

# Senior Arctic Officials' Report to Ministers 2021

[COVER PAGE WITH PHOTOGRAPH]

final draft

12<sup>th</sup> Arctic Council Ministerial meeting

Reykjavik, Iceland

20 May 2021

## Senior Arctic Officials' Report to Ministers 2021

[PLACE HOLDER]

This document exists in two versions:

ISBN XXX (digital, PDF)

ISBN (printed, A4)

© Arctic Council Secretariat (ACS), 2021

This document is licensed under the Creative Commons Attribution-NonCommercial 4.0 International License. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0>

Suggested citation

Arctic Council (2021, 20 May). Senior Arctic Officials' Report to Ministers 2021. (XXX pp.) Available from: [OAR].

Authors

Arctic Council

Published by

Arctic Council Secretariat

This document is available as an electronic document from the Arctic Council's Open Access Repository (OAR): [www.oaarchive.arctic-council.org](http://www.oaarchive.arctic-council.org).

Cover photograph

Image: XXX / XXX

final draft



ARCTIC COUNCIL

SAO Report to Ministers 2021  
Reykjavik, Iceland | FINAL DRAFT | 14 May 2021

## Senior Arctic Officials' Report to Ministers

Reykjavik, Iceland | 20 May 2021

FINAL DRAFT

final draft



## Contents

PART I   Executive Summary .....	3
Introduction from the Chair of the Senior Arctic Officials .....	4
Iceland's Chairmanship of the Arctic Council .....	5
Senior Arctic Officials' Marine Mechanism .....	8
Combatting marine litter in the Arctic marine environment.....	9
Connectivity coordination .....	11
Priorities of the Russian Federation's Chairmanship of the Arctic Council (2021-2023).....	12
PART II   Arctic Council Working Groups and Expert Group.....	14
Arctic Council subsidiary bodies: working together to advance common priorities.....	15
Sustainable Development Working Group (SDWG).....	18
Protection of the Arctic Marine Environment (PAME).....	34
Emergency Prevention, Preparedness and Response (EPPR) .....	63
Conservation of the Arctic Flora and Fauna (CAFF) .....	78
Arctic Monitoring and Assessment Programme (AMAP).....	96
Arctic Contaminants Action Program (ACAP) .....	106
Expert Group on Black Carbon and Methane (EGBCM).....	125
PART III   Meaningful Engagement with Arctic Council Observers .....	130
PART IV   Arctic Council Secretariat.....	134
ACS work plan and budgets for 2022-2023 .....	135
IPS work plan and budgets for 2022-2023 .....	148
ACS budgets for 2022-2023 .....	154
IPS budgets for 2022-2023 .....	158
PART V   Acronyms and abbreviations.....	160
PART VI   Annexes .....	169
ANNEX I.....	170

Arctic Council Communications Strategy (2020) .....	170
ANNEX II .....	171
Arctic Council – Arctic Coast Guard Forum Statement for Cooperation.....	171
ANNEX III .....	173
AMAROK: Arctic Council Tracker (2021 update) .....	173
ANNEX IV .....	174
Continuation of the SAO Marine Mechanism: Chairmanship’s concept note .....	174

final draft

## PART I | EXECUTIVE SUMMARY

final draft

# Introduction from the Chair of the Senior Arctic Officials

As Iceland took over the Arctic Council Chairmanship from Finland in 2019, after their successful two-year term, none of us could have imagined what the future had in store for us in the Chairmanship seat, let alone for the rest of the world.

It is impossible to look back over our Chairmanship without mentioning the Covid-19 pandemic. It brought the world to a standstill and inevitably affected the Arctic Council's work. However, we managed to adapt quickly and reorganize various meetings and events to fit an online format. Before the Icelandic Chairmanship, the Senior Arctic Officials' (SAOs) meetings had never been held online. Now, we have four executive and two plenary meetings under our belt in a fully online format. Not to mention the countless virtual events and consultations, hosted to advance the Council's work. Despite the challenges posed by the pandemic, we can be proud of what we have achieved, with most of the Working Group and Expert Group projects in the 2019-2021 work plan on track.

The Arctic Council's core message of sustainability rings true with us Icelanders, who have through the ages depended on nature for survival in the harsh Arctic environment. Our Chairmanship priorities reflected the need to balance the three pillars of sustainability, as we focused on the Arctic Marine Environment, Climate and Green Energy Solutions, People and Communities of the Arctic and a Stronger Arctic Council.

We launched a new initiative, the SAO Marine Mechanism, bringing experts in the field together with the Senior Arctic Officials to discuss Arctic marine matters, with the aim of strengthening circumpolar marine stewardship. We hosted the first International Symposium on Plastics in the Arctic and Sub-Arctic Region, where leading experts and scientist came together virtually. The Chairmanship also initiated the preparation of a Briefing Document on Covid-19 for the SAOs under the auspices of the Sustainable Development Working Group, made conscious efforts to increase meaningful engagement with Observers and introduced a way to strengthen the format of the Observer review process.

The past year has truly demonstrated the resilience and fortitude of the Arctic Council. SAOs, Permanent Participants, Working Groups, and Expert Groups have all worked tirelessly to fulfil the goals we set out with two years ago. I would like to thank the staff of the Arctic Council Secretariat (ACS), the Indigenous Peoples' Secretariat, and the Working Group secretariats and, in particular, I want to commend Nina Buvang Vaaja for her excellent work, as she prepares to leave the role of ACS Director later this year, after serving the Arctic Council for well over a decade. This Senior Arctic Officials' Report to Ministers bears witness to the Arctic Council family's dedication and commitment to securing a prosperous future in our region.



Einar Gunnarsson  
**Chair of the Senior Arctic Officials**

# Iceland's Chairmanship of the Arctic Council

## *TOGETHER TOWARDS A SUSTAINABLE ARCTIC*

The theme of Iceland's Arctic Council Chairmanship program for 2019-2021, *Together towards a Sustainable Arctic*, reflects a commitment to the principle of sustainable development and refers to the necessity of close cooperation between the states and peoples of the region and beyond. The Icelandic Chairmanship highlighted four priorities: the Arctic Marine Environment, Climate and Green Energy Solutions, People and Communities of the Arctic, and a Stronger Arctic Council.

## PANDEMIC AND PROGRESS

Nearly halfway through Iceland's Chairmanship, the Covid-19 pandemic hit the world. While meetings and events were at first postponed, it gradually became clear that the pandemic would complicate travel and physical gatherings for an unforeseeable time. The Arctic Council quickly adapted to a new virtual working mode. Iceland became the first Chairmanship to host a Senior Arctic Officials (SAOs) meeting in an online format, as well as to launch new initiatives such as the SAOs' Marine Mechanism (SMM) online, and successfully moved an entire symposium on plastic pollution to an online format. Despite the challenges brought about by the pandemic, Iceland was able to advance its Chairmanship priorities and the Council's work continued without major delays or cancellations.

## OCEAN OF OPPORTUNITIES

The Arctic marine environment was a natural priority for Iceland, an island state surrounded by ocean. During its Chairmanship, Iceland highlighted the issue of plastic pollution in Arctic waters, designating a Special Coordinator on Plastics and Marine Litter, as well as hosting the first International Symposium on Plastics in the Arctic and Sub-Arctic Region. A Regional Action Plan to reduce marine litter has also been developed. A project focusing on the Blue Bioeconomy was initiated, promoting innovative methods to improve the utilization of living marine resources. The Icelandic Meteorological Office initiated a project to assess and evaluate the inflow of fresh water to the Arctic Ocean and co-hosted a workshop with the World Meteorological Organization (WMO) on Arctic Earth System Modeling. As a follow-up, the Sustaining Arctic Observing Network (SAON), World Meteorological Organization (WMO) and International Arctic Science Committee (IASC) have joined forces to advance an integrated pan-Arctic observation and prediction system for addressing climate, cryospheric, oceanographic, and hydrological change, including freshwater flow to the Arctic Ocean, as well as natural-hazard risk mitigation. The Working Groups (WGs) on Emergency Prevention, Preparedness and Response (EPPR) and on Protection of the Arctic Marine Environment (PAME) worked on enhancing emergency responses in Arctic waters, and the web-based Guideline for Arctic Marine Risk Assessment was introduced, to name just a few of the marine related projects and initiatives. Last but not least, the Icelandic Chairmanship launched the SMM, providing a platform for the Arctic Council to enhance cooperation and coordination on marine issues. The four-week webinar series brought together SAOs, marine experts and representatives of

Indigenous Peoples and Arctic Council Observers to discuss the increasing pressures on the Arctic marine ecosystem and coastal communities in the circumpolar North.

## AIR, ENERGY, AND ASHES

During the Icelandic Chairmanship, the Arctic Council continued observing and assessing climate impacts on Arctic marine, freshwater and terrestrial ecosystems. The Council also built on the work of its Expert Group on Black Carbon and Methane (EGBCM) to identify opportunities to reduce emissions of short-lived climate pollutants (SLCPs). The Arctic Monitoring and Assessment Program (AMAP) worked on assessments and reports such as a new Arctic Climate Change Update. The Council has further encouraged the development and application of practical green energy solutions in the Arctic region, to enable communities to reduce emissions and improve air quality. Under the leadership of the Sustainable Development Working Group (SDWG), the “Zero Arctic” project focused on carbon neutral construction in the Arctic.

## HOME IMPROVEMENTS

The Arctic is home to over four million inhabitants who already face challenges resulting from the impacts of climate change. The Icelandic Chairmanship promoted actions to strengthen resilience and facilitate adaptation. It also looked at new economic opportunities that can contribute to growth and prosperity of Arctic communities. There is still the need to improve connectivity in the Arctic and a Special Coordinator on Connectivity worked with the Chairmanship to advance this issue. Iceland continued to lead the Gender Equality in the Arctic (GEA) project through its third phase. Under the auspices of the SDWG, a Briefing Document on Covid-19 for SAOs was prepared in record time, gathering information on how the pandemic impacted Arctic communities and economies. The conversation on Arctic resilience remained on the agenda, as the Icelandic Chairmanship hosted the second Arctic Resilience Framework Forum online, co-organized by the SDWG and the Arctic Initiative at the Harvard Kennedy School’s Belfer Center. Iceland was also keen to focus on youth engagement in the Arctic. During the Chairmanship, the Permanent Participants’ Youth Network was established, while the Council’s WGs, such as SDWG and CAFF, continued to engage youth in their projects and to promote career development through their fellowship programs.

## FAMILY TIES

Throughout its Chairmanship, Iceland has focused on strengthening the Arctic Council and enhancing constructive cooperation. Close consultations between the Arctic States and the Permanent Participants continued. Iceland emphasized the importance of the Observers to the Council by offering them an active role at the SMM and the Plastics Symposium, in addition to organizing a dedicated online Observer event on Arctic Governance and initiating individual virtual meetings with Observers under review. The Chairmanship also focused on strengthening the cooperation with the Arctic Economic Council with a new Memorandum of Understanding aimed at promoting responsible economic development in the Arctic and hosted the first joint meeting between the Arctic Council and the Arctic Economic Council. Furthermore, under the Icelandic Chairmanship, the Arctic Council

issued a statement with the Arctic Coast Guard Forum aimed at confirming cooperation on safe, sustainable, and responsible maritime activity in the Arctic.

final draft

## Senior Arctic Officials' Marine Mechanism

The Task Force on Arctic Marine Cooperation (TFAMC II) recommended the creation of a process with the objective to ensure that senior marine managers would be involved in a dialogue with Senior Arctic Officials (SAOs) on Arctic marine stewardship. At the 2019 Rovaniemi Ministerial meeting, SAOs were tasked with implementing the Senior Arctic Officials Marine Mechanism (SMM) to improve coordination of, and strategic guidance on, Arctic marine issues. The format originally decided upon consisted of dedicated thematic sessions within the framework of the SAO plenary meetings. This would give SAOs, Permanent Participants (PPs), Working Groups (WGs), and Observers the opportunity to call attention to ocean related matters they believed to be of particular relevance for the Arctic Council.

The first meeting was planned as a two day in-person meeting in conjunction with the SAO plenary meeting to be held in Akureyri in March 2020. However, due to travel restrictions caused by Covid-19, the meeting was postponed. The Icelandic Chairmanship therefore had to reschedule the SMM event and ultimately moved it online. The virtual format, held between 29 September and 29 October 2020, consisted of two plenary sessions to open, and conclude the SMM process, and four thematic sessions that covered: the Arctic Marine Strategic Plan; Sustainable Arctic Shipping; Regional Coordination of Marine Issues and Global Commitments; and lastly Ecosystem Based Management.

The SMM process highlighted the Arctic Council's substantial work, information and knowledge on the Arctic marine environment, as well as identifying priority areas where the Council has influence and regional competence, while also bringing to light where more work is needed. Views expressed about the virtual format of the SMM were predominantly positive. It was said to be innovative, practical, and inclusive for all participants. All involved furthermore expressed general satisfaction with the SMM series, as well as voicing an interest in seeing the mechanism continue and further develop under incoming and future Chairmanships. Based on this experience, the Icelandic Chairmanship drafted and proposed a way forward for the SMM, taking full account of the TFAMC II recommendations.

The Icelandic Chairmanship's concept paper proposed that the SMM process will continue as a recurrent Arctic Council forum, organized through annual meetings during a two-year Chairmanship cycle, initiated by the incoming Russian Chairmanship, and that it forms a two-tier sequential process. The objective of the former meeting should be to comprise an expert discussion on emerging and challenging Arctic marine issues that require the Arctic Council's attention. The latter meeting should aim to provide a thematic dialogue between marine experts, SAOs and PPs on priority marine issues identified at the former meeting. The process should be coordinated through the Arctic Council Secretariat, which should also serve as the secretariat for the SMM. The Chairmanship proposed that the outcomes of the SMM process should be included in the SAO Report to Ministers and be reported to Ministerial meetings, as was recommended originally by the TFAMC II.

The SMM concept note, agendas, video and power point presentations, and a SMM summary are archived on the [Arctic Council's Open Access Repository](#).

# Combating marine litter in the Arctic marine environment

The issue of marine litter and plastic pollution in the Arctic from different sources has become a major concern and, as such, has been a focus area of the Chairmanship, with plastic waste being predominant in marine litter.<sup>1</sup> Plastic litter is found everywhere in our environment and in the world's oceans today. The Arctic Ocean is not immune to this alarming trend: ocean currents, streams, waves, and wind transport marine litter across the seas to the Arctic, with consequences on inhabitants and the environment alike. Solid waste and wastewater from Arctic communities, and larger ones up-river, also contribute to the problem.<sup>2</sup> Therefore, the Chairmanship's efforts over the last two years have aimed to draw attention to the threat of marine litter and plastic in Arctic waters and support new actions to effectively reduce plastic contamination in the Arctic marine environment.

## COORDINATION OF ARCTIC COUNCIL INITIATIVES

Having recognized the need for actions to combat marine litter in the Arctic, Iceland designated Magnús Jóhannesson, former director of the Arctic Council Secretariat and former Permanent Secretary of the Icelandic Ministry of the Environment and Natural Resources, as the Chairmanship's Special Coordinator on Plastics and Marine Litter for the Arctic Council. His role has been to move Arctic plastic pollution and marine litter to the forefront of environmental policy discussions in the region, strive to increase the level of engagement by Observers, and help enhance the Arctic Council's leadership role on the issue based on the best available knowledge it can produce and share.

Coordination and collaboration between the Arctic Council's different entities has been vital for achieving the Chairmanship's initiative. The Coordinator has therefore acted as a clearinghouse between the Council's subsidiary bodies – and Observers –, and regularly reported to SAOs and PPs to ensure that the work undertaken, and political interest, coincide. Activities on marine litter and plastics pollution during the last two years, as authorized by the 2019 SAO Report to Ministers, comprised of six projects in five WGs:

- Addressing solid waste and marine debris management in small communities (both ACAP and SDWG);
- Managing solid waste on the Kola Peninsula in Russia (ACAP);
- Understanding and monitoring the impacts of plastics in seabirds in the Arctic (CAFF);

---

<sup>1</sup> See for example PAME's [2019 Desktop Study on Marine Litter](#), which had four objectives: i) Evaluate scope of marine litter in Arctic and its impacts on marine environment; ii) Enhance knowledge/awareness of marine litter in Arctic; iii) Enhance cooperation by the eight Arctic states to reduce negative impacts of marine litter on Arctic marine environment; and, iv) Contribute to prevention and/or reduction of marine litter pollution in Arctic, and its impact on marine organisms, habitats, public health and safety, reduce socioeconomic costs litter causes.

<sup>2</sup> See "Plastics in the Arctic. Back in Sight, Back in Mind" (2021, May). *Pathways: the Arctic Council Magazine* (pp. 89-93). Arctic Council Secretariat. Tromsø, Norway. Available online at: <https://arctic-council.org/en/explore/topics/ocean/plastics/>.

- Developing a monitoring program framework for litter and microplastics in the Arctic region (AMAP); and,
- Establishing the Arctic Council's first, overarching, Regional Action Plan on Marine Litter (ML-RAP) in the Arctic (PAME).

The Coordinator has regularly met and discussed with the WG Chairs and executive secretaries on possible overlaps and gaps in their work. He has also engaged in dialogue with the Arctic Economic Council, Observers and relevant regional and industry representatives, such as the fishing and tourism sectors, regarding best practices and raising awareness and creating support for enhanced marine litter management in the Arctic. Closely following the work of external bodies has been of great importance for the Chairmanship, since a significant amount of plastic litter is generated outside the Arctic region and collaboration with them is key to avoid duplication of actions and policy efforts.

## DISSEMINATION OF KNOWLEDGE FOR POLICY-MAKING

Knowledge on plastic pollution in the Arctic is essential for promoting effective actions. Iceland has put in efforts to gather and disseminate available knowledge on plastics in the Arctic marine environment during its Chairmanship. In October 2019, the Chairmanship co-hosted a workshop with the Belfer Center's Arctic Initiative and the Wilson Center's Polar Institute at Harvard Kennedy School entitled, *Policy and Action on Plastic in the Arctic Ocean*. The meeting gathered thought leaders, stakeholders and various experts from Arctic and non-Arctic States to discuss the Arctic Council's efforts to address Arctic marine pollution. The event paved the way for the first [International Symposium on Plastics in the Arctic and Sub-Arctic Region](#), held online in March 2021 and co-hosted by the Government of Iceland and the Nordic Council of Ministers, in collaboration with 11 partners. Originally scheduled to take place in-person in Reykjavik in April 2020, the event was delayed and moved online due to the Covid-19 pandemic. Close to 100 scientific studies were presented along with numerous panel discussions with scientists and marine experts from the Arctic and around the world. The event shed light on important sources of plastic pollution, certain impacts the pollution has in the Arctic, and the importance of regular, harmonized monitoring and international collaboration to increase overall knowledge on the issue in the Arctic. One of the main messages from the Symposium was the urgency for Arctic States and others to take action to reduce plastic pollution.

## ADOPTION OF THE FIRST ACTION PLAN ON MARINE LITTER IN THE ARCTIC

A cornerstone achievement during the Icelandic Chairmanship has been the drafting of the first Regional Action Plan on Marine Litter in the Arctic (ML-RAP). Lead by PAME, in close collaboration with AMAP and other WGs, PPs and Observers, the comprehensive framework includes 59 Strategic Actions in eight different sections to: reduce marine litter inputs; improve onshore waste and wastewater management; manage sustainable materials in the Arctic; clean Arctic coasts; strengthen monitoring and research; conduct outreach; and, advance international cooperation. Implementation of the action plan will soon begin and will rely on a mix of national actions and Arctic Council projects in cooperation with Indigenous Peoples and other stakeholders, as relevant.

## Connectivity coordination

During the Icelandic Chairmanship, the Arctic Council mandated a Connectivity Coordinator position to facilitate coordination with the Arctic Economic Council (AEC), with the goal to improve the outcome of this work and enhance connectivity for Arctic communities. Mark J. Murray, Arctic Affairs Officer at the U.S. Department of State was appointed to the role of the Connectivity Coordinator. In that capacity, he engaged with the AEC's Connectivity Working Group, joining in an advisory role for a new report on connectivity infrastructure in the Arctic presented at the annual AEC meeting on 20 May 2021. The report will be notable for including a useful tool to help stakeholders understand the various investment and planning decisions that can impact the long-term technical and economic success of projects in the Arctic, and will assist policymakers, local leaders, and other decision makers in understanding the benefits and considerations of the various types of investment based on the project, location, scientific knowledge, Indigenous and community inputs, and funding sources. The Connectivity Coordinator was able to have the draft shared with the connectivity representatives of the Arctic Council for their feedback, which proved important for providing a better circumpolar perspective for the final version. This collaboration was a tangible use of the MoU between the Arctic Council and the Arctic Economic Council, that was signed on the margins of the Rovaniemi Ministerial in 2019.

