

Arctic Council Working Groups: Report on their achievements in 2011–2013 and work plans for 2013–2015

1. ARCTIC CONTAMINANTS ACTION PROGRAM (ACAP)

Mandate

The objective of ACAP is to prevent adverse effects, reduce and ultimately eliminate Arctic environmental pollution. ACAP should complement existing arrangements, including legal arrangements, structures and mechanisms under the Arctic Council, such as the Regional plan of action for the protection of the Arctic marine environment from land-based activities; allow for actions on a wide range of pollution prevention issues and corresponding remediation measures; and include the identification of cooperative activities for implementation.

Response to Arctic Council priorities

ACAP has implemented the work plan for 2011–2013 addressing the appropriate elements in the 2011 Nuuk Declaration. Ministers endorsed the establishment of an ACAP short-lived climate forcer contaminants project steering group to undertake circumpolar demonstration projects to reduce black carbon and other emissions of short-lived climate forcers, and encouraged countries to reduce emissions and enhance the implementation of international conventions and protocols. Several practical emission reduction projects are currently under development in ACAP, in particular on the reduction of mercury emissions and short-lived climate forcers to support global actions. ACAP is also implementing projects on emission reduction measures of obsolete pesticides and dioxins and furans in the Arctic. These projects also provide capacity building to assist countries in implementing the Stockholm Convention on Persistent Organic Pollutants and the Minamata Convention on Mercury.

Main achievements in 2011–2013

The Short-Lived Climate Forcers and Contaminants Project Steering Group (SLCF PSG) officially started in March 2011 with a kick-off meeting on the margins of an ACAP meeting in Washington DC. The SLCFC PSG has two approved projects and several other project proposals in various stages of development and review. One project is on reduction of black carbon emissions from residential wood combustion led by Finland and Norway. The second project on the reduction of black carbon from diesel sources in the Russian Arctic Program, was launched by the United States Environmental

Protection Agency (EPA). Several SLCP projects are under preparation under the Nordic Environment Finance Corporation (NEFCO), subject to project criteria and owner/stakeholder engagement. The projects will be prepared for relevant financing. Sweden has established a SLCF Trust Fund with NEFCO, which is expected to fund projects that reduce SLCF emissions, including black carbon. Projects identified by ACAP projects steering group on SLCF will be prioritised.

The US EPA has held the workshop on diesel emissions, pollution mitigation, and clean and alternative technologies in the Arctic in Moscow on two consecutive days (6 and 7 October 2011). The technical steering group for the project has been established and held its first meeting in January 2013, and the emission inventory methodology is being developed. EPA has made available USD 1 million to the fund manager of the Project Support Instrument (PSI), NEFCO, for diesel black carbon-related projects in Russia.

The ACAP activities on mercury were revitalised at a meeting of mercury experts in March 2011. Senior Arctic Officials approved the Terms of Reference for ACAP mercury activities. In 2011–2013 the ACAP mercury experts have continued to share information among members about their respective activities related to mercury and ongoing work under the UNEP Global Mercury Partnership. There are currently five mercury reduction project ideas at various stages of development to become ACAP projects, including: a non-ferrous metals/zinc smelter mercury reduction project; a phase II coal-fired power plant sorbent technology project; a mercury reduction project in industrial gold mining; mercury management information gathering and review in artisanal and small scale gold mining; and coordination on mercury-containing waste issues with the ACAP Integrated Hazardous Waste Management PSG.

The ACAP project on dioxins and furans examined during the 2011–2012 phase III includes a prototype demonstration of emission reduction measures at one of the potential objects identified in phase II of the project, the Vorkutinskiy Cement Plant. The PSG prepared a Terms of Reference for a feasibility study, funded by NEFCO and completed in 2012, recommending implementation of emission reduction actions combined with already planned reconstructions of the cement plant. ACAP has published technical reports to contribute to dioxin/furan emission reduction and implementation of the Stockholm Convention in Russia.

The ACAP project on obsolete pesticides in Northern Russia has completed its activities on inventory and safe storage of obsolete pesticides waste in twelve Russian regions, directly

impacting the Arctic. ACAP has worked on this problem since 2001 and by 2012 approximately 7,000 tons of obsolete pesticides were collected and placed under reasonable storage conditions, vastly reducing the risk of contaminants spreading to the environment. The final report, including lessons learned, will be finalised by the Arctic Council in 2013. In 2011–2012 pesticides were repackaged in Krasnoyarsk Krai and Kamchatka. The project steering group also closely followed initiatives to develop environmentally sound pesticide destruction capacity in Russia, prepared an outreach fact sheet in Russian and a road map for the authorities to undertake similar activities in other regions.

Implementation and follow-up

ACAP will identify solutions to reduce sources and emissions of contaminants in the Arctic, demonstrate their effectiveness through demonstration projects and present recommendations for stakeholders to reduce contaminants in the Arctic. ACAP's experience in obsolete pesticides management has been shared through a Russian consultant in non-Arctic regions (Rostov, Moldova, Kyrgyzstan, Armenia and Kazakhstan). ACAP has also established a group to address the contamination of the indigenous communities in the Arctic. ACAP has published technical reports on its website as part of efforts to enhance transparency and knowledge-sharing.

