The AMAP Persistent Organic Pollutants (POPS) Expert Group is preparing a multi-part update assessment of POPs in the Arctic to be delivered between 2015 and 2017. The assessment will update information on trends in POPs in the environment, new POPs of concern that are appearing in the Arctic, results of new studies of biological effects of POPs, and also cover the possible impacts of climate change on transport and fate of POPs.

In accordance with the AC request that AMAP support the work under the Stockholm Convention, a technical report summarising results of AMAP monitoring of temporal trends of selected POPs in air, human bio-monitoring media and biota has been produced for use by the Stockholm Convention

groups that are preparing the next evaluation of the effectiveness and sufficiency of that Convention. This information will be further developed in the AMAP update assessments of POPs and human health that are currently under preparation.

Results of the evaluation of trends in POPs covered under the Stockholm Convention show encouraging downward trends that indicate that control measures introduced to date are reducing environmental levels (and human dietary exposure) to 'legacy' POPs. However, upward trends in some emerging POPs demonstrate the need for continued monitoring and assessment of new chemicals that are entering the global market.

Unmanned Aircraft Systems – Operating Guidelines and White Paper

The AMAP Expert Group on Unmanned Aircraft Systems (UAS) has presented an update to their original work plan. Under this they plan to deliver a 'UAS Operators Handbook' and an 'Arctic airspace access whitepaper' to the AMAP WG by 1 January 2015.

Results from this work are expected to be available for the 2015 Ministerial meeting (see section 3 below).

Sustaining Arctic Observing Networks (SAON)

A SAON implementation plan has been developed for implementation over the coming years. The plan will strengthen the coordination of the Tasks (projects) associated with SAON. One of these Tasks concerns a web-based inventory of Arctic projects and observational metadata, with a demonstration version of this available during Spring 2014. A SAON Board meeting will be held in Helsinki in April in connection with the Arctic Science Summit Week.

3. Deliverables for the next Ministerial

The primary AMAP deliverables planned for presentation at the Ministerial meeting in 2015 are:

- Technical and synthesis reports from AMAP assessments of short-lived climate forcers;
- The 'UAS Operators Handbook' and an 'Arctic airspace access whitepaper';
- A progress report on the AACA.

In addition, AMAP may present results from the update assessments of Human Health and Radioactivity in the Arctic, and partial results from the update assessments of POPs in the Arctic. Communication and outreach plans for these assessments are still under development. As of February 2014, work on these update assessments is on-track to deliver information and products for consideration by the AMAP WG by the end of 2014 (as reported for the AC Tracking Tool).

If prepared for the 2015 Ministerial meeting, it is likely that results of these update assessments will take the form of non-technical summaries of information for policy-makers and/or presentations of key findings at eventual outreach events organised in connection with the Ministerial meeting. These plans will be further developed when more is known about the planned outreach events. AMAP may also explore options for presenting these assessments at relevant scientific events.

In addition to the synthesis report and film being produced under the communications plan for the AMAP work on SLCFs, AMAP is investigating possibilities to produce other joint outreach products and coordinate outreach on the results of its assessments of SLCFs with the TFBCM and ACAP WG.

4. Working Group administration and next meeting(s)

AMAP is preparing a revised version of the AMAP Operating Guidelines for approval at the next AMAP WG meeting. The WG is also reviewing the way AMAP Expert Groups are organized and involved in assessment activities and other tasks that support AMAP work.

AMAP will undertake further work on the development of the AMAP Monitoring Guidelines (also taking into account their connectivity with the CBMP).

The next meeting of the AMAP WG will take place in Whitehorse, Canada on 15-18 September. The meeting will include a joint session with the PAME WG (who will meet in Whitehorse at the same time) to discuss issues of common interest.

5. Collaboration with other working groups / other organizations

AMAP is currently engaged in a number of international cooperations, including:

- Collaboration with IASC, the International Arctic Social Sciences Association (IASSA) and WMO on AACAC and SWIPA follow-up activities.
- Supporting the UNEP Stockholm Convention, through the preparation of Arctic data and information products for use by relevant groups involved in their effectiveness and sufficiency review, and their POPs Review Committee (POPROC).
- Development of a Siberian rivers project in association with the UN Global Environment Facility (GEF).

AMAP is considering strengthening the role of AMAP in the development and production of the Arctic Report Card. This is being followed-up through contacts between the AMAP Board, U.S. HoD and U.S. NOAA.

AMAP work and results have been presented at international conferences and events including:

- Two side events on SLCFs at the UNFCCC COP19 in Warsaw (November 2013)
- Arctic Frontiers Conference (Tromsø, January 2014), which included a large number of presentations related to AMAP's work in the field of human health and climate-contaminant linkages. AMAP participated in the organizing committee for this conference which also constituted the science-policy outreach conference for the ArcRisk project.
- 'In the Spirit of the Rovaniemi Process' International Conference (Rovaniemi, December 2013)

Major collaborations with other AC WG's include:

CAFF: AMAP has participated in the development of the CBMP; linkages to the CBMP will be taken into account in AMAP's ongoing work to update its Trends and Effects Monitoring Programme guidelines.

PAME: AMAP has reviewed the 3rd draft version of the Arctic Marine Strategy Plan (AMSP) and will provide comments to PAME by 1 April. AMAP will discuss linkages between the PAME Arctic Marine Tourism activity and the AACAC. AMAP will hold a joint meeting with PAME WG in September.

SDWG: AMAP continue to consult with SDWG on related activities in the fields of human health and food security.