The mandate of the Connectivity Coordinator ends with the Icelandic Chairmanship, but we hope that the dialogue that took place on this forward-looking report may continue, as well as the constructive collaboration between the two councils on connectivity issues and in other areas to achieve sustainable economic development in the Arctic.

# Priorities of the Russian Federation's Chairmanship of the Arctic Council (2021-2023)

A cross-cutting priority of the Russian Chairmanship of the Arctic Council (2021-2023) will be “Responsible Governance for a Sustainable Arctic”, through promoting collective approaches to the sustainable development of the Arctic in a balanced way – environmentally, socially and economically –, enhancing synergy and cooperation and coordination with other regional structures, as well as the implementation of the Arctic Council's Strategic Plan (2021-2030), while respecting international law.

The comprehensive program of the Russian Chairmanship involves multilateral cooperation in the following priority areas:

## 1. PEOPLE OF THE ARCTIC, INCLUDING INDIGENOUS PEOPLES

The sustainable development of the Arctic is largely determined by the quality of human capital. The Russian Chairmanship's main focus will be given to enhancing sustainability, resilience and viability of Arctic communities, climate change adaptation measures, improving the well-being, health, education, quality of life of Arctic inhabitants, as well as ensuring sustainable socio-economic development in the region.

Strengthening the important role of the Sustainable Development Working Group (SDWG) of the Arctic Council, the Russian Chairmanship will be focusing on human health and understanding and learning from the impact of the Covid-19 pandemic in the Arctic, ensuring sustainable social and cultural development of the Arctic region and the well-being of Indigenous Peoples, promoting sustainable and diverse economic development together with environmental protection and climate change adaptation, supporting SDWG working planning and ensuring SDWG priorities are reflected in Arctic Council discussions on support for Working Group (WG) projects and project proposals.

Promotion of scientific, educational and cultural exchanges, tourism and contacts between peoples and regions will also be high on its agenda. Special attention will be given to the preservation of linguistic and cultural heritage of Indigenous Peoples of the Arctic, and to youth cooperation across borders.

## 2. ENVIRONMENTAL PROTECTION

Taking into account the rapid climate change in the Arctic, most notably accompanied by degradation of permafrost and icy gas hydrides emissions, which will be given special attention, the Russian Chairmanship will continue supporting efforts to mitigate the negative effects of climate change, increase adaptation of life activities and ensuring resilience to its consequences, preserving and restoring the environment, the sustainable use of natural resources, maintaining the health of Arctic ecosystems, including marine environment, preserving biodiversity, in particular, the Arctic migratory birds. In the context of further development of the region, it is important to take into account not only the Arctic's vulnerability to climate change, but also its long-term contribution – due to its natural,

energy and transport resources and solutions – in facilitating the transition to a low-emission economy and, accordingly, to the implementation of the goals of the Paris Agreement. Equally, a topical task is to promote the introduction of advanced sustainable innovative technologies into the transport, industry, infrastructure and energy sectors, including the use of renewable energy sources to improve the standards of living of the Arctic inhabitants.

### 3. SOCIO-ECONOMIC DEVELOPMENT

A key condition for the well-being and prosperity of the Arctic is its sustainable economic development. The Russian Chairmanship will be further promoting constructive economic cooperation in the region, developing of reliable energy infrastructure, sustainable transport routes, including shipping, telecommunication systems, food production sector, improving the conditions for sustainable investment flows, encouraging innovations and entrepreneurship, and business financing.

### 4. STRENGTHENING THE ARCTIC COUNCIL

The Russian Chairmanship will continue supporting the establishment of the Arctic Council as the leading format for international Arctic cooperation, improving its work, increasing the effectiveness of its Working and Expert groups, the Arctic Council Secretariat, as well as developing mechanisms for financing the Council's activities, including its projects and programs, implementing decisions and recommendations, as well as encouraging the dialogue and interaction with the Observers to provide their meaningful and balanced engagement in the Council's activities. Russia intends to further intensify collaboration of the Arctic Council with the Arctic Economic Council, the Arctic Coast Guard Forum, and the University of the Arctic. Among the priorities of the Russian Chairmanship – promoting international scientific cooperation, in particular, and exploring the possibility to conduct an Arctic Council scientific expedition to the Arctic Ocean.

## PART II | ARCTIC COUNCIL WORKING GROUPS AND EXPERT GROUP

final draft

# Arctic Council subsidiary bodies: working together to advance common priorities

A priority of Iceland's Chairmanship has been *A Stronger Arctic Council*. To achieve this goal, Iceland has strived to enhance the constructive cooperation that has always been a key strength of the Council.

At the subsidiary body level, synergies have been created through recognizing common priorities, establishing cross-cutting collaborations, providing a suite of new knowledge, and producing comprehensive, cutting-edge assessments and recommendations.<sup>3</sup>

This chapter provides an overview of the cooperation and cross-cutting work between subsidiary bodies during the Icelandic Chairmanship. It shows how they work together on a variety of pressing issues, what has been achieved and how these efforts will continue during the upcoming Russian Federation Chairmanship (2021-2023).

Responding to current and emerging opportunities and challenges facing the Arctic and its inhabitants requires cooperation across the Arctic Council. During 2019-2021, subsidiary bodies have worked to advance the Arctic Council's priorities and enhance cooperation through:

- Coordination of activities;
- Cooperation on common issues;
- Communication and outreach; and,
- Flexibility to respond to evolving priorities.

## COORDINATION

Subsidiary bodies cooperate via an established framework structured to ensure efficient use of resources, avoid duplication of efforts, and carry out activities that are mutually reinforcing. This entails the following activities:

- The Arctic Council Chairmanship convenes regular meetings with the Working Group (WG) Chairs, executive secretaries, Expert Group (EG) leads and the Arctic Council Secretariat (ACS) to support coordination and implementation of work plans;
- In addition, WG Chairs, executive secretaries, Expert Group (EG) leads and the ACS meet regularly to discuss planned events, and contributions to activities and projects. These meetings are also used for planning, preparing and cross-referencing work plans and strategies to highlight and ensure synergies and minimize duplication;
- Subsidiary bodies participate in each other's meetings and the organization of larger events such as the March 2021 *International Symposium on Plastics in the Arctic and Sub-Arctic*

---

<sup>3</sup> As of 2021, Arctic Council subsidiary bodies include all six Working Groups, the Expert Group on Black Carbon and Methane (EGBCM) and the Arctic Council Secretariat.

Region and the upcoming 3<sup>rd</sup> Arctic Biodiversity Congress) entails engagement of all subsidiary bodies to ensure harmonization of activities;

- Subsidiary bodies often address the same theme in a coordinated way, but within their respective mandates and areas of expertise, e.g., mercury and human health;
- Subsidiary bodies coordinate, where relevant, on the drafting and review of major reports, especially policy-relevant recommendations, to ensure consistency of messaging and products. This also provides a means to identify additional areas of cooperation;
- Subsidiary bodies collectively engage with Arctic Council Observers through thematic discussions and events;
- The ACS works with the subsidiary bodies to facilitate collaboration and avoid duplication of efforts. It provides general communications and technical support as appropriate and when resources allow; and,
- The [WG Common Operating Guidelines](#), the [Arctic Council Observer Manual for Subsidiary Bodies](#) and [Arctic Council Rules of Procedure](#) further streamline information flow and activities amongst subsidiary bodies.

## COOPERATION

Several subsidiary bodies have long-term strategic plans and activities with defined goals and objectives which facilitate cooperation. Examples include:

- Improving the understanding of the impacts of climate change on the Arctic;
- Addressing pollution with litter and microplastics in the Arctic and the development of a regional action plan on marine litter in the Arctic; and,
- Harmonizing monitoring activities across the Arctic.

## COMMUNICATION AND OUTREACH

Improving communication of the findings and outcomes of the work of the Council's subsidiary bodies is an important focus. This includes regular calls to coordinate and plan communications work between subsidiary bodies and the ACS according to the [Arctic Council Communications Strategy](#). (Examples include press releases, magazine articles, films, and events.)

## FLEXIBILITY TO RESPOND TO EVOLVING PRIORITIES

Through this framework, the subsidiary bodies have established mechanisms to cooperate and collectively advance the priorities of the Arctic Council. However, subsidiary bodies have also demonstrated that this framework provides the flexibility necessary to respond effectively to new and emerging issues. Recent examples of this are proposed joint activities related to Covid-19, joint projects on wildland fire and plans for strengthening youth engagement in Arctic Council activities.

The following sections in this chapter provide an overview of the achievements of Arctic Council subsidiary bodies during the Icelandic Chairmanship as well as their 2021-2023 work plans for the

upcoming Russian Chairmanship. More detailed information about subsidiary group cooperation is also provided.

final draft

Sustainable Development Working Group  
(SDWG) final draft

## SDWG MANDATE

The Sustainable Development Working Group's (SDWG) Terms of Reference (ToR) were formally adopted at the Arctic Council Ministerial meeting in Iqaluit, Canada in September 1998. The goal of the sustainable development program is to propose and adopt steps to be taken by the Arctic States to advance sustainable development in the Arctic, including opportunities to protect and enhance the environment, economies, cultures and health of Indigenous Peoples and of Arctic residents, as well as to improve the environmental, economic and social conditions of Arctic communities as a whole. The [SDWG Strategic Framework 2017](#) encourages projects and initiatives under twelve thematic priorities relating to the human dimension of the Arctic.

## ACHIEVEMENTS 2019-2021

In follow-up to the Rovaniemi Ministerial meeting in 2019 and according to the twelve thematic priorities set out in the *SDWG Strategic Framework 2017*, SDWG has, inter alia, undertaken the following work over the course of 2019-2021.

### Summary of achievements 2019-2021

In 2020, SDWG projects were uniformly impacted by the Covid-19 pandemic. Travel delays, impacts on local communities, and altered communications all affected project activities, timelines, and deliverables. While some projects were able to complete objectives and conclude deliverables through alternate and virtual means, others were forced to postpone activities and shift timelines.

## LIST OF SDWG DELIVERABLES TO THE REYKJAVIK MINISTERIAL MEETING

The SDWG is pleased to present 16 deliverables at the Reykjavik Ministerial meeting that demonstrate progress across all the SDWG's categories of work, including the release of 6 reports, the launch of 1 web-based tool, and the delivery of 9 events. These SDWG deliverables are organized under four categories: societies and cultures, health and well-being, business and economies and enabling infrastructure. However, it should be noted that many SDWG projects are multidisciplinary and contribute to multiple priorities identified by the SDWG.

### Societies & Cultures

#### *Arctic Children: Pre-School and School Education*

- “Arctic Talents. Arctic 2020” conference held in Kaluga Region, Russia in August 2020; and,
- Event to open the International Arctic School in Yakutsk on 1 September 2020.

### *Gender Equality in the Arctic III*

- [Final Report](#)

#### Health & Well-Being

##### *One Arctic, One Health*

- “Understanding and Responding to Global Health Security Risks from Microbial Threats in the Arctic” Workshop in November 2019;
- Association between Mental Health, National Identity, and Preservation of Native Culture – virtual “One Arctic, One Health” knowledge sharing activity in November 2020; and,
- “One Health, One Future” – virtual circumpolar conference hosted by the University of Alaska Fairbanks in April 2021.

##### *Local2Global*

- Workshop series research initiative on Adverse Childhood Experiences held in April-May of 2021;
- A series of 5 virtual knowledge sharing sessions with Indigenous front-line workers on Indigenizing mental wellness care, parenting, youth perspectives and mobilizing communities held in March 2021; and,
- Youth Digital Stories and Community Exchange event, including in-person and virtual Project CREATEs film screenings, youth panels, and wellness activities held in 2-4 March 2021 in Inuvik, Canada.

#### Business & Economies

##### *Economy of the North (ECONOR) IV*

- [Final Report](#)

##### *Blue Bio-Economy in the Arctic Region*

- [Final Report](#)

#### Enabling Infrastructure

##### *Zero Arctic: Concepts for Carbon Neutral Arctic Construction Based on Tradition*

- [Final Report](#)

##### *Arctic Renewable Energy Atlas*

- [Online tools](#) for Arctic communities interested in renewable energy.

### Activities Tasked by SAOs

#### *COVID-19 pandemic in the Arctic*

- [COVID-19 in the Arctic Briefing Document to Senior Arctic Officials](#)

#### *Arctic Resilience Forum 2020*

- [10 thematic webinars](#) between September and December 2020 each dedicated to a specific aspect of Arctic resilience; and,
- [Summary Report](#)

### Overview of other SDWG contributions during 2019-2021

Due to the COVID-19 pandemic, not all SDWG projects were able to contribute the deliverables originally anticipated for the Reykjavik Ministerial meeting. However, project leads have found innovative ways to modify their activities and advance the core objectives of these projects. The following 4 projects were significantly impacted and deliverables are now expected to be presented at the Ministerial Meeting in 2023.

- Arctic Indigenous Youth, Food Knowledge and Arctic Change (EALLU) II;
- Arctic Food Innovation Cluster;
- Arctic Remote Energy Networks Academy (ARENA) II; and,
- Solid Waste Management in Remote Arctic Communities.

## SDWG WORK PLAN 2021-2023

### Introduction

The SDWG focuses on the human dimensions of the Arctic, and in accordance with its mandate, pursues activities to protect and enhance the environment, economy, social conditions and health of Indigenous Peoples and Arctic residents. The SDWG work plan for 2021 to 2023 has been developed taking into account the *SDWG Strategic Framework 2017*, including the twelve thematic priority areas contained in it, with a view to promoting initiatives that: enhance sustainable development and meaningful understanding of the Arctic region; are applicable and valuable for the communities; are long-term in scope; and enhance circumpolar collaboration and engagement of Indigenous Peoples and Arctic residents.

During the 2021-2023 work period, SDWG has identified specific focus areas that will inform its work:

### *Arctic Council Work Related to Human Health & Covid-19*

- Modify SDWG projects to factor in Covid-19 circumstances and, where appropriate, integrate activities related to Covid-19;
- Deliver/support human health and Covid-19 related projects;
- Seek advice and input from other Arctic Council Working Groups and SDWG Expert Groups; and,
- Assess and report on the SDWG's work related to Covid-19 in the Arctic.

### *United Nations' Sustainable Development Goals in the Arctic*

- Deliver and/or support projects and activities that contribute towards achieving the United Nations' Sustainable Development Goals (SDGs) relevant both to the mandate of the SDWG and the Arctic region.

### *Decade of Indigenous Languages (2022-2032)*

- Support Indigenous Peoples' efforts to sustain and strengthen Indigenous languages; and,
- Deliver and/or support projects and activities related to Indigenous languages.

### *SDWG Governance*

- Establish SDWG permanent secretariat;
- Continue to strengthen the role of and connections with the Arctic Human Health Expert Group (AHHEG) and Social, Economic and Cultural Expert Group (SECEG) in working group activities; and,
- Continue to align SDWG work & project planning with the *SDWG Strategic Framework 2017* and the ongoing strategic planning efforts of SAOs to advance the SDWG's mandate.

### List of individual projects and activities

The projects identified in this work plan include projects that have been endorsed by the SDWG. In addition, some project proposals that have not been endorsed by the SDWG are referenced below for information but should not be considered as affirmed or agreed upon. **These projects will include an asterisk (\*) to distinguish from approved projects on the SDWG work plan.**

Additional project proposals that align with the SDWG's objectives for this work period may be developed and endorsed within the scope of this work plan during the Russian Chairmanship (2021-2023). Projects and activities below are presented under four categories: societies and culture, health and well-being, business and economies and enabling infrastructure. Many projects contribute to multiple strategic priorities. In general, funding for SDWG projects is provided by leads and co-leads as direct contributions and in-kind support. No budget information is thus provided below.

## Societies & Cultures

### *Arctic Indigenous Youth, Food Knowledge and Arctic Change (EALLU) II*

**Lead/Co-leads:** Norway, Canada, Russian Federation, Aleut International Association (AIA), Saami Council and the Association of World Reindeer Herders (WRH)

**Rationale and overall objective:** This project involves maintaining and further developing sustainable and resilient reindeer husbandry in the Arctic in the face of climate change and globalization with the goal of enhancing resilience and working towards creating a better life for Arctic Indigenous reindeer herding peoples. The project focuses on youth involvement and engagement and builds an awareness of Arctic change for northern Indigenous youth. It increases focus and understanding of Arctic Indigenous food cultures and value added, by disseminating and giving a voice to the Indigenous knowledge and food cultures of Arctic Indigenous Peoples. It also stimulates knowledge development for innovation, business development and local value added in Arctic Indigenous Peoples' societies and areas, in appropriate ways, working in the intersection between academia and business, between science and Indigenous knowledge, and between "modernity" and traditions.

**Relevant SDWG thematic priorities:** community vitality, educational opportunities, heritage and culture of Arctic communities, science and research for sustainable development, adaptation and resilience, sustainable business involvement and development.

#### **Main activities:**

1. Documents, systematizes, makes use of and respects the Traditional and Indigenous Knowledge (TIK) of food cultures of Arctic Indigenous/reindeer herding peoples, including the original circular aspects of their traditional economies;
2. Work towards knowledge building and experience exchange in and between local Indigenous/reindeer herding societies in the Arctic, focusing on food culture and youth;
3. Share information and experience through the ReindeerPortal.org and ArcticPortal.org; and,
4. Conduct seminars and place-based workshops, local capacity building, summer/ winter schools, networking, as well as co-production of project outputs by youth themselves.

**Timeline:** 2019-2023

### *Digitalization of Linguistic and Cultural Heritage of Indigenous Peoples of the Arctic*

**Lead/Co-leads:** Russian Federation, Norway and the Russian Association of Indigenous Peoples of the North (RAIPON)

**Rationale and overall objective:** This project is focused on preserving and developing Indigenous languages, traditional knowledge and cultures of the Arctic Indigenous People including food heritage. The project envisages wide use of modern digital technologies, creation of a

GIS map and Arctic Indigenous Peoples' knowledge database on a uniform multilingual portal, [www.arctic-megapedia.com](http://www.arctic-megapedia.com). The project will provide access to a wide range of information on ways to preserve and develop the linguistic and cultural heritage, as well as the traditional way of life of Indigenous Peoples of the Arctic. This will contribute to better understanding, advancing sustainable development and adapting to evolving living conditions in the Arctic.

**Relevant SDWG thematic priorities:** community vitality, educational opportunities, heritage and culture of Arctic communities, science and research for sustainable development.

**Main activities:**

1. Form an international team of contributing participants from Arctic States;
2. Study best practices for preservation of the linguistic and cultural heritage of the Arctic Indigenous Peoples;
3. Interview and record native speakers of the Arctic Indigenous languages and custodians of traditional Indigenous cultures;
4. Collect materials from public and private archives on linguistic, cultural, historical and food heritage;
5. Involve Indigenous youth in research work to preserve linguistic and cultural heritage;
6. Present information about the Arctic Indigenous Peoples on the Arctic multilingual Internet portal and create a structured knowledge base for preservation and development of language, culture and traditional way of life;
7. Develop GIS maps of Arctic Indigenous languages in the Arctic;
8. Conduct a seminar on the Arctic Indigenous Peoples intellectual property rights; and,
9. Conduct a workshop on building an open-source development infrastructure for language technology.

**Timeline:** 2020-2023

*Arctic Demography Index*

**Lead/Co-leads:** Russian Federation, Canada and Norway

**Rationale and overall objective:** This project aims to provide both data and recent trends on demography situation in the Arctic by developing an Arctic Demography Index that integrates natural (natural increase and decrease) and mechanical (education, labour, snowbird and sunshine) demography parameters in five Arctic States (Russian Federation, Finland, Norway, Sweden and Canada). This project will also conduct case studies in these countries of tensions between Indigenous Peoples and business, and how these tensions are managed.

**Relevant SDWG thematic priorities:** community vitality, science and research for sustainable development.

**Main activities:**

1. Evaluation and assessment of best practices in the sphere of two natural and mechanical demography parameters (natural decrease, natural increase, migration flows of four types in five Arctic Council States (Russian Federation, Finland, Norway, Sweden and Canada);
2. Evaluation and assessment of best practices in the sphere of Arctic migration collecting statistical data in terms of four types of migration (educational, labour (circular+initial), snowbird and sunshine migration) and its visualization in infographics;
3. Information exchange arranging with the stakeholders on a regular basis aimed on sharing the best practices in the sphere of demography within Arctic States;
4. Calculating Arctic Demography Index for 19 Arctic territories of five Arctic Council States in terms of natural and mechanical demography parameters;
5. Collecting of cases from five Arctic Council States to develop knowledge to understand better conflicts of interests between Indigenous Peoples and business, and how such conflicts are handled; and,
6. Creation of the official portal dedicated to the Project and its implementation outcomes.

**Timeline:** 2020-2023

The SDWG may also undertake work related to preschool education, gender equality, living conditions in the Arctic and Arctic resilience during 2021-2023.