Work plan 2013–2015

ACAP addresses Arctic pollution sources, as identified by AMAP. It acts as a support mechanism to encourage national actions to reduce emissions and other releases of pollutants in the Arctic. Cooperative actions make an important and significant contribution to the overall international effort to reduce environmental damage on a global level. ACAP will develop concrete project proposals according to this mandate for approval as Arctic Council projects, taking into account the needs of indigenous populations in the Arctic. The projects identified in this work plan are those that have already been approved by ACAP as well as projects that are under development for future ACAP review and possible approval. Additional project proposals may be developed within the scope of this work plan. Implementation of the projects is subject to the availability of funds. ACAP advances approved projects and funding, including from the PSI and other funding sources.

List of individual projects and activities

ACAP Short-Lived Climate Forcers and Contaminants: A project on reductions of SLCF and contaminants/pollutants affecting the Arctic region will be undertaken. The range of projects will include problem scoping, and source identification via emission inventories, and analysis of instruments, measures and strategies to reduce emissions. Projects may address black carbon

reduction from diesel emissions, wood stoves, wildfires, agricultural burning, industry, heating and power sectors, and build on current work by Arctic partners. A report to ministers is anticipated in 2015.

Diesel black carbon reductions in the Arctic 2011–2015: The project aims to assess primary sources of black carbon in the Russian Arctic; develop a targeted baseline emission inventory for black carbon from diesel sources in key areas; implement targeted, on-the-ground demonstration projects for reducing black carbon from diesel; and establish policy recommendations and financing options for reducing black carbon diesel sources. Co-leads are the United States, Russia and NEFCO.

Reduction of black carbon emissions from residential wood combustion in the Arctic: The objective is to contribute to reducing emissions of black carbon from residential wood combustion in the Arctic for which funds have already been allocated. The project will compile information on black carbon emissions along with abatement instruments and measures. Phase 1: Desk study on emissions and measures for reduction of black carbon from residential wood combustion and development of recommendations. Phase 2: Undertake selected pilot projects to demonstrate the effect of the recommendations. Co-leads are Norway and Finland.

SLCP projects: The projects will aim to reduce SLCP emissions in the Northern regions of Russia. Most of them are expected to cover energy efficiency and cleaner production, fuel switching, management of waste, including end-of-life equipment, and replacement or upgrading of diesel-powered stations in off-grid locations. The projects will seek cooperation with the Swedish NEFCO SLCP Trust Fund. Co-leads are Sweden, Norway, Russia and NEFCO.

ACAP Mercury: The PSG will undertake projects to reduce mercury emissions affecting the Arctic region. The projects are based on the Terms of Reference of the Mercury PSG adopted by Senior Arctic Officials in 2012.

Non-ferrous/Zinc Smelter Mercury Reduction: The project aims to appropriately identify, further develop and apply pollution reduction technologies to a selected pilot non-ferrous/zinc smelter including related monitoring. Co-leads: the United States, Russia and NEFCO.

Phase II Coal-Fired Power Plant Sorbent Technology: This project demonstrates the mercury emission removal efficiencies of standard activated carbon and brominated carbon injection when used at

power plants equipped with an electrostatic precipitator. The project also investigates the stability of the ash and sorbent residues and leaching potential of metals (mercury, selenium and arsenic) collected in the ash. The PSG will develop a proposal for a project focusing on disseminating and replicating results of this demonstration. The PSG may also develop project proposals for approval on mercury management in industrial gold mining, information gathering in artisanal and small-scale gold mining, and coordination on mercury-containing waste issues with the Integrated Hazardous Waste Management Strategy PSG. Co-leads are the United States and Russia.

Environmentally sound management of obsolete pesticides in Russia: The PSG aims to reduce releases from obsolete pesticides storages affecting the Arctic region. The PSG may also develop a demonstration project on remediation of Persistent Organic Pollutants (POPs) and mercury contaminated soil in a region directly impacting the Arctic. Project proposals will be developed and presented to ACAP for approval.

Phase III: Demonstration of environmentally sound destruction of obsolete pesticides: The PSG will work with Russian experts and the Ministry of Natural Resources and Ecology to assess technologies for environmentally sound destruction of obsolete pesticides in Russia, when such capacity becomes available. Pending the approval of technologies, the project will demonstrate destruction of 100 tons of obsolete pesticides in the Arctic in an environmentally sound manner. The project will seek synergies with the Polychlorinated Biphenyl (PCB) destruction project for management of PCBs in transformers in Russia. A report on the progress and possible results from the assessment and demonstration project is anticipated at the Arctic Council meeting in 2015. Co-leads are Finland and Russia.