Health & Well-Being

*One Arctic, One Health*

**Lead/Co-leads:** United States, Canada, Kingdom of Denmark and Finland

**Rationale and overall objective:** This project develops a collaborative network of Arctic One Health (human-animal-environmental health nexus) stakeholders. The desired end state is to establish independent and self-sustainable One Health hubs points of contact (PoC) in each Arctic States and Permanent Participants, who can rapidly receive and process inquiries related to collaboration from other hubs on an ongoing basis, and continue to facilitate One Health work across the circumpolar North. The project functions through iterative collaboration among an ever-widening circle of project partners.

**Relevant SDWG thematic priorities:** community vitality, heritage and culture of Arctic communities, human health, science and research for sustainable development

**Main activities:**

1. This project builds a collaborative network of Arctic One Health (human- animal-environmental health nexus) stakeholders via:
  - a. knowledge sharing;
  - b. tabletop exercises; and,
  - c. collaborative investigations of One Health phenomena such as disease outbreaks and natural disasters.
2. Project leads also organize, host, and participate in conferences and webinars examining and discussing One Health phenomena; and,
3. Since 2015, the project leads have convened approximately 2-3 times per year, leveraging various events in the Arctic region to minimize travel and time costs to participants.

**Timeline:** 2019-2023

*Local2Global*

**Lead/Co-leads:** Canada, Kingdom of Denmark, Finland, Sweden, Inuit Circumpolar Council, Saami Council

**Rationale and overall objective:** This project facilitates international collaboration and connections between circumpolar communities working to prevent suicide and support the mental well-being of all Arctic youth and communities, including Arctic Indigenous Peoples who have the highest rates of suicide in the Arctic. The project takes a holistic approach founded on the SDWG guiding principles of collaboration, concrete achievements, and inclusive engagement and activity.

**Relevant SDWG thematic priorities:** community vitality, heritage and culture of Arctic communities, human health, reduction and elimination of inequalities

**Main activities:**

1. Digital storytelling workshops;
2. Knowledge exchange study tour;
3. Circumpolar adverse childhood experiences research initiative; and,
4. Local2Global Circumpolar Forum.

**Timeline:** 2019-2023

### *Biosecurity in the Arctic (in collaboration with AMAP and CAFF)*

**Lead/Co-leads:** Russian Federation and Finland

**Rationale and overall objective:** This project will contribute to supporting public health systems and public services in implementing a quick response to current and future biological threats related to the uncontrolled spread of highly virulent pathogens, parasites, biotoxins, and other biohazards across the Arctic.

**Relevant SDWG thematic priorities:** community vitality, human health, science and research for sustainable development

**Main activities:**

1. Bring together relevant experts from AMAP, CAFF, SDWG, and PPs to finalize specific tasks, deliverables, and timeframes for the project implementation;
2. Prepare a case study-based peer-reviewed report integrated with Indigenous knowledge related to specific biohazards in the Arctic that may pose risks to life and human health (White Paper); and,
3. Prepare recommendations on a community-based screening, monitoring, and information system for infectious disease control, prevention, and risk communication.

**Timeline:** 2021-2023

The SDWG may also undertake work related to Covid-19 in the Arctic during 2021-23.

### Business & Economies

#### *Arctic Food Innovation Cluster*

**Lead/Co-Leads:** Canada, Russian Federation, Finland, Iceland, Aleut International Association (AIA), Arctic Athabaskan Council (AAC), Gwich'in Council International (GCI), Inuit Circumpolar Council (ICC)

**Rationale and overall objective:** This project pulls together key stakeholders in the Arctic foods value chain for a cluster-based approach to food production and regional economic development. For the purposes of this project, food production encompasses traditional, artisanal, and industry-scale production of natural resources into food for own, national, and international consumption, whereas food innovation includes new modes of production and consumption patterns. This cluster-based approach to food innovation draws together Arctic food producers with governments, Arctic Indigenous communities, universities, research centers, vocational training providers, and industry associations and young people. Overall, the project seeks to respond to numerous complex challenges in achieving sustainable food systems in the Arctic.

**Relevant SDWG thematic priorities:** Economic development; community vitality; reduction and elimination of inequalities; Indigenous heritage and culture.

**Main activities:**

1. Development of an Implementation Plan that will provide evidence-based knowledge for policy and development interventions that contribute to economic development through sustainable food and nutrition security;
2. Indigenous Food Innovation Enhanced (IEE) (co-lead, Nord University, Bodø, Norway) will empower Indigenous Peoples through food innovation and entrepreneurship. The learning goal is to master small business innovation in the changing circumpolar world while taking account of the Indigenous Traditional Knowledge (TK); and,
3. Indigenous Food Systems in the Arctic (IFSA) will explore the critical dimensions of Indigenous food systems in the Arctic. This on-line series and edited book will engage a broad audience in conversations about the cultural, economic and political dimensions of Indigenous food systems in the Arctic.

**Timeline:** 2019-2023

Project proposals are under consideration by the SDWG on Sustainable Arctic Shipping\*; Gas Hydrates: Environmental and Economic Impact on Sustainable Development and Climate-Driven Transformation of the Arctic\* (in collaboration with AMAP and EPPR); and Sustainable Arctic Finance\*.

Enabling Infrastructure

*Sustainable Development Goals in the Arctic: The Nexus Between Water, Energy, and Food (WEF)*

**Lead/Co-leads:** Canada, Finland, Iceland

**Rationale and overall objective:** This project examines the nexus between SDG 2 – Ending hunger and achieving Food security for all; SDG 6 – Ensuring the availability and sustainable management of Water and sanitation for all; and SDG 7 - Ensuring access to affordable, reliable, sustainable and modern Energy for all. This research will be the first WEF nexus study conducted in the Arctic and aims to go beyond knowledge production to develop concrete tools. It will involve collaboration between SECEG representatives and their networks, other Arctic Council Working Groups (WGs), Indigenous Permanent Participant Organizations (PPs), academic institutions, Arctic Council Observers and other relevant circumpolar organizations. This project will advance integrative thinking that reflects the interconnectedness within WEF systems in ways that will contribute to the attainment of the UN SDGs in the Arctic.

**Relevant SDWG thematic priorities:** community vitality, heritage and culture of Arctic communities, human health, infrastructure, science and research for sustainable development, sustainable energy

**Main activities:**

1. Assemble National Research teams;
2. National and international project meetings;
3. Regional and sub-regional data collection/analysis;
4. Stepwise analyses;
5. Inter-institutional gap framework analysis;
6. On-line decision support tool;
7. Final reporting; and,
8. Nexus thinking in the Arctic Conference.

**Timeline:** 2020-2023

*Solid Waste Management in Small Arctic Communities (in collaboration with ACAP)*

**Lead/Co-leads:** Aleut International Association (AIA), Canada, Finland, United States, Saami Council

**Rationale and overall objective:** This project involves cooperation between local, regional, and national governments, community leaders and solid waste management experts, to leverage available resources and scale up best practices that contribute to resilient and healthier Arctic communities. This project seeks to provide a number of in-person and online resources to address the unique needs of Arctic communities, from planning to implementation of solid waste management practices. Infrastructure improvements and in-community education and training on maintenance operation for these improvements are a high priority. Coordination with local solid waste management liaisons is crucial to retain a strong and respected field presence with local communities throughout this project.

**Relevant SDWG thematic priorities:** community vitality, human health, infrastructure, water and sanitation services

**Main activities:**

1. Identify and engage with 3-5 remote Arctic communities in need of solid waste/marine debris improvements. Based on pre-project scoping candidate communities have been identified in the United States, Canada, and the Russian Federation;
2. Plan and conduct community waste site assessments in cooperation with community leaders in selected communities;

3. Develop detailed pilot community workplans for applying and achieving a rubric of Arctic community standards, including a goal to accomplish a key solid waste management improvement at the local level that best reflects the needs of the community;
4. Conduct joint meetings/training/workshops with community leaders and responsible environmental authorities and operators to safeguard joint understanding of action plans and management schemes and share best practices between pilot communities;
5. Aid in each community to focus on capacity building tools;
6. Collect, stage or backhaul household hazardous or universal wastes/marine litter from pilot communities, as appropriate;
7. Share lessons learned on trust relationships built during each phase of project;
8. Continue to develop and update the web-based Online Exchange Network of Solid Waste/Marine Debris Resources; and,
9. Develop short videos from each pilot community that illustrates the issues and highlights the results of the community project, which may include new ways of doing things during Covid-19.

**Timeline:** 2020-2023

### *Arctic Remote Energy Networks Academy II (ARENA II)*

**Lead/Co-leads:** Canada, Iceland, Russian Federation, United States, Gwich'in Council International (GCI)

**Rationale and overall objective:** This project enables capacity building by sharing knowledge and establishing professional networks related to the transition from diesel to hybrid and renewable energy systems. It provides participants with the necessary knowledge base, skills, and collaboration networks to develop clean energy projects in their own communities or regions, with a view of effectively achieving balance between economic viability, energy security, and environmental and public health concerns in the circumpolar Arctic.

**Relevant SDWG thematic priorities:** community vitality, educational opportunities, infrastructure, science and research for sustainable development, sustainable energy, reduction/elimination of inequalities.

**Main activities:**

1. Building on the successful model of ARENA I, host on-site and virtual planning for learning opportunities to provide knowledge, skills and tools that facilitate integrating clean energy technologies in the Arctic region with a view to promote development of community energy solutions;

2. Combine visits to communities and participant knowledge exchanges with presentations and laboratory demonstrations; and,
3. Connect current and emerging energy professionals with hands-on learning experiences, mentors, and project development leaders from throughout the north.

Due to the uncertainty of Covid-19, the site visits planned for Canada, Alaska, and Iceland are postponed until they can be safely delivered.

**Timeline:** 2019-2023

### *Arctic Hydrogen Energy Application and Demonstration (AHEAD)*

**Lead/Co-leads:** Russian Federation and Norway

**Rationale and overall objective:** This project involves the design, construction and development of the year-round International Arctic Station (IAS) based on fully-autonomous hydrogen energy for finalizing, testing and popularizing solutions in the future environmental life-support technologies. It also provides a venue to test other technologies that may improve living conditions in remote areas in the Arctic, such as medicine, biotechnology, clean agricultural technology, telecommunications, robotics, ‘the Internet of Things’ and ‘smart home/village,’ new materials and construction technologies and others. The IAS will also provide a venue for supporting joint research on climate change, ecology and environmental pollution, including the oceans. Functioning as a ‘living laboratory,’ IAS will provide a technological and economic foundation to scale up the newly developed solutions for widespread use.

**Relevant SDWG thematic priorities:** community vitality, educational opportunities, infrastructure, science and research for sustainable development, sustainable energy.

**Main activities:**

1. Construct and prepare for launch of the IAS;
2. Test operation of the IAS; and
3. Launch technological and educational projects at the IAS, turning the station into scheduled operation and development of new cooperative international programs.

**Timeline:** 2020-2023

The SDWG may also undertake additional work related to Arctic energy issues.

## EXPERT GROUP ACTIVITIES

SECEG and AHHEG have taken further action to increase cooperation between the Expert Groups (EG) as well as with the SDWG. EGs' role as an analytical tool for sustainable development and further implementation of the *SDWG Strategic Framework 2017* will continue to be strengthened as will the opportunity for experts to have meaningful input for strategic planning and work plans.

During the last four of years there have been significant effort by the EGs to engage with social science and Indigenous knowledge communities. Further, through the Covid-19 initiative and work, cooperation between the SDWG, SECEG, AHHEG and a wider circle of experts, including from observers such as IASSA, has significantly increased. Impacts of Covid-19 are still emerging. Cooperation will continue to respond to the impacts and will include evidence-based knowledge from Indigenous experiences and western methodology – in particular, a potential project, not yet endorsed by the SDWG, to produce a Covid-19 in the Arctic Assessment Report.

### **SECEG activities include:**

- Finalizing the Renewable Resource Economies in the Arctic: A State of Knowledge Report;
- Consulting on the Gender Equality in the Arctic III Report;
- Cooperating with co-leads on the newly initiated project SDGs in the Arctic: The Nexus between Water, Energy, and Food (WEF); and,
- Continuing developing a project on Co-production of Knowledge.

### **AHHEG activities include:**

- Continuing to be active and involved in long term SDWG projects such as One Arctic One Health and Local 2 Global; and,
- Working closely with AMAP's Human Health Expert Group on the Biosecurity in the Arctic project.

Representatives of both EGs will also participate in events and activities hosted by the Russian Federation as possible and appropriate within the parameters of their 2021-2023 work plans.

## COLLABORATION WITH OTHER WORKING GROUPS

SDWG will work with other Arctic Council subsidiary bodies on the following confirmed initiatives during the 2021-2023 work period:

- SDWG collaboration with ACAP on the Solid Waste Management in Remote Arctic Communities project;

- SDWG collaboration with AMAP and CAFF on the Biosecurity in the Arctic project;
- SDWG collaboration with PAME on:
  - Planning of the Third Ecosystem-Based Approach Workshop on Values and Valuation; and,
  - Reporting on SDWG activities that contribute to the Arctic Marine Strategic Plan.
- Through AHHEG, SDWG continues to collaborate with AMAP's Human Health Assessment Group on a range of human health projects and activities.

## ADMINISTRATION

The SDWG Secretariat is located in Ottawa, Canada. The secretariat is currently operated under a contract funded primarily by the Government of Canada, with contributions from Finland and Nunavut (Canada). The Executive Secretary is under contract until June 2022. Canada is in the process of establishing a permanent secretariat for the SDWG.

During the Icelandic Chairmanship, the SDWG held four plenary meetings. For the period 2021-2023, the Russian Federation will chair the SDWG.

## COMMUNICATIONS AND OUTREACH

SDWG adopted a communications plan in May 2017 in conjunction with the new *SDWG Strategic Framework 2017*. During the 2019-2021 period, SDWG launched a new [website](#), maintained an enhanced social media presence and worked closely with the Arctic Council Secretariat (ACS) to promote and share information about SDWG projects through articles, interviews, fact sheets and videos. The communications work plan for 2021-2023 is under development by the SDWG Communications sub-committee and will include further efforts to promote and share information about SDWG activities, presentations at workshops, seminars, conferences and events, and responding to press inquiries. SDWG materials are translated into other languages when resources allow.

Protection of the Arctic Marine Environment  
(PAME) **final draft**

## PAME MANDATE

The Protection of the Arctic Marine Environment (PAME) Working Group (WG) is the focal point of the Arctic Council's wide range of activities related to the protection and sustainable use of the Arctic marine environment and provides a unique forum for collaboration. Its mandate is to:

*address marine policy measures and other measures related to the conservation and sustainable use of the Arctic marine and coastal environment in response to environmental change from both land and sea-based activities, including non-emergency pollution prevention control measures such as coordinated strategic plans as well as developing programs, assessments and guidelines, all of which aim to complement or supplement efforts and existing arrangements for the protection and sustainable development of the Arctic marine environment.*

## ACHIEVEMENTS 2019-2021

Over the last two years, PAME's work has proceeded in accordance with its biennial 2019-2021 work plan, as approved by the Arctic Council Ministers in 2019. PAME cooperates with other Arctic Council WGs to contribute to improved efficiency and effectiveness of the Council. Further, PAME works substantively with Arctic inhabitants, including Indigenous Peoples and local communities, to collaborate on a wide range of activities and topics on the Arctic marine environment.

### Summary of achievements 2019-2021

As a follow-up to the [Rovaniemi Joint Ministerial Statement](#) 2019 and the [Statement by the Arctic Council Chair](#) (Minister for Foreign Affairs of Finland) on the Occasion of the Eleventh Ministerial meeting of the Arctic Council, PAME has, inter alia, undertaken the following work during the 2019-2021 biennium.

### *Follow-up to the 2009 AMSA Report and other Shipping Report Recommendations*

PAME and its Shipping Expert Group (SEG) advanced a number of projects and initiatives to promote safe and sustainable shipping in the Arctic, including:

- Collaboration with multilateral organizations on Arctic-related activities of common interest, i.e.:
  - Signing in 2020 of a Memorandum of Understanding (MoU) with the Arctic Regional Hydrographic Commission (ARHC) followed by preliminary approval of four ARHC proposed joint PAME-ARHC projects for inclusion in PAME's 2021-2023 work plan designed to support Arctic maritime safety and protection of the Arctic marine environment;

- Ongoing communications with the International Maritime Organization (IMO) on shipping issues and developments of interest to both bodies, including with respect to advancing safe and environmentally sound shipping in the Arctic; and,
  - Participation by PAME in the International Council for the Exploration of the Sea (ICES) WG on Shipping Impacts in the Marine Environment (WGSHP) to exchange information and identify potential areas of mutual interest and collaboration.
- Convening the [third](#) and [fourth](#) meetings of the Arctic Shipping Best Practice Information Forum (established by PAME in 2017) in support of effective implementation of the IMO's Polar Code, including by means of the Forum's web portal ([www.arcticshippingforum.is](http://www.arcticshippingforum.is));
  - The development of three [Arctic Shipping Status Reports](#), one on the increase in Arctic shipping from 2013-2019, one on the use of heavy fuel oil (HFO) in the Arctic in 2019, and one comparing shipping traffic in Canada's Northwest Passage in 2013 and 2019;
  - The finalization of the Arctic Marine Tourism Report, a trend analysis of tourism vessels in the Arctic with recommendations and next steps, and an overview of Best Practice Guidelines for cruise tourism in the Arctic;
  - PAME officially launched the [Arctic Ship Traffic Data \(ASTD\) System](#) in February 2019 and has since granted data access to almost 200 users from multiple entities across Arctic States, Arctic Council Observers, and professional organizations with an interest in safe and sustainable Arctic shipping. PAME will continue to promote and strengthen the ASTD System by adding new data layers and advancing its capabilities;
  - In partnership with EPPR, PAME completed a *Compendium of Arctic Shipping Accidents (CASA)* inventorying ship accidents in the Arctic during 2005-2017, which updates the [Arctic Marine Shipping Assessment \(AMSA\) Report's](#) ship accident data and will help to inform decisions to strengthen the safety of Arctic navigation;
  - PAME also completed the Phase I Report on *Underwater Noise in the Arctic – Understanding Impacts and Defining Management Solutions* and the report on *Low Impact Shipping Corridors*; which aims to share best practices on existing and ongoing efforts to provide safe and environmentally sound shipping routes across the circumpolar Arctic;
  - PAME continued work to help address the Arctic shipping infrastructure deficit by developing draft amendments to the International Convention for the Prevention of Pollution from Ships (MARPOL). Once these amendments are submitted by Arctic States to the IMO and if adopted by the Organization, they will form the basis of an Arctic Regional Arrangement for Port Reception Facilities that will better enable Arctic States to meet their MARPOL obligation to receive wastes generated by ships that may not be discharged into the marine environment. Work will continue in the PAME 2021-2023 work plan on both *Developing a framework for more systematically engaging with Observers on shipping-related matters* and *Developing an overview of Arctic States' and Observer States' interpretation of the Polar Code*;
  - PAME also finalized a four-year project to develop proposed updates of the [2009 AMSA Report's](#) 17 Recommendations. Those 17 Recommendations are more than a decade old and some were in need of revision to reflect more accurate terminology as well as to identify recommendations that

have since come to completion. As the AMSA Report and its original 17 Recommendations were approved by Ministers, the proposed updates were approved by Ministers at their 2021 meeting.

### *Protection from Invasive Species*

Implementation of the [Arctic Invasive Alien Species Strategy and Action Plan \(ARIAS\)](#) is a joint CAFF (for terrestrial) and PAME (for marine) effort. There were no joint ARIAS implementation projects proposed during the 2019-2021 work plan period, but PAME will, jointly with CAFF, undertake a project on Marine Invasive Alien Species in Arctic Waters during the next biennium. The objective is to improve the knowledge base for work in CAFF and PAME on specific actions in the ARIAS Strategy and Action Plan that focus on the unwanted potential transfer of marine invasive alien species by ships via ballast water (BW) and biofouling (BF) into and within Arctic waters. The project will build upon data from existing databases and published information.

### *Framework for a Pan-Arctic Network of Marine Protected Areas (MPAs)*

PAME and its MPA Expert Group (EG) developed two information briefs of MPAs under change: *Marine Protected Areas in a Changing Arctic* and *Indigenous Food Security in the Arctic – Implications of a Changing Ocean*. These information briefs were developed in collaboration with PPs and CAFF, as well as with AMAP on climate-related portions. The products leverage and synthesize factual information from work by the Arctic Council and other experts to communicate to decision makers and the public, contribute to cross-WG cooperation on common topics, and contribute to outreach on Arctic Council work.

PAME also completed the *Modelling Arctic Oceanographic Connectivity Technical Report* to further develop PAME's Marine Protected Area Network Toolbox. The model helps the complex process of designing and implementing successful MPAs, facilitating that the species and habitat intended to protect falls within the designated MPA. PAME will continue this work by including the Central Arctic Ocean in the model to better understand this poorly researched area of the Arctic high seas. CAFF, with its Circumpolar Biodiversity Monitoring Program (CBMP) is one collaborator in this work on oceanographic connectivity. PAME further provided an update to the *Arctic Protected Areas Indicator Report* from 2017.

### *Ecosystem Approach to Management (EA)*

PAME continues to follow national and international EA developments and facilitate the integration of the principles of EA into assessments and management recommendations. This contributes to the follow-up to the recommendations in the [2013 Ecosystem-Based Management in the Arctic Report](#), building on previous work on Large Marine Ecosystems (LME).

The joint EA EG, which originated in PAME, has been a PAME/AMAP/CAFF/SDWG EG since 2011 and coordinates EA activities for these participating Arctic Council WGs. This includes the planning of the 7<sup>th</sup> EA workshop on Value and Valuation in the Ecosystem Approach that was rescheduled due to Covid-19 and is now planned for 2022. The EA EG also recognizes that many Arctic Council WGs focus on elements of particular relevance for EA, but as these elements benefit from integration, the Arctic Council will only proceed successfully through WG cooperation.

The EA EG established a writing group for finishing the report on Ecological Objectives. This report will describe i) concepts, terminology, and definitions; and ii) experiences from practical application (e.g., EU Marine Strategy Framework Directive, individual countries and others as relevant).

PAME continues to participate in the joint effort by the ICES/North Pacific Marine Science Organization (PICES)/PAME WG on Integrated Ecosystem Assessment (IEA) for the Central Arctic Ocean (WGICA). The EA EG continues its efforts in strengthening communication between its co-chairs and their counterparts in other PAME EGs, including on shipping, as well as in the relevant Arctic Council WGs.

### *Arctic Offshore Resource Exploration and Development*

PAME and its Resource Exploration and Development Expert Group (RED EG) followed up on the [\*Meaningful Engagement of Indigenous Peoples and Local Communities in Marine Activities \(MEMA\) Part II Report\*](#) by producing the *MEMA Reference Guide*, which is designed to highlight good practices for meaningful engagement between proponents of activities in the Arctic and Indigenous Peoples and local communities. The MEMA online database is accessible on the PAME homepage at [www.memadatabase.is](http://www.memadatabase.is) and is publicly available as a resource for those interested in engagement of Arctic Indigenous Peoples and local communities.

PAME also completed a report on the *Status of Offshore Oil and Gas Activities and Regulatory Frameworks in the Arctic*. This report provides a compilation of the status on current or planned offshore oil and gas activities, as well as changes to relevant legislation, regulations, and policies over the last 10 years. This information may be used in future Arctic Shipping Status Reports and oil and gas related projects.

### *Marine Pollution in the Arctic*

PAME developed the *Regional Action Plan on Marine Litter in the Arctic* (ML-RAP). It addresses both sea- and land-based activities, focusing on Arctic-specific marine litter sources and pathways, and will play an important role in demonstrating Arctic States' stewardship efforts toward reducing the negative impacts of marine litter to the Arctic marine environment. The ML-RAP contains eight chapters and 59 Strategic Actions in the following eight sections:

1. Reducing Marine Litter Inputs from Fisheries and Aquaculture;

2. Reducing Marine Litter Inputs from Ships and Offshore Structures;
3. Improving Onshore Waste and Wastewater Management;
4. Sustainable Materials Management in the Arctic Environment;
5. Cleaning Arctic Coasts;
6. Strengthening Monitoring and Research;
7. Conducting Outreach; and,
8. International Cooperation.

PAME also launched the first bottle equipped with a GPS transmitter into the Atlantic Ocean from Reykjanes Peninsula, Iceland on 12 September 2019. Called “Plastic in a Bottle”, the capsule [simulated how marine litter and plastics travel far distances into and out of Arctic waters](#). The bottle travelled around 7,000 kilometers in 207 days before washing on shore in the Isle of Tiree, Scotland on 6 April 2020.

PAME has collected and posted submissions on marine litter literature of relevance to the Arctic into an online marine litter library [here](#).

### *Arctic Marine Strategic Plan (AMSP) 2015-2025 Implementation Plan*

The PAME Secretariat produced the 3<sup>rd</sup> *AMSP Implementation Report*, which records status on relevant AMSP Strategic Actions for the period 2019-2021 and identifies follow-up activities that are reflected in the PAME WP 2021-2023 and other WGs’ WPs, as per their respective mandates. The [AMSP Implementation Plan](#) provides a mechanism to systematically track the progress and status of its 40 Strategic Actions with its Tracking Tool Matrix. Each WG provided links between its projects and the relevant strategic actions and listed the status of each project.

A half-day webinar with all Arctic Council WGs dedicated to the AMSP was convened on 1 September 2020.

### *Covid-19 pandemic*

PAMEs work was not significantly impacted by the Covid-19 pandemic even though two of its meetings were convened online. Some challenges were encountered in scheduling the timing of the online meetings due to a wide range of time zones. Furthermore, coordination and collaboration with other WGs has been challenging due the extra time needed to virtually coordinate PAME’s work plan activities. PAME postponed the 7<sup>th</sup> EA Workshop which is now included in the 2021-2023 work plan and the [4<sup>th</sup> meeting of the Arctic Shipping Best Practice Information Forum](#) was convened online 24-25 November 2021 with a narrower scope than originally planned.

## COORDINATION AND COLLABORATION WITH OTHER ARCTIC COUNCIL WGs

PAME actively pursues cooperation and collaboration with other Arctic Council WGs to contribute to improved efficiency and effectiveness of the Council. PAME collaborated with AMAP and CAFF in the development of the information briefs on MPAs and food security under change and with EPPR and SDWG on shipping activities.

AMAP, CAFF, and SDWG continue to be engaged in the joint EA EG, and PAME continues to make efforts to strengthen the communication between the EA EG co-chairs and relevant Arctic Council WGs.

PAME collaborates closely with CAFF on MPA-related work and implementation of the ARIAS Strategy and Action Plan and collaborated with all Arctic Council WGs on the development of the ML-RAP and the development of the 3<sup>rd</sup> *AMSP implementation Progress Report*. All WGs can also access the ASTD System.

## LIST OF PAME DELIVERABLES TO THE REYKJAVIK MINISTERIAL MEETING

PAMEs activities for SAO and Ministerial **approval** (5 activities):

1. Final Report and Proposed Updates to the *2009 Arctic Marine Shipping Assessment (AMSA) Report* Recommendations for Ministerial Approval (United States/Canada);
2. *Arctic Council-Arctic Regional Hydrographic Commission (ARHC) Joint Policy Statement on Hydrography in the Arctic*;
3. Two Information Briefs on Marine Protected Areas (MPAs) under change: (Finland/USA);
  - a. Information Brief on “Marine Protected Areas in a Changing Arctic”; and,
  - b. Information Brief on “Indigenous Food Security in the Arctic - Implications of a Changing Ocean”.
4. *Meaningful Engagement of Indigenous Peoples and Local Communities in Marine Activities (MEMA) Reference Guide* (United States/Canada/Aleut International Association (AIA)/Inuit Circumpolar Council (ICC)/Saami Council/Northern Forum); and,
5. *Regional Action Plan on Marine Litter in the Arctic* (Iceland, Norway, Sweden, Canada, Finland, Kingdom of Denmark, USA, AIA, OSPAR).

PAMEs activities for SAO and Ministerial **welcome** (7 activities):

1. *Compendium of Arctic Ship Accidents (CASA) Project, Final Report* (Joint PAME/EPPR Project) (United States);

2. *Underwater Noise Pollution from Shipping in the Arctic - Final Phase I Report* (Canada/Germany/World Wildlife Fund (WWF-Arctic));
3. *Report on Arctic State Safe and Low-Impact Marine Corridor Initiatives* (Canada/Iceland/AIA);
4. *Report on Arctic Marine Tourism: Development in the Arctic and enabling real change* (Iceland/Canada/UK);
5. *Update on the Arctic Protected Areas Indicator Report from 2017* (PAME and CAFF Secretariats);
6. *Technical Report on Modelling Arctic Oceanographic Connectivity* to further develop PAME's MPA toolbox (Sweden); and,
7. 3<sup>rd</sup> reporting on progress/implementation of the *2015-2025 Arctic Marine Strategic Plan (AMSP)*.

PAME activities for SAOs and Ministerial **information** (6 activities):

1. *Status Report on the Arctic Shipping Best Practice Information Forum* (Iceland/United States/Canada/PAME Secretariat);
2. Three Arctic Shipping Status Reports (USA/PAME Secretariat):
  - a. *The Increase in Arctic Shipping 2013-2019*;
  - b. *Heavy Fuel Oil (HFO) Use by Ships in the Arctic 2019*; and,
  - c. *Shipping in the Northwest Passage: Comparing 2013 to 2019*.
3. *Status Report on Offshore Oil and Gas Activities and Regulatory Frameworks in the Arctic* (United States); and,
4. Progress report on the EA-EG 2019-2021 Work (Norway/United States).

## PAME WORK PLAN 2021-2023

### Introduction

The PAME 2021-2023 WP was developed in accordance with: PAME's mandate; priorities identified and recommendations made within Arctic Council approved reports; direction provided from Ministerial declarations; follow-ups on recommendations from Arctic Council projects and the AMSP (2015-2025), which outlines the overall direction of the Arctic Council for the protection of the Arctic marine environment; and policy follow-up on the scientific and other relevant assessments of the Arctic Council. Additional project proposals may be developed within the scope of this WP between 2021-2023, subject to PAME approval, confirmed lead/co-lead commitment and financing.

Many projects have in-kind support from Arctic States and PPs. Additional support is requested through grant applications and State contributions.

## List of individual projects and activities

### Marine Protected Areas (MPAs) (6 activities)

*Continue the project on Modelling Arctic Oceanographic Connectivity, with the inclusion of the Central Arctic Ocean, to further develop PAME's Marine Protected Areas Toolbox*

**Lead:** Sweden

**Rationale and overall objective:** Ongoing climate change may facilitate increased access to the Arctic region, and potential new economic opportunities, but may also bring potential threats to the Arctic marine and coastal environments. These changes could benefit from more integrated approaches to Arctic marine management, including the consideration of MPA networks designed to aid in the conservation and sustainable use of the Arctic environment. Understanding seascape connectivity in the Arctic Ocean using oceanographic circulation models is one way to support MPA networks and sustainable use of the Arctic Ocean.

**Main activities:** Oceanographic connectivity modelling (details to be developed intersessionally)

**Timeline:** 2021-2023 (continuation from previous work plan)

**Funding:** (tbd)

final draft

*Different Ways of Knowing: Applying Indigenous and Local Knowledge and Scientific Information to Arctic Conservation Planning*

**Leads:** Canada, United States, AIA, ICC, Saami Council, WWF

**Rationale and overall objective:** To support respectful and effective partnerships to advance area-based management for conservation and sustainable use of the marine environment. The project will also seek to demonstrate how to connect locally-derived knowledge with sea- and ocean-scale scientific knowledge used in national and ocean scale systematic conservation planning and MPA network design.

**Main activities:** The project is Arctic-wide, and will build on previous work by PAME on Indigenous engagement in MPA planning by developing tools and best practices for engaging with Indigenous communities. It will:

- Develop and expand on case studies of how Indigenous Peoples and local communities are already addressing area-based management for conservation or monitoring programs to ensure healthy ecosystems; and,
- Develop guidance and tools to consider different forms of knowledge derived at specific spatial scales (e.g., locally, regionally, ocean-scale) for comprehensive MPA network planning, design and implementation and begin to develop a community of practice among

Arctic Indigenous communities to build capacity and share knowledge on area-based conservation planning and management, including through mentoring and opportunities for Indigenous youth and young professionals.

**Timeline:** 2021-2023

**Funding:** (tbc)

*Develop additional Information Briefs on the Arctic marine environment under change*

**Co-leads:** Finland and the United States. **Partner:** CAFF

**Rationale and overall objective:** Continue to develop Information Briefs (IBs) on the Arctic marine environment under change with the aim to leverage and synthesize information from the Arctic Council's work on this topic, communicate to decision makers and the public, and contribute to cross-cutting WG cooperation on common topics.

**Main activities:** Establish a joint PAME/CAFF scoping team to begin scoping possible content and areas of focus for an IB on a topic or topics related to joint PAME/CAFF activities under the broad theme of biodiversity, including consideration of what would be feasible and most valuable to present during this biennium. This may require a virtual workshop. Once the scope is clear, project co-leads will work with a drafting team inclusive of interested Arctic States, PPs, and relevant Observers to develop drafts of the IB for regular review by PAME and CAFF. Co-leads will aim for a completed product in time for submission to the SAOs for consideration for the 2023 Ministerial.

**Timeline:** 2021-2023 (continuation from previous work plan)

**Funding:** (tbc)

*Revisiting the Framework for a Pan-Arctic Network of MPAs (2015) for potential updates*

**Lead:** MPA Expert Group

**Rationale and overall objective:** Assess the need to update the Framework for a Pan-Arctic Network of MPAs based on international developments, including international best practices and previous Arctic Council initiatives, within the broader context of sustainable oceans management practices and climate change. The aim is to support the efforts of Arctic States to develop their MPA networks and chart a course for future collaborative planning, management, and actions for the conservation and protection of the Arctic marine environment.

**Main activities:** The PAME Marine Protected Areas (MPA) expert group will explore potential updates for consideration by the PAME working group to include:

1. Potential linkages to the UN Decade of Ocean Science for Sustainable Development;
2. Exploration of management tools; and,
3. Convene a meeting of MPA managers from the Arctic to share approaches, opportunities and challenges, as well as contribute to revisiting of MPA Framework Document.

**Timeline:** 2021-2023

**Funding:** In-kind

*Other Effective Area-based Conservation Measures (OECM) in the Arctic Marine Environment (joint PAME-CAFF Project)*

**Co-leads:** Kingdom of Denmark, Canada, United States.

**Rationale and overall objective:** This project will provide an overview of the current range and understanding of international and national criteria used for identification of “Other Effective Area-Based Conservation Measures” (OECM’s) in the Arctic. This would include potential case studies on the approach Arctic States have applied to identify OECM’s in their national waters, and how those are contributing to broader marine conservation objectives. In addition, it would facilitate an exchange of information among Arctic States on the range of information and application of OECMs, and potentially contribute to updates of the Framework for a Pan-Arctic Network of MPAs. Include updated references and information on OECMs, consistent with what will be developed as part of this project into the updated PAME/CAFF “Indicator Report” (to be re-named “Status and Trends for Arctic Conservation Measures”).

**Main activities:** The project will be implemented by CAFF/PAME through a joint steering committee to be established to guide the work.

1. Project co-leads will gather existing sources on OECM criteria and Arctic State’s approaches to identifying OECMs, and relevant case studies. Provide relevant updated information on OECM’s to the PAME/CAFF Indicator report revision (spring 2021);
2. A report will be developed, based on the results gathered, which would include an overview of OECM criteria and application in the Arctic context, and Arctic relevant case studies; and,
3. Convene a workshop or session at the 2022 IMPAC V Congress in Vancouver (potentially in partnership with the Convention on Biological Diversity (CBD) Secretariat/others) to bring together Arctic marine conservation practitioners and managers to share information on the application of OECMs in the Arctic.

**Timeline:** 2021-2023

**Funding:** In-kind

### *Expansion and refinement of the MPA-Network Toolbox*

**Lead:** MPA Expert Group. Partners: CAFF, WWF, Circumpolar Conservation Union (CCU)

**Rationale and overall objective:** Continue enhancing PAME's work on a Pan-Arctic Network of Marine Protected Areas, taking into account any potential updates to the *Framework for a Pan-Arctic Network of MPAs* (2015) and the AMSP strategic action 7.2.10.

**Main activities:** This work will take into account outcomes from previous MPA workshops (4 workshops), the *Modelling Arctic Oceanographic Connectivity* study, updating exercise of the *Framework for a Pan-Arctic Network of MPAs* (2015) (MPA project #4 above), and work on other relevant projects from the 2021-2023 biennium.

**Timeline:** Ongoing/continuation from previous work plan.

**Funding:** In-kind

#### Arctic Marine Shipping (12 activities)

### *Arctic Shipping Status Reports (ASSR)*

**Co-leads:** United States, PAME Secretariat

**Rationale and overall objective:** To provide a snapshot of Arctic shipping activities by utilizing PAME's ASTD System to generate topical, fact-based, user-friendly reports.

**Main activities:** Develop user-friendly, illustrative information reports on Arctic shipping activities that describe notable trends, highlight important developments, and depict interesting and important information. The goal is to produce 3-4 reports each year and, once approved by PAME, disseminate them to the general public and other stakeholders.

**Timeline:** 2021-2023 (continued from previous work plan)

**Funding:** \$85 000 USD (in-kind)

### *New Low Sulphur Fuels, Fate, and Behavior in Cold Water Conditions (PAME-EPPR Joint Project)*

**Lead:** Norway

**Rationale and overall objective:** To expand our knowledge of the toxicity, fate, and behavior of new low sulphur fuel oils in cold water conditions. The results will support integration into marine oil spill prevention, preparedness, and response activities.

**Main activities:**

1. Develop and distribute a questionnaire on fuel used by ships in the Arctic;
2. Convene an expert workshop with industry representatives to advance the project;
3. Collect samples of fuels;
4. Analyze the fate and behaviour of the fuel samples; and,
5. Analyze the toxicity of these fuels.

**Timeline:** 2021-2023 (continued from previous work plan)**Funding:** \$450 000 USD (including in-kind)***Collaboration with the Arctic Regional Hydrographic Commission (ARHC)*****Lead:** United States, (others, tbc)**Rationale and overall objective:** To foster greater communication between PAME and ARHC in line with the SAO approved (Nov 2019) non-binding MOU between these two bodies to support Arctic maritime safety and the protection of the Arctic marine environment.**Main activities:** In collaboration with the ARHC:

- Consider the development and dissemination of reports and other information that support navigational safety and environmental protection in the Arctic along the lines of the *Arctic Navigation Risk* summary bulletin issued by the ARHC in 2017 (available [here](#));
- Review the potential interoperability of databases (including the ASTD System) that contain Arctic geospatial information to determine their potential utilization across platforms for improved analysis; and,
- Undertake work to issue a 2023 update of ARHC's 2018 Arctic hydrography risk assessment (available [here](#)) by designating a PAME representative to communicate with the ARHC on the approach, structure, usability and other aspects of the update.

**Timeline:** 2021-2023**Funding:** In-kind

## *Underwater Noise in the Arctic: Understanding Impacts and Defining Management Solutions - Phase II*

**Co-leads:** Canada, United States, WWF

**Rationale and overall objective:** Build on the research findings from both the 2019 *Underwater Noise in the Arctic: State of Knowledge Report* and 2021 *Underwater Noise Pollution from Shipping in the Arctic Report* to further develop decision-support tools for minimizing impacts from vessel underwater noise in the Arctic.

**Main activities:** Three steps:

1. Improve understanding of underwater noise generated by shipping in the Arctic;
2. Develop operational and technological scenarios; and,
3. Share findings of this project to relevant Arctic Council and other multilateral fora.

**Timeline:** 2021-2023

**Funding:** tbc

## *Systematically Strengthening Observer Engagement in PAME's Shipping Work*

**Co-leads:** United States, Republic of Korea, Poland, Northern Forum

**Rationale and overall objective:** This project will identify options for leveraging Observer interest, expertise and engagement in PAME's shipping work.

**Main activities:** To continue work on the 2019-2021 WP project titled "A Framework for more Systematically Engaging with Observers on Shipping Related Matters." It will be further developed and elaborate on opportunities for Observers to contribute to and/or support PAME's shipping-related work. Planned deliverables include a prioritized list of recommendations that can be pursued by PAME to strengthen Observer engagement and an accessible primer/frequently asked questions (FAQs) manual with important basic information that every PAME Observer should know.

**Timeline:** 2021-2023 (continued from previous work plan)

**Funding:** In-kind

### *Arctic Ship Traffic Data (ASTD) System*

**Co-leads:** United States, Norway, PAME Secretariat

**Rationale and overall objective:** Continue to strengthen the ASTD System by augmenting its functionality and facilitating access to eligible stakeholders.

**Main activities:**

1. Augment the ASTD System with new functionalities, adding new data layers and additional data, enhancing its analytical and report generating capabilities;
2. Facilitate access for eligible users, particularly Arctic States, PPs, Observers, and Arctic Council subsidiary bodies; and,
3. Refine the ASTD System application forms and instructions to clarify ambiguities and make easier to use.

**Timeline:** 2021-2023 (continued from previous work plan)

**Funding:** as per the *Cooperative Agreement among the Arctic States Regarding Arctic Ship Traffic Data Sharing* (2017) (7 Arctic States x \$4000/per year in addition to Level III access fees, in-kind contributions and data streams from the co-leads).

final draft

### *The Arctic Shipping Best Practice Information Forum*

**Co-leads:** Russian Federation, United States, Canada

**Rationale and overall objective:** To support the effective implementation of IMO's Polar Code and, more broadly, sustainable Arctic shipping.