ACAP dioxin/furan: The PSG will undertake projects to reduce dioxin and furan emissions affecting the Arctic region. The PSG will continue to cooperate with Russian industries and promote implementation of control technologies for reduction and elimination of dioxin and furan releases at point sources including pulp and paper mills, metal industries, cement kilns and waste incineration plants in the Russian Arctic. Coordination with the work on the Barents environmental hot spots is important as well as with Russia's activities aiming at adaptation to the requirements under relevant international conventions. A report summarising the results from the work in 2013–2015 is anticipated for the Arctic Council Ministerial meeting in 2015.

Reduction/Elimination of Emissions of Dioxins and Furans in Russia with focus on the Arctic and Northern regions – phase III: Vorkutinskiy cement plant reduction of dioxins and dust emissions and a Cleaner Production training program. PSG will also consider broadening the inventory for further dioxin/furan sources in the Russian Arctic and continue to identify other pilots for phase III and also consider additional phase II activities. Phase III demonstration projects can be considered and implemented as part of the Integrated Hazardous Waste Management Strategy. Sweden leads the project.

Integrated Hazardous Waste Management Strategy (IHWMS): The PSG aims to facilitate the development of Regional Integrated Hazardous Waste Management Strategies for Northern Regions in Russia to reduce the negative impact of hazardous wastes on the environment. The work will be based on the Terms of Reference of IHWMS PSG adopted by Senior Arctic Officials in 2010. A report to the Arctic Council Ministerial meeting is anticipated in 2015.

Regional integrated hazardous waste management strategy pilot: Develop an IHWMS focusing on the 1–2 Northern pilot regions of Russia that will address disposition and destruction of collected contaminants, mercury-containing wastes, brominated flame retardants containing waste, POPs including PCBs, dioxins and furans, perfluorinated chemicals, obsolete pesticides, etc. Russia leads the project.

Indigenous Peoples Contaminants Action Program (IPCAP): The PSG aims to identify important local sources of contamination in indigenous communities and propose projects to reduce indigenous communities' exposure to contaminants in remote areas of the Arctic. The work is based on the Terms of Reference of IPCAP PSG adopted by Senior Arctic Officials in 2010.

Baseline study on contaminant issues in indigenous communities to identify priorities: In the first phase, the project will conduct a baseline study to identify the most important sources of contamination in selected indigenous communities and facilitate projects to reduce exposure to contaminants. Based on the results, further pilot project proposals will be developed. Co-leads are Russia, Sweden and Aleut International Association (AIA).

PCB: The PSG will undertake projects to reduce emissions of PCB affecting the Arctic region.

Phase III: Demonstration of management and destruction of 250 tons of PCB in transformers: This project is currently awaiting permits. The PCB project work plan and associated tasks will be updated once the PSI is operational. It is anticipated that the PCB project will strive to liaise with IHWMS and the demonstration project on obsolete pesticide to achieve synergies. Co-leads are Russia, the United States and NEFCO.

Potential new work areas: ACAP will consider possibilities to contribute to the follow-up of the AMAP Oil and Gas Assessment Recommendations focusing on filling information gaps regarding contamination caused by oil and gas activities on land and prevention in Arctic waters. Relevant issues for ACAP could include work on releases from oil and gas operations, data on waste disposal and contamination, as well as information on effective technologies and methods for dealing with large spills on land (remediation). The importance of preventing the contamination caused by mining activities is increasing in the Arctic regions. Pollution prevention in the use of chemicals in mining could be relevant for ACAP.

Cross-cutting projects and activities

ACAP will cooperate with other working groups, in particular PAME and AMAP, to exchange information on contamination in the Arctic and progress in making reductions. ACAP will also contribute to Adaptation Actions for a Changing Arctic (AACAA) where feasible under its mandate. ACAP will continue cooperation with NEFCO to finance and facilitate implementation of ACAP projects and mobilise the PSI.

Support for international activities

The work of ACAP has connections to several multilateral environmental agreements, and other international processes and activities:

- SLCF: the Arctic Black Carbon Initiative, Global Methane Initiative, Climate and Clean Air Coalition and the Montreal Protocol.
- Mercury: Contribute to the objectives of the Minamata Convention and coordinate with related work underway in the UNEP Global Mercury Partnership.
- POPs: Contribute to the implementation of international Conventions (Stockholm, Basel, UNECE/CLRTAP) by continuing demonstrating practical solutions to reduce releases of POPs in the environment.
- Continue cooperation with Permanent Participants.
- Continue cooperation with other working groups and observers, notably the Barents Euro-Arctic

Council and NEFCO to address hot spots in the Arctic.

Communication and outreach

ACAP will enhance outreach and promote solutions to reduce the contamination of the Arctic environment demonstrated in ACAP projects, among Arctic States, and relevant international organisations and financial institutions. ACAP will implement the Arctic Council Communications and Outreach Strategy adopted in 2012 and regularly update its website.

Administration

ACAP is chaired by Finland and Sweden is vice-chair (2012–2014). Currently the chairmanship country also provides the secretariat services. ACAP has requested secretariat support from the Arctic Council Secretariat and provided a list of functions that could be provided. The meetings hosted on a rotating basis between the active states. The administration costs of ACAP consist of salary and travel costs of the chair and Secretariat. The PSGs hold their own meetings as necessary.