**Main activities:** The project will convene at least two annual Forum meetings (virtual or in-person as appropriate) of Participants and continue the development and expansion of the Forum's web portal ([arcticshippingforum.is](http://arcticshippingforum.is)). The web portal includes hundreds of links to information related to the effective implementation of a compliance with IMO's Polar Code. It also serves as a resource hub of information, guidance, and guidelines that aid decision makers involved in Arctic marine navigation and those affected by maritime operations related to the Polar Code. The project will also explore the possibility of modest refinements to the Forum's 2017 Terms of Reference (ToR).

**Timeline:** A minimum of two annual meetings during the 2021-2023 period (continued from previous work plan)

**Funding:** In-kind contributions and voluntary Forum Participant donations.

## *Interpretation of the Polar Code*

**Lead:** Norway

**Rationale and overall objective:** The adoption of the Polar Code was a first step towards ensuring safe and sustainable shipping in the Arctic. In order to ensure the success of the Polar Code there is a need to work towards facilitating, where applicable, consistent interpretation of the Code.

**Main activities:** Building off of the survey submitted during the 2019-2021 WP period, this project will convene a correspondence group of Arctic State Polar Code subject matter experts to analyze the survey results, and consider developing a paper containing Polar Code interpretations for possible submission to the IMO.

**Timeline:** 2021-2023 (continued from previous work plan)

**Funding:** In-kind

## *Wastewater Discharges from Vessels in the Arctic – A Survey of Current Practices*

**Co-leads:** Iceland, WWF, CCU

**Rationale and overall objective:** To better understand current practices of Arctic ship operators related to wastewater discharges in the Arctic, specifically grey water, sewage, and exhaust gas cleaning system (scrubber) effluent.

**Main activities:** The project will conduct a survey directed at shipping operators and industry trade associations. A third-party contractor will be hired to conduct the confidential survey. Non-attributed results will be summarized, and a report written and shared with PAME members for comment, review, and finalization. By collaborating with industry associations like the Arctic Expedition Cruise Operators (AECO), the consultant will conduct outreach and request interviews of current shipping operators, including cruise and tourism, pleasure craft, ferries, bulk carriers, fishing, research, tankers, and community and development project re-supply.

The survey findings may contribute to, and inform, future PAME work on Arctic Marine Tourism and the Arctic Shipping Best Practice Information Forum. Furthermore, it will inform potential future dialogue within the Arctic Council as well as ongoing discussions at the IMO.

**Timeline:** 2021-2023

**Funding:** \$37 000 CAD in addition to in-kind support

### *Arctic Port Reception Facilities Inventory*

**Lead:** United States

**Rationale and overall objective:** Develop a current inventory of Arctic port reception facilities to assess where there may be infrastructure gaps in light of increasing Arctic shipping traffic.

**Main activities:** The project will update the 2012 paper titled [“Specially Designated Arctic Marine Areas and Port Reception Facilities”](#), which summarizes the capabilities and capacities of port reception facilities in the Arctic. The update includes a review of the existing waste infrastructure within each Arctic State and the development of a mapping data layer for incorporation into PAME’s ASTD System. Explore collaboration with the Marine Litter expert group on information relevant for marine litter.

**Timeline:** 2021-2023

**Funding:** In-kind

### *Arctic Arrangement for Regional Reception Facilities*

**Co-leads:** United States, Russian Federation

**Rationale and overall objective:** Amend relevant MARPOL annexes to allow Arctic States to meet their MARPOL obligations of providing adequate port reception facilities for ship waste through a regional arrangement in the Arctic. Due to the Arctic’s unique circumstances (remoteness, severe weather, limited infrastructure and resources) regional arrangements are a practical means of meeting the requirements.

**Main activities:** The project will develop language for the proposed draft MARPOL amendments that, consistent with the decision made by the 74<sup>th</sup> Session of the IMO’s Marine Environmental Protection Committee (MEPC), would implement an Arctic Regional Arrangement for Port Reception Facilities. Such proposed draft language would be part of a joint submission by Arctic States to the 9<sup>th</sup> meeting of IMO’s Sub-committee on Pollution, Prevention and Response (PPR) in 2022. This project also includes collaboration with the Marine Litter expert group (ML EG) on information relevant to marine litter.

**Timeline:** 2021-2023 (continuation from previous work plan)

**Funding:** In-kind

*Raising awareness in the Arctic Council of the provisions of the 2012 Cape Town Agreement for the safety of fishing vessels and the experience gained in the implementation process by Arctic States and other nations, recognizing the importance of fishing vessel safety in the Arctic due to the increased traffic of fishing vessels in the region.*

**Co-leads:** Iceland, Spain, IMO.

**Rationale and overall objective:** The project contributes to the PAME approved AMSA recommendations I(B): *IMO Measures for Arctic Shipping*, which is for the Arctic States to “...cooperatively support efforts at the IMO to strengthen, harmonize and regularly update international standards for vessels operating in the Arctic.” Successive PAME Records of Decision have recognized IMO’s current emphasis in raising awareness regarding the provisions of the Cape Town Agreement. The aim is to complement IMO’s efforts and highlight the experience gained in the implementation process by Arctic States and other nations

**Main activities:**

- Establish a Correspondence Group;
- Develop an Arctic Shipping Status Report (ASSR) on fishing vessel activities in the Arctic with its project co-leads;
- Develop a Summary Report that includes the findings from the ASSR Report, and highlights the provisions of the Cape Town Agreement for the Safety of Fishing Vessels, that includes:
  - Information on challenges Arctic States or Observer States may have had in ratifying the Agreement;
  - Information on national legislation that may be considered to cover wholly or partially the Agreement; and,
  - An overview of such challenges and national legislative information with suggestions for a way forward.
- The summary report will be presented to PAME for consideration; and,
- Convene an online webinar for PAME Members and interested Arctic Council Working Groups where States share their experience, and challenges that may have been identified.

**Timeline:** 2021-2023

**Funding:** \$80 000 USD (including in-kind)

Protection from Arctic Invasive Species (1 activity)

*Marine Invasive Alien Species in Arctic Waters (joint PAME-CAFF Project)*

**Leads:** Kingdom of Denmark, Canada, Norway. **Partner:** CAFF.

**Rationale and overall objective:** Contribute to the implementation of the *Arctic Invasive Alien Species Strategy and Action Plan* (ARIAS 2017) by improving the knowledge base for CAFF and PAME on specific actions in the ARIAS Strategy and Action plan that focus on the risk of potential transfer of alien invasive species by ships via ballast water (BW) and biofouling (BF) into and within Arctic waters.

**Main activities:** The project will compile a list of known nonindigenous species, including their current distributions, in Arctic waters. Presently, most Arctic States have data and knowledge that can be included directly in the project, which will also include a list of data sources. Furthermore, the project will review methods and tools used for risk assessment of invasive species, vectors and pathways, and identify those best suited for the project's risk assessments, as well as an assessment of the probability of nonindigenous species to be transferred by ships into Arctic waters, and between different ecoregions in the Arctic, presently and in the year 2100.

**Timeline:** 2021-2023

**Funding:** In-kind

final draft

Marine Pollution in the Arctic: Marine Litter in the Arctic (4 activities)

*Develop an Implementation Plan for the Regional Action Plan on Marine Litter in the Arctic (ML-RAP)*

**Leads:** Kingdom of Denmark, Finland, Norway, and United States

**Rationale and overall objective:** The overall objective is to develop an Implementation Plan for the ML-RAP in close coordination and cooperation with other Arctic Council WGs and with overall guidance from the SAOs and Ministers. The plan will support coordination, collaboration, and reporting on marine litter-related activities across the Arctic Council WGs and Arctic States, including the integration of marine litter activities in multiple WG work plans. Co-leads will also engage with Indigenous and local communities and relevant stakeholders.

**Main activities:**

1. **Develop an Annotated Outline:** Co-leads will prepare an annotated outline of the ML-RAP Implementation Plan and share with the other Arctic Council WGs to seek their input and feedback;

2. Develop a Roadmap for Implementation: Co-leads, in close collaboration with other Arctic Council WGs, will develop a Roadmap to guide implementation. The Roadmap may include an analysis of activities to date, the identification of gaps and needs, and criteria for an iterative priority-setting process, among other steps; and,
3. Establish an Implementation and Reporting Process: The PAME WG, in close collaboration with other Arctic Council WGs, will develop an implementation and reporting process, including a status report every two years for the SAOs and Ministers. Such reporting will be a cross-cutting WG effort with the aim to convey the status of ML-RAP Strategic Actions using a simple template such as that used by the AMSP or AMSA. This report will also inform biennial WG work plans and include domestic activities as well as Arctic Council projects.

**Timeline:** 2021-2023

**Funding:** \$155 000 (including in-kind)

### *Arctic Coastal Cleanup*

**Leads:** Norway. Arctic States and PPs are welcome to co-lead.

**Rationale and overall objective:** The project will contribute to enhancing efforts to remove litter from Arctic beaches and waterways. The project will establish partnerships with local organizations, community leaders and regional experts to increase the knowledge and awareness of the problem throughout the Arctic, contributing to reducing discharges of marine litter to the Arctic in the long term.

**Main activities:**

1. Start with a pilot project in 2021 to identify some areas with high levels of litter and establish methods and models for organization of clean-up actions, given the special Arctic conditions;
2. Based on the experiences from the pilot project, the project will be extended to enable partners in all Arctic regions to participate; and,
3. Highlight the impact of marine litter on the Arctic's unique environment, collect data on types and sources of the plastic litter found, and build awareness and partnerships which can have a positive effect both on clean-up and measures to reduce discharges of marine litter also in the long term.

**Timeline:** 2021-2023

**Funding:** \$220 000 USD (in addition to in-kind support)

### *Fishing Practice & Gear Inventory: Enhancing Understanding of Abandoned Lost or otherwise Discarded Fishing Gear (ALDFG)*

**Leads:** Norway, United States. Other partners are welcome to co-lead.

**Rationale and overall objective:** This project would serve as an implementation activity under one of the strategic actions related to addressing ALDFG in the ML-RAP by offering a baseline understanding of existing fishing activity and gear use in a given area. The overall goal of the project is to increase understanding and develop reliable informational resources of fishing activity in the Arctic and near-Arctic, in order to inform gear identification as part of monitoring or removal. This additional knowledge could help inform ALDFG prevention and intervention efforts by understanding differences in gear composition over space, and eventually over time.

**Main activities:**

1. Collect information on current practices gathered from Arctic States and non-Arctic States fishing in the area, which may help identify which gear could contribute to marine litter in the Arctic;
2. Categorize and classify available records of ALDFG that have been recovered to understand potential sources, pathways, and fates of ALDFG and associated equipment, especially as fishing effort shifts farther north to follow biomass;
3. Design a visualization tool and structure to present data in a common format. A visualization structure would incorporate intuitive representation of fishing areas by country, target species, fishing gear by type, as well as any additional parameters identified. This could take the form of static maps or dynamic online tools, depending on assessed utility and resource availability; and,
4. Conduct outreach and communication on the data and lessons learned by providing information to partners on the availability and location(s) of data in order to inform and target ALDFG prevention and intervention efforts.

**Timeline:** 2021-2023

**Funding:** tbd

### *Marine Litter Communication and Outreach Activities*

**Leads:** The PAME Secretariat

**Rationale and overall objective:** Development of outreach and communications material in support of the implementation of the ML-RAP including a Communication Plan.

**Main activities:**

1. ML-RAP Communication Plan;
2. Plastic in a bottle;
3. Develop youth engagement toolkit in cooperation with CAFF International Arctic Youth Engagement Strategy;
4. Project video; and,
5. Marine Litter graphics site on the PAME website for outreach purposes.

**Timeline:** 2021-2023 (continued from previous work plan)

**Funding:** in-kind

Ecosystem Approach to Management (EA) (7 activities)

*7<sup>th</sup> EA Workshop on values and valuation of the cultural, social and economic goods and services produced by the ecosystems*

**Leads:** Norway and the United States in close collaboration with the EA expert group

**Rationale and overall objective:** To identify, understand and find ways to benefit from the diverse systems of values and valuation of nature in the shared ecosystems of an increasingly connected Arctic.

- Identify and understand diverse values held for nature;
- Explore the relationships between values and valuation; and,
- Explore ways to incorporate diverse systems of values and valuation into the Ecosystem Approach to management.

**Main activities:** Convene the 7<sup>th</sup> EA workshop in 2022 with focus on element No. 5 of the EA framework: Value the cultural, social, and economic goods and services produced by the ecosystem.

**Timeline:** 2022 (continuation from previous work plan)

**Funding:** In-kind

*Third International Science and Policy Conference on Implementation of the Ecosystem Approach to Management in the Arctic*

**Leads:** Norway and the United States in close collaboration with the EA expert group

**Rationale and overall objective:** Topics that include common understandings on implementation; cooperation and joint work; challenges and solutions; and other aspects as developed by a conference planning group.

**Main activities:** A planning group will be established in 2021 with representatives of co-conveners and others. During 2022 this group will develop the program, identify and invite speakers, arrange for editing and publication of the proceedings, solicit sponsors, and provide for other operational details of the conference. Presentations, panels, and discussion groups at the conference (tentative 2023 or 2024) will review information, experiences, and examples of EA implementation in Arctic waters, as well as other aspects as developed by a conference planning group. A Conference Report will also be prepared during 2023-2024.

**Timeline:** 2021-2023 (continuation from previous work plan)

**Funding:** In-kind

### *Integrated Ecosystem Assessment (IEA) of the Central Arctic Ocean (WGICA)*

**Leads:** Norway, United States; **Partners:** ICES, PICES

**Rationale and overall objective:** Continue the development of Integrated Ecosystem Assessment (IEA). Continue to report on developments within ICES/PICES/PAME WG on Integrated Ecosystem Assessment (WGICA) as well as other ICES activities on IEA.

**Main activities:**

1. WGICA to draft Report on human activities (Part 1) and climate and vulnerability assessment (Part 2) of the Central Arctic Ocean (CAO); and,
2. Coordinate and collaborate with the Shipping Expert Group and other AC WGs, as relevant.

**Timeline:** 2021-2023 (ongoing cross-cutting initiative by ICES/PICES and PAME)

**Funding:** In-kind

### *Revise the Ecosystem Approach Framework (EA) and develop a tool for following EA implementation in the Arctic LMEs*

**Leads:** Norway and the United States in close collaboration with the EA expert group

**Rationale and overall objective:** Elaborate from the six-point EBM framework described in the 2019 Guidelines for Implementing an Ecosystems Approach, and assess relevant EA information within the Arctic Council with the aim to strengthen the integration of an ecosystem approach into assessments and management recommendations.

**Main activities:**

1. Reviewing and synthesize existing EA literature from reports of the EA EG and relevant EA literature globally (literature review);
2. Describing new element of the EA framework (“Monitoring” and “Advisory products”)
3. Producing a new EA circular figure with a in depth explanation;
4. Map and summarize information from Arctic Council WGs of relevance to EA;
5. Produce a communications strategy (e.g., conferences, workshops, Toolbox to guide future EA implementation); and,
6. Develop a tool for ongoing reporting mechanism on EA implementation in the Arctic LMEs.

**Timeline:** 2021-2023

**Funding:** In-kind

### *Report on development in defining or setting Ecological objectives*

**Leads:** Norway and the United States in close collaboration with the EA expert group

**Rationale and overall objective:** The objective is to continue to integrate the ecosystem approach into assessments and management recommendations through follow-up to the 2013 EBM marine-related recommendations, taking into account previous work on LMEs, and new and ongoing EA activities of cross-cutting nature.

**Main activities:** This project will report on developments in defining or setting ecological quality objectives in the context of EA implementation in national and international processes.

**Timeline:** 2021-2023 (continuation from previous work plan)

**Funding:** In-kind

### *Synthesis Report on Ecosystem Status, Human Impact and Management Measures in the Central Arctic Ocean (CAO)*

**Co-leads:** Canada, Finland, Sweden, United States, WWF

**Rationale and overall objective:** The aim of this project is to synthesize relevant information on the status, trends and projected changes in the CAO LME, human activities and pressures in the area, and the current management measures in place in order to inform future policy and decision making.

**Main activities:** A synthesis report will be prepared drawing on published information and reports by the PAME/ICES/PICES Working Group on the Central Arctic Ocean (WGICA), other Arctic Council working groups and other information sources, such as the Central Arctic Ocean (CAO) Fisheries

Agreement Provisional Scientific Coordinating Group. This project will also specifically contribute to the WGICA report *Human Activities, Pressures, and the Impact on the Ecosystems of the Central Arctic Ocean – Measures and Knowledge Gaps* to be completed within the same timeline.

**Timeline:** 2021-2023

**Funding:** In-kind

### *Concept paper on further cooperation under the Arctic Council on Ecosystem-Based Management (EBM/EA) of Arctic marine ecosystems*

**Leads:** Norway in close collaboration with the EA expert group

**Rationale and overall objective:** The need for ecosystem-based management (EBM) to ensure sustainable use and protection of the marine environment is widely recognized by the international community, the Arctic Council, and the Arctic States and Permanent Participants of the Council. EBM, therefore, is a suitable framework for efforts to enhance cooperation on Arctic marine stewardship under the Arctic Council. This concept paper will explore the case for enhanced transboundary cooperation and coordination of EBM of the Arctic marine environment. A set of actions will be proposed to develop such cooperation further in the coming four years.

**Main activities:** Review the concept paper and provide input and further guidance to SAOs, including expert advice and recommendations to be discussed at the earliest possible SAO meeting of the incoming Russian Chairmanship.

**Timeline:** 2021-2023

**Funding:** In-kind

#### Resource Exploration and Development (4 activities)

### *Meaningful Engagement of Indigenous Peoples and Local Communities in Marine Activities (MEMA): Outreach and Next Steps*

**Leads:** United States, Canada, AIA, ICC, Saami Council and Northern Forum.

**Rationale and overall objective:** This project will prepare the findings of the MEMA II Report, MEMA Reference Guide and the MEMA Database available to Indigenous Peoples, local communities, and proponents of actions. The outreach effort will focus on Indigenous Peoples and local communities in a culturally appropriate way, and in ways that enable proponents of actions to use the findings.

**Main activities:** To develop outreach material and explore next steps to encourage the use of the *MEMA Reference Guide* as a resource for all Arctic Council projects and other Arctic activities. The widely distributed outreach material will include a brochure on the findings the *MEMA II Report*. The PAME Secretariat will aim to produce MEMA outreach videos or other multi-media products, in collaboration with Indigenous Peoples

**Timeline:** 2021-2023

**Funding:** In-kind (tbc for multi-media products)

### *Management of Arctic Marine Oil and Gas Associated Noise*

**Lead:** United States, UK, WWF.

**Rationale and overall objective:** To take stock of the existing management practices for avoiding or mitigating effects of noise from Arctic oil and gas operations; and, to consider if specific technical guidance related to noise from Arctic oil and gas operations is needed.

**Main activities:**

1. Take stock of the practices for noise reduction or elimination related to all offshore or nearshore oil and gas operations in the Arctic;
2. Hold a one or two-day workshop on the management practices for mitigating noise from Arctic offshore oil and gas operations and prepare a workshop report; and,
3. Consider these activities to determine if specific technical guidance would be useful (for a future work plan).

**Timeline:** 2021-2023

**Funding:** In-kind in addition to \$10 000 USD for workshop and \$25 000 USD for consultant to facilitate workshop and prepare report.

### *Update the Arctic Offshore Oil and Gas Regulatory Resource (AOOGRR)*

**Lead:** United States in close collaboration with PAME Secretariat

**Rationale and overall objective:** The AOOGRR provides easily and updatable web-based information and data (for e.g., documents, websites, relevant fora, networks, etc.). The AOOGRR facilitates the sharing of current information on best practices from different Arctic countries and allows better communication in the management, regulation and enforcement of Arctic offshore oil and gas operations, while allowing all stakeholders easy access to this information. PAME will do a

comprehensive update of the web resources of the regulatory agencies and ministries responsible for offshore oil and gas activities.

**Main activities:**

1. Check the current AOGRR for broken or out-of-date links;
2. Add any new web sites or links; and,
3. Seek clarifications from Arctic States on any website questions.

**Timeline:** 2021-2023

**Funding:** In-kind

*Existing Waste Management Practices and Pollution Control for Marine and Coastal Mining*

**Lead/Co-leads:** Canada, Kingdom of Denmark.

**Rationale and overall objective:** The first objective is to take stock of the current and planned Arctic coastal and near shore mining operations and hold a workshop to elaborate on best practices for marine disposal of waste rock, tailings, sediments and water. The second objective is to identify best practices for offshore discharge of mining residuals and prepare a report.

**Main activities:** This project will inventory Arctic marine and coastal mining operations and planned operations, and identify practices for offshore discharge of mining residuals including waste rock, tailings, sediments and water.

**Timeline:** 2021-2023

**Funding:** In-kind in addition to \$10 000 USD for workshop and \$25 000 USD for consultant to facilitate workshop and prepare report.

Arctic Marine Strategic Plan (AMSP)

*Targeted update of the Arctic Council Arctic Marine Strategic Plan (AMSP 2015)*

**Leads:** Norway, United States, Canada; **Partners:** all Arctic Council WGs

**Rational and overall objective:**

1. Update strategic actions of the AMSP and integrate new ones, as relevant, to reflect the changes underway in the Arctic marine environment; and,

2. Enhance integration, coordination, and collaboration on marine-related activities among the AC WGs.

**Main activities:** An outreach and scoping phase will be developed to focus the update on priority topics as identified by Ministerial and SAO priorities and mandates. Representatives from the other Arctic Council WGs, PPs and other relevant stakeholders will be invited to contribute towards updating the AMSP. The project includes:

1. Identifying some potential new thematic areas of work and develop an annotated list of possible strategic actions; and,
2. Convening meetings with the Arctic Council WGs back-to-back with SAO meetings to seek additional inputs and feedback from the WGs. Further, PAME will seek direct input from the SAOs through their regular meetings and others as relevant.

**Timeline:** 2021-2023

**Funding:** \$175 000 USD and In-kind

#### *4<sup>th</sup> AMSP Implementation Status Report 2021-2023*

**Leads:** PAME HoDs, PAME Secretariat, in collaboration with the other Arctic Council WGs

**Rational and overall objective:** To track progress on implementation of the AMSP 40 Strategic Actions and report on its status.

**Main activities:** The project will develop the 4<sup>th</sup> “AMSP Implementation Status Report” in collaboration with other Arctic Council WGs for the period 2021-2023 for submission to the Arctic Council Ministerial meeting in 2023.

**Timeline:** 2021-2023

**Funding:** In-kind

## ADMINISTRATION

The PAME International Secretariat is based in Akureyri, Iceland. The Secretariat has a staff of three: 1) the Executive Secretary; 2) Executive Assistant; and, 3) Project Manager. An administrative budget to cover the operating costs of the Secretariat, including inter alia, salaries, travel costs, and website-related costs, is established for each calendar year, differentiating between project funding and operating costs. As the host country for the International Secretariat, Iceland provides approximately half of the annual country contributions, as decided at the time of the establishment of the PAME Secretariat (1999) and consistent with the approach taken for the operation of the CAFF Secretariat. The remainder of the budget comes from voluntary contributions by the seven other Arctic States

(\$30,000 USD per year). A budget is presented annually by the Secretariat. The budget and annual voluntary contributions may be evaluated, as needed, to meet Secretariat operations. Arctic States can provide additional finances to separate projects, which will also support the work of the Secretariat. PAME cooperates closely with CAFF to share fixed Secretariat overhead costs.

Finland has chaired, and the United States has co-chaired, the PAME WG during 2019–2021 period. PAME will be chaired by Sweden during the 2021–2023 period. The PAME national HoDs have decided on a set rotation for hosting of PAME meetings and chairing of PAME, which States may elect to amend.

PAME has held four WG meetings, one Arctic Marine Tourism workshop, two Arctic Shipping Best Practices Information Forum meetings, in addition to a number of meetings of the PAME EGs during the Icelandic Chairmanship of the Arctic Council.

## COMMUNICATION AND OUTREACH

The lead of PAME's overall communications activities is the PAME Secretariat. PAME develops necessary project-related communications, which include brochures, promotional materials, websites, video production, event hosting, presentations at key events, and press inquiries. PAME participates in relevant international symposia, meetings and other appropriate venues to communicate PAME's activities. PAME's work plan includes information outreach and efforts to increase cooperation and collaboration with international and regional organizations to include the liaising and exchange of information with relevant organizations and programs (e.g., UNEP Regional Seas Programme), and other regional programs. PAME's homepage serves as the main outreach and communication tool ([www.pame.is](http://www.pame.is)) in addition to PAME's Facebook and Twitter accounts. PAME also collaborates closely with the Arctic Council Secretariat (ACS) communications team in its outreach efforts.

Outputs of PAME's activities for information include, e.g.:

- Arctic Shipping Status Reports;
- Arctic Marine Tourism report and trend analysis information online;
- Underwater Noise maps on the PAME website;
- Arctic Shipping Best Practice Information Forum Web portal;
- Arctic Ship Traffic Data Project Database (ASTD System);
- MPA Information Briefs;
- Plastic in a Bottle;
- Marine Litter Library;
- MEMA database; and,
- Various other communication and outreach products.

# Emergency Prevention, Preparedness and Response (EPPR)

final draft

## EPPR MANDATE

The Emergency Prevention, Preparedness and Response (EPPR) Working Group (WG) is mandated to contribute to the best possible preparedness and response to environmental emergencies, search and rescue, radiological and nuclear incidents, and other accidents in the Arctic. Its work is guided by the [EPPR Strategic Plan Framework](#) of 2016. While not an operational response organization, members of the WG conduct projects to address gaps, prepare strategies, share information, collect data, and cooperate with relevant partners on capabilities and research needs in order to prepare for future challenges and maximize the use of resources available in the Arctic. Projects and activities include for example the development of guidance and risk assessment methodologies, the coordination of response exercises and training, and exchange of information on best practices regarding the prevention, preparedness and response to accidents and threats from acute releases of pollutants and radionuclides, search and rescue and the consequences of natural and human-induced disasters.

EPPR is assigned the responsibility for maintaining the Operational Guidelines that implement the [Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic](#) (MOSPA Agreement) to which all Arctic States are parties. EPPR also supports the [Agreement on Cooperation on Aeronautical and Maritime Search and Rescue](#) (Arctic SAR Agreement) by, for example, addressing relevant lessons learned from SAR exercises and real incidents.

## ACHIEVEMENTS 2019-2021

### Summary of achievements 2019-2021

During 2019-2021, EPPR participated in the Chairmanship's Strategic Thinking Retreat in Tromsø, the SAO Marine Mechanism (SMM) webinar series, the Expert Group on Black Carbon and Methane II (EGBCM II), the virtual Arctic Resilience Forum and other relevant meetings of Arctic Council subsidiary bodies as well as external fora when appropriate. EPPR was able to maintain the quality and the pace of the work undertaken for the period, despite the ongoing pandemic, by adapting to online formats. Most of the projects moved forward as planned remotely, with only minor delays. The number of participants that gather in EPPR meetings has been on the rise during the past few chairmanship periods, and the development has also contributed to enhanced participation by PPs and Observers in EPPR. Online meetings have supported this development.

In follow up to the [Rovaniemi Joint Ministerial Statement 2019](#), EPPR has, inter alia, undertaken the following work over the course of 2019-2021.

## Implementation of the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA) Agreement

The EPPR Marine Environmental Response Expert Group (MER EG) promotes the implementation of EPPR initiatives specific to the MOSPA Agreement, maintaining the Operational Guidelines of the MOSPA Agreement, and other initiatives and projects related to the core theme of marine environmental response approved by the EPPR. Functional tabletop exercise (TTX) Arctic Guardian of the MOSPA was held on 27 October 2020, under the leadership of Iceland and in cooperation with the EPPR MER EG and the Arctic Coast Guard Forum (ACGF). MER EG established a MOSPA Joint Design Team (JDT), which engaged in the exercise planning process together with the ACGF team. The TTX successfully tested connectivity for each competent authority and allowed an opportunity for each state to analyze internal capacity to provide an offer of assistance. EPPR finalized the *After-Action Report (AAR)* of the TTX, which highlights observations, recommendations and best practices, including recommendations for updating the Operational Guidelines.

The MOSPA JDT led the planning and work for the joint ACGF-EPPR Arctic Guardian 2021 live exercise, which was eventually converted into an online workshop format due to the Covid-19 pandemic. The exercise hosted by Iceland took place 12-14 April 2021 and was successfully carried out on the EPPR GoToMeeting platform, receiving excellent feedback from the training audience. The scenario in the exercise was a continuation from the October 2020 TTX. Learnings will be captured in the after-action report and will feed in the future work.

MOSPA Appendix IV, Operational Guidelines, was updated by the MER EG in administrative manner, following the recommendations from the past MOSPA TTX during the Finnish Chairmanship of the Arctic Council (2017-2019). New fillable forms were tested during the TTX and included in the update along with a contact information sheet.

A follow-up workshop of the legal issues of the MOSPA Agreement report was organized in conjunction with the December 2019 EPPR-II meeting in Reykjavik.

## Implementation of the Arctic Search and Rescue (SAR) Agreement

The EPPR SAR Expert Group (SAR EG) works to promote and assess implementation of the Arctic SAR Agreement. Its mandate includes acting as a facilitator for high-level, intergovernmental cooperation on Arctic SAR issues. The specific goal of the SAR EG is to identify key lessons from Arctic incidents and exercises and communicate necessary mitigation or remedial actions to Arctic States, regional fora, such as the Arctic Coast Guard Forum (ACGF), and international bodies, such as the International Maritime Organization (IMO). The SAR EG supports existing fora by leveraging high-level engagement with national and scientific institutions.

The SAR EG completed a crosswalk of the articles of the SAR Agreement during the Icelandic Chairmanship and held a focused session with the MER EG on the [Viking Sky incident](#) in conjunction of the June 2019 EPPR-I meeting in Bodø. TTX Arctic Guardian in October 2020 held under the Icelandic leadership included a transition from search and rescue to marine environmental response, which involved the SAR EG both in exercise planning and participation.

## Establishment of the Radiation Expert Group

EPPR established its third Expert Group, the Radiation Expert Group (RAD EG) in December 2019. The function of the RAD EG is to facilitate the implementation of the EPPR mandate and strategic plan framework regarding radiological and nuclear emergencies. The RAD EG delegates include radiation authorities' experts from all eight Arctic States.

Before the formal establishment of the RAD EG, a radiological table-top exercise, RADEX 2019, was held in conjunction with EPPR-I June 2019 meeting in Bodø. RADEX 2019 was an international TTX related to rescue operations in a radiologically hazardous scenario and with risk for radioactive contamination at sea in the Arctic. RADEX 2019 had a complex scenario covering a maritime radiological/nuclear event including search and rescue operations in a radiologically hazardous areas, thus calling upon coordinated actions from several response organizations.

The RAD EG began its work with a project focusing on the *EPPR Strategic Plan (2016) Framework Objective 1*; to define the risk potential for emergencies due to nuclear/radiological material and activities that pose a threat in the Arctic. In under six months, the project developed and finalized a consensus report that identified objects and activities that may involve a potential risk for radiological/nuclear emergency situations in the Arctic and form a basis for future work of the RAD EG.

## R&D Initiative Workshop in Bodø 2019 and guiding document for the initiative

EPPR Research and Development Initiative (R&D Initiative) held a second workshop in conjunction with the June 2019 EPPR-I meeting in Bodø. The goal of the workshop was to exchange information on global oil spill response research for Arctic and cold-water environments. Objectives of the workshop included summarizing R&D being conducted by states and organizations focused on the fate and behavior of spilled oil in cold water and ice environments, identifying and discussing strategies, plans and knowledge gaps related to oil spill response focused on non-mechanical recovery strategies, and exploring joint plans and fields for research opportunities.

The R&D Initiative developed a guiding document to define the functions and work to be undertaken as tasked by the EPPR Heads of Delegations (HoDs). The guiding document was approved in early 2021.

## Web-based tools and webinars on Arctic Risk Assessment Guideline and Circumpolar Oil Spill Viability Analysis

EPPR held three webinars focused on the web-based tools that were launched during the spring of 2020. The webinars were organized cooperatively by the EPPR Secretariat and project leads, with successful outreach and full participation. In addition, EPPR, in cooperation with ACGF, held a Train the Trainer session in the fall of 2020 on the Circumpolar Oil Spill Viability Analysis web-based tool.

## Observer Engagement

EPPR increased its efforts to engage Arctic Council Observers in its work during the Icelandic Chairmanship period. EPPR continues to invite Observers to its meetings and events and offer the possibility to join projects at their early stages. One outcome of enhanced coordination and communication was a January 2020 EPPR study trip to the United Nations Environment Programme (UNEP) and the International Federation of the Red Cross and Red Crescent Societies (IFRC) in Geneva to further explore common interests and cooperation possibilities. New Observers have joined EPPR both in meetings and as part of the current projects.

## Communications development

EPPR focused on building its communications efforts. A new more functional [website](#) was launched in conjunction with other ACS hosted websites, facilitating the promotion of EPPR projects and tools. Increased media attention and social media campaigns were generated through developing communications related processes. Internal coordination and communication were strengthened by creating additional venues for information sharing. Work on developing EPPR communications is ongoing in cooperation with the ACS communications team.

## LIST OF EPPR DELIVERABLES TO THE REYKJAVIK MINISTERIAL MEETING

- Arctic Marine Risk Assessment Guideline web-based tool;
- Circumpolar Oil Spill Viability Analysis Phase II web-based tool;
- Preparedness, Prevention and Response in Small Communities Phase III [movie](#);
- RADSAR Report;
- RADEX 2019 TTX Report;
- Research & Development Initiative Workshop Report Bodø 2019;
- RAD EG Risks Project Consensus Report; and,
- EPPR-ACGF Arctic Guardian/MOSPA TTX After Action Report.

## EPPR WORK PLAN 2021-2023

### Introduction

EPPR strives to be the premier forum for international cooperation on prevention, preparedness and response to emergencies in the Arctic with a view of advancing risk mitigation and improving response capacity and capabilities. One of the EPPR goals is ensuring sustainable development of the Arctic territories based on organizing an effective emergency prevention and response system.

EPPR will continue to implement, as well as develop, project proposals within its mandate for approval as Arctic Council projects, recognizing the rights and interests of the Indigenous Peoples and all Arctic inhabitants and incorporating Traditional Knowledge and Local Knowledge (TKLK) when appropriate. Additional project proposals may be developed within the scope of this work plan and EPPR Strategic Plan during the 2021-2023 period. Implementation of projects is subject to available funding.

### List of individual projects and activities

#### Ongoing and continuing projects

#### *MOSPA Exercise Planning and Exercises 2021-2023*

Future plans to be confirmed by the Russian Federation.

**Lead/Co-leads:** Marine Environmental Response Expert Group (MER EG)

**Rationale and overall objective:** As EPPR has a responsibility for maintaining the Operational Guidelines that implement the *MOSPA Agreement*, the MER EG works to exercise and maintain these guidelines. To ensure all Arctic States remain engaged in multilateral discussions, biannual exercises are planned under the leadership of the Arctic Council Chairmanship. EPPR will continue to seek cooperation with the ACGF during planning and preparations for the operational portion of the MOSPA exercise.

**Main activities:** Annual connectivity test held during the first quarter of each year to validate contact information. MOSPA Exercise Planning Guidance will be followed to develop the scenario and exercise. An AAR will be developed that will include lessons learned and recommendations.

**Timeline:** 2021-2023 (tbd)

**Funding:** n/a

## *Arctic Rescue*

**Lead/Co-leads:** Russian Federation

**Rationale and overall activities:** The focus of this project is to elaborate on best practices, recommendations and key elements of the emergency risk assessment system and the system for improving safety of potentially hazardous facilities.

**Main activities:** The development of recommendations for joint activities aimed at ensuring industrial and environmental safety in major transportation corridors in northern Europe, supported by the development of legal regulation and management tools based on best international practices. Implementation of the project includes conducting research, seminars, and conferences on relevant subject areas.

The Russian Federation is planning, conditions allowing, to host the next international conference of the project, in conjunction with EPPR-II 2021 meeting in Kaliningrad, to facilitate the participation of the EPPR representatives.

Events in support of the project during 2021:

- The international conference on “Modern Problems in Disaster Management in the Arctic and Ways to Solve Them” (Kaliningrad, December 2021, tbc).

Events in support of the project during 2022:

- The international conference on “Cooperation between the Arctic States in the Field of Fighting Forest Fires”;

Events in support of the project during 2023:

- The international conference on “Monitoring Systems in the Arctic”

**Timeline:** 2021-2023

**Funding:** Russian Federation

## *Safety Systems in Implementation of Economic and Infrastructural Projects*

**Lead/Co-leads:** Russian Federation

**Rationale and overall objective:** The project’s main goal is the improvement of industrial and environmental safety related to economic and infrastructure projects, primarily the development of hydrocarbons on the Arctic continental shelf and transportation of related oil and gas products.

**Main activities:** In support of these projects, SAR and oil spill response exercises will be conducted annually.

Events in support of the project during 2021:

- The integrated exercise on protection of the Arctic territories from emergency situations (Murmansk, September 2021)

**Timeline:** (2021-2023)

**Funding:** Russian Federation

### *Prevention, Preparedness and Response in Small Communities – Phase IV*

**Leads/Co-leads:** Norway, Canada, United States, Aleut International Association (AIA)

**Rationale and overall objective:** The project seeks to build awareness of the challenges that oil spill incidents may create in small communities, and to provide options to prepare responses to these emergencies. Continuing from the successes of Phases I-III of the project, Phase IV seeks to continue meaningful engagement with small communities.

**Main activities:** Planning, scripting and producing a third outreach video in the series, with a working title “Planning for an initial community-based pollution response”.

**Timeline:** 2021-2023

**Funding:** Norway, Canada

### *Guideline and Tool for Arctic Marine Risk Assessment – Phase II*

Leads/Co-leads: Norway

**Rationale and overall objective:** Build on the previous project on Guideline and Tool for Arctic Marine Risk Assessment and focus on the next steps of the risk management process: risk evaluation, risk treatment and report. This project contributes to objective 3.1.2 Enhancing cooperation on maritime risk assessments of the *Arctic Council Framework Plan for Oil Pollution Prevention* (FPOPP).

**Main activities:** To further contribute to the circumpolar marine risk assessment building on the previous phase of the project, starting by organizing a scoping workshop in 2021.

**Timeline:** 2021-2023

**Funding:** Norway

### *Circumpolar Oil Spill Response Viability Analysis (COSRVA) – Phase III*

**Lead/Co-leads:** Norway

**Rationale and overall objective:** The purpose of the Circumpolar Oil Spill Response Viability Analysis (COSRVA) is to better understand the potential for different oil spill response systems to operate in the Arctic marine environment. This project contributes to objective 3.1.2 Enhancing cooperation on maritime risk assessments of the FPOPP. The continuation of the project with a phase III is considered.

**Main activities:** Phase III of the project will build on phase II with a plan of including forecast using real time meteorological data.

**Timeline:** 2021-2023

**Funding:** Norway, others (tbc)

### *Circumpolar Wildland Fire*

**Lead/Co-leads:** Gwich'in Council International (GCI)

**Rationale and overall objective:** The project aims to improve the coordinated response by Arctic States and Permanent Participants in response to catastrophic wildland fires in the Arctic region, and to promote the possibility of international cooperation and contracting of wildland fire resources across State boundaries, as well as coordinate trainings between relevant agencies so that emergency prevention, preparedness and response to wildland fire is effective and contemporary.

**Main activities:** The Steering Committee with relevant experts from Arctic States and PPs will continue to map and evaluate current wildland fire interagency agreements between the Arctic States, and evaluate other such instruments and agreements for best practices; and evaluate current and potential models for host nation support protocols. A joint workshop with CAFF Arctic Fire project is planned when feasible.

**Timeline:** 2020-2023

**Funding:** n/a

*New Low Sulphur Fuels, Fate, and Behavior in Cold Water Conditions (PAME-EPPR Joint Project)*

**Lead:** Norway

**Rationale and overall objective:** To expand our knowledge of the toxicity, fate, and behavior of new low sulphur fuel oils in cold water conditions. The results will support integration into marine oil spill prevention, preparedness, and response activities.

**Main activities:**

1. Develop and distribute a questionnaire on fuel used by ships in the Arctic;
2. Convene an expert workshop with industry representatives to advance the project;
3. Collect samples of fuels;
4. Analyze the fate and behaviour of the fuel samples; and,
5. Analyze the toxicity of these fuels.

**Timeline:** 2021-2023 (continued from previous work plan)

**Funding:** \$450,000 USD (including in-kind)

*NEPTUNE*

final draft

**Lead/Co-leads:** Norway, United States of America

**Rationale and overall objective:** The NEPTUNE project aims at investigating if expedition cruise vessels can be utilized as a resource in Arctic oil spill preparedness and response, what kind of possibilities that resource could offer, and what could limit the inclusion of these vessels as assets. Arctic Expedition Cruise Operators (AECO) is a partner in the project.

**Main activities:** The project has collected data through a questionnaire and conducted two tabletop exercises with AECO. The project will develop a report on its findings.

**Timeline:** 2020-2023

**Funding:** Norway

### *Arctic Lessons Learned Arena*

**Lead/Co-leads:** Norway

**Rationale and overall objective:** The Arctic Lessons Learned Arena's objective is to build an easy-to-use database for sharing after action reports from major incidents and exercises within the emergency preparedness and response entities and other relevant stakeholder groups in EPPR. The Arctic Lessons Learned Arena can assist EPPR to identify key capability gaps and best practices, develop evaluation and planning of exercises, and provide a tool for analysis. The database will be connected to SAR, MER and RAD EGs.

**Main activities:** Creation of the database, implementation of the prototype and further developing the database to add value to Arctic Council stakeholders.

**Timeline:** 2020-2023

**Funding:** Norway for general maintenance of the prototype for 2021, further development (tbd)

### *Research & Development (R&D) Initiative*

**Lead/Co-leads:** Norway, Canada and the United States

**Rationale and overall objective:** In 2017, EPPR and the U.S. Department of the Interior's Bureau of Safety and Environmental Enforcement (BSEE) hosted a workshop to share information and discuss the latest advances in oil spill response technology and best practices relevant to the Arctic region. Engineers, scientists, regulators, academics, and researchers from around the globe presented research, which yielded the most effective information sharing to date across the R&D spectrum. A second workshop was held in conjunction with EPPR-I meeting in June 2019. Acknowledging that environmental response in the Arctic region is difficult and costly, EPPR continues to support the initiative providing a venue for Arctic States, PPs, scientists, researchers, and industry to work in collaboration to enhance existing and identify new and relevant oil spill response equipment, technologies, and strategies for the Arctic.

The R&D initiative supports Art. 8 in the IMO OPRC Convention about Research and Development where the Parties are requested exchange of results of research and development programs relating to the enhancement of the state-of-the-art of oil pollution preparedness and response, including technologies and techniques for surveillance, containment, recovery, dispersion, clean-up and otherwise minimizing or mitigating the effects of oil pollution, and for restoration.

**Main activities:** The guiding document for the initiative was approved by EPPR in January 2021 and the project is planning its next workshop, offering a platform for R&D work in Arctic oil spill response.

**Funding:** (tbd)

## Planned upcoming projects under development for 2021-2023

Projects described in this section are not approved by EPPR but are included for information as upcoming work EPPR may endorse and undertake during the upcoming period. **These projects should not be considered as affirmed or agreed upon.**

### *Arctic RAD Capabilities Analysis (follow-up to the RAD EG Risks project)*

**Lead/Co-leads:** Norway and Canada

**Rationale and overall objective:** The project is a follow-up to the RAD EG Risks Project, that delivered a report identifying the risks associated to materials and activities which may lead to radiological or nuclear emergencies in the Arctic. Once risks are identified, the next step will be to analyze the existing capabilities within the Arctic States to mitigate these risks in case of a radiological or nuclear emergency in the Arctic.

**Main activities:** The expected deliverable will be a risk profile with identified capabilities and gaps to be resolved in order to effectively and efficiently respond to a radiological or nuclear emergency in the Arctic.

**Timeline:** 2021-2022

**Funding:** This project will depend on external funding. Funding will be sought from the Norwegian Ministry of Foreign Affairs (MFA).

### *Enhancing Maritime Surveillance Capacity Through International Cooperation*

**Lead/Co-leads:** Canada (others, tbc)

**Rationale and overall objectives:** The project will explore mechanisms to share knowledge, information and data acquired by Arctic States with a view of potentially developing formalized mechanisms. Lessons learned from operations and training events could provide valuable information which may result in increased effectiveness of participating Arctic State's surveillance programs and aerial search capacity. Collaboration among the Arctic States could enhance the effectiveness of each program to better respond and operate in the Arctic. Furthermore, a consideration for the alignment of standard operational procedures or guidelines may assist Arctic States in providing mutual aid to each other and enhance coordination during a large-scale incident.

**Main activities:** Presentations on aerial surveillance program and national capacity and sharing lessons learned and best practices from responding to and monitoring pollution incidents, accidents and emergency events in harsh Arctic conditions via a questionnaire. Sharing best practices of Remotely Piloted Aircraft Systems (RPAS) operations and investigating mechanisms to share

surveillance data between Arctic States. Developing operational procedures for remote and aerial surveillance and exploring possible exchange of personnel for crew familiarization and exercises. Exploring the possibility of coordination of earth observation satellites to share imagery over contiguous waters, where possible. Developing and conducting exercises with other Arctic States and share lessons learned and best practices.

**Timeline:** 2021-2023

**Funding:** Canada

### *Arctic Risk Management Network (ARMNet)*

**Lead/Co-Lead:** Arctic Athabaskan Council (AAC), [others tbc]

Rationale and overall objective: ARMNet aims to enhance the safety and resilience of inhabitants across the Arctic through establishment of a network that supports the capacity of EM practitioners and decision-makers in small and remote Arctic communities to improve responsiveness to emergencies.

**Main activities:** Create a user-friendly platform to grow the availability of data in an accessible user-friendly format for emergency management practitioners. Foster collaboration through dialogue and activities involving community leaders, policymakers, and first responders. The network would create a circumpolar community of interest around local emergency management and focus on: access to context-specific trainings; information on new techniques and technologies; and communication of news and opportunities related to emergency management.

**Timeline:** tbc

**Funding:** tbc

### *Radiological Consequence Analysis of Selected Activities Involving a Risk of Emergency Situation in the Arctic”*

**Lead/Co-leads:** Finland (others, tbc)

**Rationale and overall objective:** The project is a follow-up to the RAD EG Risks Project. To support further activities in analyzing EPR and SAR capabilities and gaps in the Arctic, radiological consequence analysis of selected emergency situations identified in the RAD EG Risks project.

**Main activities:** A quantitative determination of the level of risk. Existing work and analysis will need to be considered and added value of new modelling justified. A report with scenario descriptions and radiological consequence analysis will be ready in the spring/summer of 2022

**Timeline:** 2021-2022

**Funding:** Finland

*Floating nuclear power plant (FNPP) in the Arctic*

**Lead/Co-leads:** (tbd)

**Rationale and overall objective:** The RAD EG has identified a need to address current gaps related to radiation in international law from an Arctic perspective. This work is intended to address emergency preparedness and response arrangements for the circumpolar Arctic.

**Main activities:** The RAD EG will follow this topic but a separate new project will depend on RAD EG members' initiative and commitment and possibly on available funding.

**Timeline:** 2021-2023

**Funding:** (tbd)

*Emergency Prevention, Preparedness and Response to Radiation Emergencies in Arctic Communities*

**Lead/Co-leads:** (tbd)

**Rationale and overall objective:** The RAD EG has identified the need for the RAD EG to be involved in projects focusing on emergency prevention, preparedness and response to radiation emergencies at the local community level and in cooperation with PPs.

**Main activities:** Inclusion of RAD in a later phase of the Small Communities Project together with the Aleut International Association (AIA) is one of several possible options. Norway has a previous project proposal of relevance, developed together with the Saami Council. The RAD EG will follow this topic but a separate new project proposal on this will depend on RAD EG members initiative and commitment and possibly on available funding.

**Timeline:** 2021-2023

**Funding:** (tbd)

## EPPR ADMINISTRATION

The EPPR Secretariat is located in Tromsø, Norway, and is a part of the Arctic Council Secretariat (ACS) with a full time Executive Secretary. EPPR meets twice a year to discuss projects and priorities identified in the work plan, including new projects within the EPPR mandate. Biannual meetings typically include a day dedicated to meetings of the three EGs and two days of plenary sessions. EPPR is planning to conduct intersessional HoD teleconferences twice a year, or as appropriate, in addition to the regular plenary meetings, to enhance coordination and communication. EGs hold intersessional teleconferences when needed and appropriate, supported by the Secretariat. EPPR has strengthened its internal communications and coordination by creating an Executive Group consisting of the Chair, Vice Chairs, Expert Group Chairs and the Executive Secretary. The Executive Group meets on a regular basis online. EPPR also plans to undertake a review of existing EPPR structures and develop additional guidance, as necessary. EPPR attends meetings of the SAOs, WGs, TFs and other Arctic related events deemed appropriate by the EPPR Chair. EPPR remains highly committed to supporting the cross-cutting initiatives identified by the SAOs and WGs. The Kingdom of Denmark has held the EPPR Chairmanship in 2017-2021, and Canada is the incoming Chair for 2021-2023, supported by Norway as the Vice Chair.

## EPPR COMMUNICATION AND OUTREACH

The EPPR Executive Secretary maintains and generates content for the EPPR website, EPPR Twitter and EPPR Instagram accounts, with support from the ACS, and manages the EPPR SharePoint. Outreach materials, such as factsheets and short videos are produced by the EPPR Secretariat with support from the ACS or in cooperation with project leads. The EPPR Secretariat coordinates and facilitates media availability of EPPR experts and delegates in cooperation with the ACS communications team. The EPPR Chair and Executive Secretary accept various invitations to speak about the work of EPPR in relevant settings, for example in Arctic conferences and other events and venues.

# Conservation of the Arctic Flora and Fauna (CAFF)

final draft

## CAFF MANDATE

The Conservation of Arctic Flora and Fauna (CAFF) Working Group (WG) mandate is to address the conservation of Arctic biodiversity, and to communicate findings to the governments and residents of the Arctic, helping to promote practices that ensure the sustainability of the Arctic's living resources.

## ACHIEVEMENTS 2019-2021

### Summary of achievements 2019-2021

CAFF has focused on implementing the Actions for Arctic Biodiversity 2013-2023: Implementing the recommendations of the Arctic Biodiversity Assessment (ABA) and conducted an evaluation of progress. During the Icelandic Chairmanship CAFF has responded to Iceland's priorities through different projects and initiatives, including engagement with the Arctic Economic Council (AEC) on mainstreaming of biodiversity in the mining industry and building relationships within the mining sector to support biodiversity within sustainable development. Other examples include bringing forward an increased understanding of the impact of plastics on Arctic seabirds and demonstrating how these impacts might be monitored, and working to align various activities together, e.g., in the Circumpolar Biodiversity Monitoring Program (CBMP).

final draft

### Circumpolar Biodiversity Monitoring Program (CBMP)

The CBMP, CAFF's cornerstone program, is an international network of scientists, governments, agencies, Indigenous organizations, and conservation groups working to harmonize and integrate efforts to monitor the Arctic's biodiversity. A new CBMP Strategic Plan (2021-2025) focuses on ensuring the program's continued relevance, efforts to enhance engagement with Indigenous organizations and Peoples, implementation, and sustainability. The CBMP continues to provide the latest information about biodiversity trends to support decision making and follow the steps required for a long term adaptive (question driven) ecosystem-based monitoring program. The program uses the best science available on Arctic species and ecosystems. CAFF also recognizes the need to put forward the most robust evidence-based information brought forward from both Indigenous Knowledge and science, in order to more fully inform decision making. With this in mind, specific efforts within the Coastal Plan of the CBMP have focused on the co-production of knowledge. CAFF will continue efforts to enhance the meaningful engagement of PPs and utilization of Indigenous Knowledge.

CBMP efforts are organized around the Arctic's major ecosystems (marine, freshwater, terrestrial, and coastal) with key actions including indicator development; data aggregation and rescue; identification of knowledge gaps; development and implementation of coordinated monitoring plans; and, reporting

on status and trends in biodiversity. Below is a list of key activities and deliverables during the 2019-2021 Chairmanship period:

- Completion of a new 4-year strategy to guide implementation of the CBMP including new integration across ecosystem monitoring groups and proper alignment with other WGs;
- The State of the Arctic Terrestrial Biodiversity Report (START) summarizes the status and trends in key elements of the Arctic terrestrial environment and provides advice on how to better improve Arctic terrestrial biodiversity monitoring. The results are based on efforts to find, gather, integrate, and interpret all available Arctic terrestrial biodiversity monitoring datasets to improve the detection and understanding of changes in circumpolar terrestrial biodiversity. The work captured in the report is showcased by a series of peer-reviewed articles in a special journal edition in *AMBIO Journal of the Human Environment*;
- Continued implementation of the CBMP Coastal, Freshwater and Marine monitoring plans; including implementation plans for the Freshwater and Coastal monitoring groups;
- Completion of a comprehensive scoping process to identify how to follow-up on the outcomes of the State of the Arctic Marine Biodiversity Report (SAMBR);
- Release of update to the 2017 SAMBR;
- Enhanced data integration through the Arctic Biodiversity Data Service (ABDS) and enhanced harmonization of monitoring efforts;
- Implementation of the Coastal Monitoring Plan, which offers a platform for a co-production of knowledge approach; and,
- The CBMP strategy for 2021-2025 is regarded as a living document and will be subject to revision as needed to ensure it is aligned with CAFF priorities, including the new Action Plan for Biodiversity in 2023.

### Arctic Migratory Birds Initiative (AMBI)

The Arctic Migratory Birds Initiative (AMBI) is an ongoing initiative to improve the status and secure the long-term sustainability of declining migratory bird populations that breed in the Arctic. It is the first and only Arctic Council initiative that engages Arctic and non-Arctic states on issues of conservation outside of the Arctic for the benefit of biodiversity and is a primary mechanism that drives cooperation between Arctic and non-Arctic states. Now in its second phase, this maturing program organizes its work around four global flyways and seeks to address priority conservation issues of climate change, habitat destruction, illegal killing/overharvest, and pollution. AMBI is guided by a 22 objective, 76 action, work plan and engages a global network of experts and mechanisms to better understand and deliver conservation results. Since 2019, AMBI has produced the following successes:

- Delivery of a mid-term evaluation to track progress and advise on subsequent revisions to the AMBI work plan 2019-2023 to strategically position the program to deliver results in a

changing conservation context. Results indicate that about 85% of work plan actions are on track or are making progress;

- Increased coordination, engagement and participation of Arctic Council Observer States on Arctic-breeding migratory bird conservation, including cooperation on implementation, funding, and development of Records of Observer Contributions (ROCs);
- Increased understanding of plastics distribution within the Arctic environment and the effects of plastics on seabirds and shorebirds, and information utilized to inform other Arctic Council processes that address plastics; and,
- Facilitating new engagement in global flyway-wide conservation efforts including work under the UN Convention of Migratory Species, the Mid-continental Shorebird Conservation Initiative in the Americas, the Central Asian Flyway Initiative, East Asian-Australian Flyway Partnership, and connections with the African-Eurasian Waterbird Agreement in the African Eurasian Flyway.

### Inspiring Arctic Voices through Youth: Engaging Youth in Arctic Biodiversity

To advance youth engagement and leadership in the Arctic, CAFF is working to provide a platform for youth from around the world to help raise awareness about the Arctic and to engage in international discussions about Arctic issues, strategies, and policies. This platform advances a number of CAFF priorities and broader Arctic Council mandates expressed in Ministerial Declarations including meaningful engagement of Arctic communities, international collaboration, and engagement with observers. Following-up upon the Youth Declaration on Arctic issues (2019) during the Icelandic Chairmanship the following activities have been undertaken:

- Organizing youth exchanges (e.g., between youth from Iceland, Finland, Norway, Sweden, and the United States);
- Supporting the creation of an independent global network of youth engaged and interested in Arctic issues;
- Empowering youth to engage in conservation and promotion of Arctic biodiversity in their own home countries; and,
- Developing of a new CAFF Youth Engagement Strategy that guides CAFF's efforts until 2026.

### Resilience and Management of Arctic Wetlands

This project has helped improve the state of knowledge on resilience and management of Arctic wetlands in response to global change, including climate and land use, and identify knowledge gaps and research needs concerning sustainable development policies. Ministerial deliverables include:

- Phase 2 report;

- *Arctic Wetlands and Indigenous Peoples Study*, which explored the role Indigenous Peoples play in Arctic wetland protected areas management; and,
- Key Findings and Policy recommendations.

## Mainstreaming

CAFF's mainstreaming activities have continued to focus on building relationships with and between industry, government experts, Indigenous communities, and experts in mainstreaming, especially as it relates to Arctic biodiversity. This includes developing partnerships with the mining industry to create a better understanding of the challenges industry faces incorporating biodiversity considerations into its work, and ways in which industry strives to address these challenges. The Mainstreaming Biodiversity in Arctic Mining project seeks to facilitate improved incorporation of biodiversity objectives (as well as related social dimensions) and provisions into the plans, operations and/or other tools specific to the mining industry operating in the Arctic region. These efforts raise awareness about CAFF's mission and tools available to support shared objectives and opportunities for collaboration. During the Icelandic Chairmanship, the CAFF has sought to build common ground among the mining industry, government(s), Indigenous Peoples, conservation organizations, biodiversity experts, and Arctic communities. While CAFF's ability to engage with experts was significantly impacted by the Covid-19 pandemic, the CAFF finalized a progress report with extensive input from hundreds of individuals knowledgeable about mining in the Arctic.

## Indigenous Knowledge and Local Knowledge

CAFF has a long history of recognizing Indigenous Knowledge (IK) and local Knowledge (LK) and has endeavoured to utilize such knowledge systems within CAFF activities. CAFF additionally recognizes IK and LK to be two separate knowledge systems. Focus to date has been on IK. Over 2019-2021, the CBMP Coastal Expert Monitoring Group has placed a strong focus on building a platform for co-production of knowledge, which will support bringing together IK and science – this is the first platform to support a co-production approach developed within the Arctic Council. In addition to the work done within the Coastal Expert Monitoring Group, the ongoing Salmon Peoples of Arctic Rivers project is grounded in the meaningful utilization of IK and focuses on bringing together IK holders, scientists, and resource agencies to design an assessment process of freshwater river systems based on IK. Additionally, the Arctic Wetlands and Indigenous Peoples Study explored the fundamental role Indigenous Peoples play in biodiversity conservation through engagement in Arctic wetland protected areas management.

## Arctic Biodiversity Data Service (ABDS)

The ABDS is an online, interoperable data management system to access data arising from CAFF's programs and activities. It was developed to increase access to Arctic biodiversity data for the common good of scientists, Arctic communities, policy makers, and other stakeholders. The ABDS is ensuring that the data generated by CAFF monitoring and assessments is archived, accessible and available to inform future regional and global assessments. A new initiative the Arctic Biodiversity Dashboard will harness and visualize datasets to streamline regional target tracking and reporting, e.g., regarding global biodiversity targets. The ABDS has built partnerships with key international actors including the Global Biodiversity Information Facility (GBIF), the Arctic Spatial Data Infrastructure (Arctic SDI), the Ocean Biogeographic Information System (OBIS) and the Global Earth Observation System of Systems (GEOSS) to ensure that information on Arctic biodiversity flows into other global processes.

## Covid-19 pandemic

Covid-19 has impacted the work of CAFF through causing disruptions to project timelines; delays in project completion; moving of meetings online; and changes in working practices. These changes have hampered efforts to finalise ministerial deliverables with many deliverables delayed, leading to increased workloads and time pressures to meet the timelines for Ministerial deliverables. Ongoing international processes that should inform various steps of CAFF's work have also been delayed due to Covid-19, e.g., development of the new Global Biodiversity Framework, thus causing further delay in the development of the next Actions for Arctic biodiversity. Moving to online meetings has resulted in broader participation in CAFF meetings, but also led to increased numbers of meetings and requests for engagement, requiring greater time commitments. Meeting online has worked well with ongoing initiatives, however, it has proved more challenging as a medium to communicate when negotiating or developing new initiatives.

## LIST OF CAFF DELIVERABLES TO THE REYKJAVIK MINISTERIAL MEETING

- CBMP
  - *CBMP Strategy 2021-2025*
  - *State of the Arctic Terrestrial Biodiversity Report (START)*
  - *State of the Arctic Terrestrial Biodiversity Report: Key Findings and Advice for monitoring*
  - *State of the Arctic Marine Biodiversity Report (SAMBR): updates (Seabirds and Marine Mammals)*

- *Special Journal issues on START and State of the Arctic Freshwater Biodiversity Report*
- *Online manual for implementing CBMP Freshwater and Terrestrial Monitoring Plans*
- AMBI
  - *AMBI Work plan 2019-2023 revised 2021 (English, Spanish) AMBI Mid-term evaluation package*
    - Action tracking tool,
    - Evaluation summary report
    - Series of case studies
  - Arctic Seabirds and Plastics:
    - *Review of plastic pollution policies of Arctic countries in relation to seabirds,*
    - *Plastic ingestion by seabirds in the circumpolar Arctic: A review*
    - *Developing a program to monitor plastic pollution in seabirds in the pan-Arctic region*
    - *Skimming the Surface (film) (English, Russian, Greenlandic, French)*
- Circumpolar Seabird expert group
  - *Circumpolar Black-legged Kittiwake Conservation Strategy and Action Plan*
  - *Seabird Population Trends and Colony Database and manual*
  - *What's the catch with lumpsuckers? A North Atlantic study of seabird bycatch in lumpsucker gillnet fisheries*
  - *Quantifying the relative impact of hunting and oiling on Brünnich's guillemots in the North-west Atlantic*
- Resilience and management of Arctic Wetlands
  - *Arctic Wetlands and Indigenous Peoples Study*
    - Phase 2 report
    - Key Findings and Recommendations for policy makers
- Strategy for CAFF: Inspiring Arctic Voices through youth
- Progress Reports
  - *Mainstreaming biodiversity in Arctic mining*
  - *Actions for Arctic Biodiversity 2013-2021: implementation of the ABA recommendations*

- Arctic Biodiversity Data Service (ABDS)
- Arctic Spatial Data Infrastructure (SDI)
- Annual reports, workshop proceedings, national implementation reports and communication products; and,
- Arctic Biodiversity Through the Lens Photography travelling exhibition

## CAFF WORK PLAN 2021-2023

### Introduction

The following work plan outlines the projects and activities CAFF plans to undertake for the 2021-2023 Russian Federation's Arctic Council Chairmanship. It may be amended by the CAFF Board according to new opportunities and priorities. CAFF's mandate and associated activities are integral to the success of Russia's Chairmanship priorities.

*The Actions for Arctic Biodiversity 2013-21: Implementing the recommendations of the Arctic Biodiversity Assessment (ABA)* guides how the Arctic Council addresses biodiversity. A new action plan for the coming years has been delayed due to the Covid-19 pandemic related challenges, including delays in international processes informing our work. Key actions in phase 4 of the ABA (2021-2023) include the development of a new plan, as well as completing projects, implementing strategies and plans developed in early phases, evaluating progress and designing follow-up. During the incoming Chairmanship, CAFF will undertake a prioritization process regarding all activities it plans to conduct.

Focus will continue over ongoing CAFF actions that address:

- Mainstreaming biodiversity;
- Ecosystem services;
- Communications and outreach;
- Adaptation to climate change;
- Coordination of long-term biodiversity monitoring;
- Stressors on biodiversity, e.g., invasive species and pollution;
- Protecting migratory species;
- Indicator development;
- Safeguarding biodiversity under changing conditions;
- Cumulative effects;

- Bringing together different knowledge systems to build evidence-based information to enhance understanding of changes occurring in the arctic to inform decision making across scales;
- Improving knowledge and public awareness; and,
- Contributing to the Convention on Biological Diversity, the Sustainable Development Goals, and the new global biodiversity post 2020 framework [currently under development].

Many projects benefit from in-kind support from Arctic States and PPs. Additional support is requested through grant applications and state contributions. The timeline for each project is completed as projects develop.

#### List of individual projects and activities

#### *Actions for Arctic Biodiversity: Implementing the Recommendations of the ABA*

**Lead/co-leads:** Components are led by different Arctic States, PPs, WGs and other Arctic Council subsidiary bodies.

**Rationale and overall objective:** A foundational framework following up from the Kiruna, Iqaluit (2015) and Fairbanks (2017) declarations, this project has the objective of promoting ABA implementation among Arctic States and others. Expected deliverables include an evaluation report on implementation of ABA recommendations and a new Actions for Arctic Biodiversity 2023-2030. Development of the new Actions for Arctic Biodiversity was delayed until 2023 due to the impacts of the COVID-19 pandemic. This delay allows more time to develop content and structure, including alignment with the post-2020 UN Global Biodiversity Framework, which is currently under development and has also been delayed due to the COVID-19 pandemic. The current Action plan is extended until 2023 and will continue as the guiding framework for CAFF and the Arctic Council on biodiversity activities.

#### **Main activities:**

- Implementation of ABA recommendations including projects and activities;
- Evaluation of the implementation of ABA recommendations towards the end of the Action plan period; and,
- Development of a new Action plan for 2023-30.

**Timeline:** Ongoing

### *Continued implementation of the Circumpolar Biodiversity Monitoring Program (CBMP)*

**Lead/co-leads:** Kingdom of Denmark and the United States, with components chaired by Canada, the United States and Sweden

**Rationale and overall objective:** This is a foundational program implementing CAFF's mandate and ABA recommendations which is working to harmonize and integrate efforts to monitor the Arctic's biodiversity. Expected deliverables include the implementation of the *CBMP Strategic Plan for 2021-2025* and the *Arctic Coastal/Marine/Freshwater/Terrestrial Biodiversity Monitoring Plans*. This involves for example follow-up on the *State of Arctic Freshwater, Terrestrial and, Marine State of the Arctic Biodiversity* reports, the development of the *Coastal Biodiversity Report* as well as the ongoing development of the CBMP suite of headline indicators.

**Main activities:** This project will standardize and integrate efforts to monitor, collect and harmonize data and report on the status and condition of Arctic biodiversity, ecosystems and living resources. Key activities include continuing the implementation of the CBMP Strategic plan with a follow-up on the *State of the Arctic Freshwater, Marine and Terrestrial* reports, and the development of the *State of the Arctic's Coastal biodiversity report* as well as other CBMP activities.

**Timeline:** ongoing

### *Implementation of the Arctic Migratory Birds Initiative (AMBI)*

**Lead:** Russian Federation.

**Rationale and overall objective:** This project aims to improve the status and secure the long-term sustainability of declining migratory bird populations that breed in the Arctic. Expected deliverables include progress towards, and achievement of, various actions identified in the AMBI workplan. Implementation of the work plan will continue for the next chairmanship period (until 2023).

**Main activities:** Implementation of the AMBI 2019-2023 work plan

**Timeline:** 2013-2023

### *Marine Invasive Alien Species in Arctic Waters (joint PAME-CAFF Project)*

**Leads:** Kingdom of Denmark, Canada, Norway. **Partner:** CAFF.

**Rationale and overall objective:** Contribute to the implementation of the *Arctic Invasive Alien Species Strategy and Action Plan (ARIAS 2017)* by improving the knowledge base for CAFF and PAME on specific actions in ARIAS that focus on the risk of potential transfer of alien invasive species by ships via ballast water (BW) and biofouling (BF) into and within Arctic waters.

**Main activities:** The project will compile a list of known nonindigenous species, including their current distributions, in Arctic waters. Presently, most Arctic States have data and knowledge that can be included directly in the project, which will also include a list of data sources. Furthermore, the project will review methods and tools used for risk assessment of invasive species, vectors and pathways, and identify those best suited for the project's risk assessments, as well as an assessment of the probability of nonindigenous species to be transferred by ships into Arctic waters, and between different ecoregions in the Arctic, presently and in the year 2100.

**Timeline:** 2021-2023

### *Mainstreaming Arctic Biodiversity*

**Leads/co-leads:** Sweden, Canada and the United States.

**Rationale and overall objective:** This project seeks to incorporate biodiversity objectives and provisions into all Arctic Council work and encourage the same for ongoing and future international standards, agreements, plans, operations and/or other tools specific to development in the Arctic. This includes, but is not restricted to, oil and gas development, shipping, fishing, tourism, and mining.

**Main activities:** The project will continue engagement with partners and follow-up on phase 1 and 2.

**Timeline:** 2019-2023

### *Circumpolar Seabird expert group (CBird)*

**Leads/co-leads:** Finland with different activities led by individual countries

**Rationale and overall objective:** This expert group coordinates the conservation of Arctic seabirds and enhances the exchange of information on factors affecting status and trends in Arctic seabirds.

**Main activities:** Activities of CBird include the implementation of seabird conservation strategies, several items on the AMBI Circumpolar flyway workplan and the Circumpolar Seabird Monitoring Plan. Other activities include data compilation, analysis, and coordination. Expected deliverables: assessments, technical reports, strategies, data, and meetings.

**Timeline:** ongoing

### *Inspiring Arctic Voices through Youth: Engaging Youth in Arctic Biodiversity*

**Lead/co-leads:** United States, WWF Arctic Programme (WWF-Arctic and others, tbc).

**Rationale and overall objective:** The project seeks to advance youth involvement, capacity-building and leadership in public outreach and education about the Arctic. Its main objective is to create opportunities for dialogue amongst youth and with appropriate organizations around the world to share their perspectives.

**Main activities:** Continue to work towards organizing the 2<sup>nd</sup> Arctic Youth Summit in 2022, parallel to the third Arctic Biodiversity Congress and continue the implementation of the Youth Exchange Program, including through virtual exchanges. Expected deliverables include approval of a CAFF International Arctic Youth Engagement Strategy. This Strategy will be developed in close coordination and alignment with other Arctic Council youth engagement efforts.

**Timeline:** ongoing

### *Scoping for Resilience and Management of Arctic Wetlands*

Lead/co-leads: Sweden

**Rationale and overall objective:** This project aims to follow-up on outcomes from Phase 3 of the Scoping for Resilience and Management of Arctic Wetlands.

**Main activities:** Develop a plan to follow-up on the policy recommendations from Phase 3.

**Timeline:** 2017-2023

### *Follow-up on the Arctic Council Cross-cutting Initiatives*

Lead/co-leads: CAFF Chair

**Rationale and overall objective:** To continue work on cross-cutting activities between the Arctic Council's WGs, projects, expert groups, Task Forces and the Arctic Council Secretariat (ACS).

**Main activities:** Activities include:

- Follow-up on recommendations of the Ecosystem Based Management expert group (EBM EG);
- Follow-up on the outcomes of the AMAP-CAFF scoping process to explore potential for climate change impact analyses in marine, terrestrial and freshwater ecosystems;
- Underwater noise;

- Climate change factsheets;
- Supporting implementation of the Arctic Marine Strategic Plan (AMSP);
- Assist in the implementation of the framework for a circumpolar Arctic network of Marine Protected Areas;
- Follow-up on the Arctic Council's Resilience framework; and,
- Coordination of biodiversity input

Expected deliverables include continued contributions to support cross-cutting activities.

**Timeline:** 2021-2023

### *Understanding climate change impacts on Arctic ecosystems and associated climate feedbacks (joint CAFF-AMAP project)*

**Lead/co-leads:** (tbd)

**Rationale and overall objective:** Climate change is altering Arctic ecosystems and biodiversity. These changes feed back to the climate system, with a potential to dampen or accelerate local to regional changes in climate and greenhouse gas emissions. The resulting impacts on ecosystem services, livelihoods and well-being will have far-reaching consequences for Arctic communities and beyond. The objective of this activity is to assess how climate change affects Arctic ecosystems and climate feedbacks to inform strategies for adaptation and resiliency. The work will address how:

- Climate change impacts fundamental ecosystem properties and trigger ecosystem perturbations. Emphasis will be on how climate change could erode resilience, making Arctic ecosystems more prone to abrupt changes and tipping points, as well as changes over longer time periods. Assessments will encompass marine, coastal, freshwater, and terrestrial ecosystems;
- The capability of ecosystems to regulate climate, which are impacted by climate induced changes. This entails feedbacks related to a range of mechanisms, including storage and release of carbon, hydrological fluxes, and surface albedo; and,
- Climate-induced changes impact Indigenous Peoples, local communities and livelihoods, and how ecosystem-based adaptations could reduce the vulnerability of Indigenous Peoples and local communities to impacts.

PPs will be engaged in developing the project, identifying questions to be answered and how Indigenous Peoples and IK will be included.

#### **Main activities:**

- Step 1 Preparatory Activities (2021): Co-design and prepare a detailed plan describing the topics, relevance, available datasets, methods, case studies and assessment products;

- Step 2 Implementation (2021-2023): Products might include reports, scientific articles, special journal issues, policy-summaries, and communication products; and,
- Step 3 Follow-up (2023-2025): Joint AMAP/CAFF science assessment and Summary for Policy Makers.

**Timeline:** 2021-2023

### *The Arctic Biodiversity Data Service (ABDS) Development Including Cooperation on the Arctic Spatial Data Infrastructure (SDI)*

**Lead/co-leads:** CAFF Secretariat

**Rationale and overall objective:** This project facilitates access, integration, analysis and display of biodiversity information for scientists, practitioners, managers, policy makers. It will ensure that biodiversity data generated by the Arctic Council are organized to guarantee a legacy and be available to inform global and regional assessments. A new initiative, the Arctic Biodiversity Dashboard, will focus on improving access to biodiversity information through the development of an interactive component to the ABDS that will harness and visualizes datasets to streamline regional target tracking and reporting, e.g., regarding global biodiversity targets.

**Main activities:** The project involves data rescue, development, standardization, integration, and display of biodiversity information. Expected deliverables include continued development of the ABDS, addition of data and support to CAFF activities.

**Timeline:** ongoing

### *The Arctic Wildland Fire Ecology Mapping and Monitoring Project (ArcticFIRE)*

**Lead/co-leads:** Gwich'in Council International (GCI)

**Rationale and overall objective:** The project seeks to improve the understanding of fire ecology and impacts in Arctic States and to communities represented by the PPs, and to reduce the threat of catastrophic wildland fire.

**Main activities:** The project will seek to promote the conservation and sustainable use of Arctic flora and fauna by mapping the extent and distribution of fires across the Arctic, collecting guidelines and best practices for Arctic fire ecology and forest management to manage impacts on Arctic ecosystems, air quality, and climate change, including from PPs, and providing an annual digital Arctic Fire Monitoring compilation that includes relevant Arctic fire ecology and fire-related Indigenous Knowledge (IK) research.

**Timeline:** 2019-2023

### *Other Effective Area-based Conservation Measures (OECM) areas in the Arctic Marine Environment (joint PAME-CAFF Project)*

**Lead/co-leads:** Kingdom of Denmark, Canada, United States.

**Rationale and overall objective:** This project will provide an overview of the current range and understanding of international and national criteria used for identification of “Other Effective Area-Based Conservation Measures” (OECMs) in the Arctic, this would include potential case studies on the approach Arctic States have applied to identify OECM’s in their national waters, and how those are contributing to broader marine conservation objectives. In addition, it would facilitate an exchange of information among Arctic States on the range of information and application of OECMs, and potentially contribute to updates of the Framework for a Pan-Arctic Network of MPAs. Include updated references and information on OECMs, consistent with what will be developed as part of this project into the updated PAME/CAFF “Indicator Report” (to be re-named “Status and Trends for Arctic Conservation Measures”).

**Main activities:** The project will be implemented by CAFF/PAME through a joint steering committee to be established to guide the work.

1. Project co-leads will gather existing sources on OECM criteria and Arctic State’s approaches to identifying OECMs, and relevant case studies. Provide relevant updated information on OECM’s to the PAME/CAFF Indicator report revision (spring 2021);
2. A report will be developed, based on the results gathered, which would include an overview of OECM criteria and application in the Arctic context, and Arctic relevant case studies; and,
3. Convene a workshop or session at the 2022 IMPAC V Congress in Vancouver (potentially in partnership with the Convention on Biological Diversity (CBD) Secretariat/others) to bring together Arctic marine conservation practitioners and managers to share information on the application of OECMs in the Arctic.

**Timeline:** 2021-2023

### *The 3<sup>rd</sup> Arctic Biodiversity Congress*

**Lead/co-leads:** Arctic States and PPs - CAFF Chair, and others (tbc); **WG partners:** all WGs. **Other partners:** Observers – all Observer States and organizations invited. **Others:** public, scientific community, IK holders, CAFF partners and expert organizations as relevant.

**Rationale and overall objective:** The project seeks to promote the conservation and sustainable use of Arctic biodiversity focusing on the results of the CBMP “State of the Arctic biodiversity” reports, and progress on implementation of ABA recommendations. It is considering to host a second youth congress in conjunction with the *Arctic Biodiversity Congress*.

**Main activities:** The project will convene and report on the results of the 3<sup>rd</sup> *Arctic Biodiversity Congress*.

**Timeline:** 2021-2023

### *Community Observation Network for Adaption & Security (CONAS)*

**Lead/co-leads:** Arctic States, PPs, and others (tbc); **WG partners:** all WGs. **Other partners:** Observers – all Observer States and organizations invited; **Others:** public, scientific community, IK holders, CAFF partners and expert organizations as relevant.

**Rationale and overall objective:** The project seeks to utilize human observers to document environmental changes, significant to understanding pan-arctic processes.

**Main activities:**

- Community engagement: building rapport and trusting relationships with each community involved, educating about free and informed consent and data sovereignty;
- Capacity building: on-boarding new communities wanting to utilize the program, allowing time for communities to meet amongst themselves to define the project and results they want to see, establishing agreements with Tribal and community governments; and,
- Data collection: intended to be used for generating map and data products to inform decision making for communities participating in the program.

**Timeline:** ongoing

### *Salmon Peoples of Arctic Rivers*

**Lead/Co-leads:** AAC, Saami Council, RAIPON, AIA.

**Rationale and overall objective:** Traditional Knowledge (TK) holders, scientists and resource agencies are designing an assessment of freshwater river systems based on TK. The design of this holistic assessment will focus on “Salmon peoples” as a measure of ecosystem health and outline future data needs that could contribute to the resilience and adaptation of these peoples and the salmon populations upon which they depend.

**Main activities:** Complete phase 1 and initiate phase 2.

**Timeline:** 2019-2023

*Develop additional Information Briefs on the Arctic marine environment under change*

**Leads/Co-leads:** tbd. **Partner:** PAME.

**Rationale and overall objective:** Continue to develop Information Briefs (IBs) on the Arctic marine environment under change with the aim to leverage and synthesize information from the Arctic Council's work on this topic, communicate to decision makers and the public, and contribute to cross-cutting WG cooperation on common topics.

**Main activities:** Establish a joint PAME/CAFF scoping team to begin scoping possible content and areas of focus for an IB on a topic or topics related to joint PAME/CAFF activities under the broad theme of biodiversity, including consideration of what would be feasible and most valuable to present during this biennium. This may require a virtual workshop. Once the scope is clear, project co-leads will work with a drafting team inclusive of interested Arctic States, PPs, and relevant Observers to develop drafts of the IB for regular review by PAME and CAFF. Co-leads will aim for a completed product in time for submission to the SAOs for consideration for the 2023 Ministerial.

**Timeline:** 2021-2023

*Actions for Arctic Biodiversity 2023-2030: Implementing the Recommendations of the ABA*

**Lead/co-leads:** Arctic States and PPs - Components are led by different Arctic States, PPs, WGs and other Arctic Council subsidiary bodies. **WG partners:** Components are led by different WGs. **Other partners:** Observers – observers are involved in projects related to ABA implementation.

**Rationale and overall objective:** At the 2015 Arctic Council Ministerial meeting in Iqaluit, Canada, CAFF presented the Actions for Arctic Biodiversity 2013-2021: implementing the recommendations of ABA (Actions for Biodiversity). This Actions for Biodiversity guides how the Arctic Council addresses biodiversity issues and describes actions to be undertaken in response to the findings of the ABA. At the Reykjavik Ministerial in 2021, a new Actions for Biodiversity was planned to be presented along with a final report on the implementation of the Actions for Arctic Biodiversity 2013-2021. However, development of the new Actions for Biodiversity has been delayed due to Covid-19 related challenges, including delays in international processes informing this process i.e., the Post2020 Global Biodiversity Framework. In response, the lifespan of the current Actions for Biodiversity was extended until 2023 and over 2021-2023 a new Actions for Biodiversity will be developed for delivery to the 2023 Arctic Council Ministerial meeting in the Russian Federation.

**Main activities:** This project will develop an Action Plan 2023-2030.

**Timeline:** 2023

## CAFF ADMINISTRATION

The CAFF International Secretariat is based in Akureyri, Iceland. CAFF was founded in 1992 via the Arctic Environmental Protection Strategy (AEPS). A ministerial agreement (1997) provides the framework for country contributions to the operation of the CAFF Secretariat. Sweden held the Chair in 2019–2021 during which time all but two management board meetings were held online. At the Reykjavík Ministerial meeting in May 2021, Finland will become the Chair (2021-2023). CAFF activities receive funding from a broad range of sources including for example States, Nordic Council of Ministers, and the Project Support Instrument (PSI) managed by NEFCO.

## CAFF COMMUNICATIONS AND OUTREACH

CAFF's communication goals are to:

1. Provide target audiences with timely, accurate, clear, and complete information on conservation issues for use in policy and decision-making;
2. Increase the understanding and profile of Arctic biodiversity amongst target audiences and work to incorporate biodiversity conservation across various sectors, ensuring the sustainable use of the Arctic's natural resources;
3. Raise CAFF's profile amongst target audiences as a credible, reliable, and authoritative voice in Arctic biodiversity research and policy;
4. Strategically employ a variety of ways and means to communicate, recognizing user needs, and the effectiveness of various channels;
5. Explore ways to communicate with Arctic communities; and,
6. Provide adaptive, responsive, and proactive communications support to CAFF audiences including Indigenous communities.

CAFF's main activities for communications and outreach include the development of communication tools and products as well as coordination and outreach initiatives for each project. Examples consist of reports, educational materials, social media, website development, webinar series, scientific posters, video production, photography competition, event hosting, presentations at key events, and press inquiries. Materials are translated into other languages when resources allow.

Arctic Monitoring and Assessment Programme  
(AMAP) final draft

## AMAP MANDATE

The Arctic Monitoring and Assessment Programme's (AMAP) mandate is to monitor and assess the status of the Arctic region with respect to pollution and climate change issues by documenting levels and trends, pathways and processes, and effects on ecosystems and people, and by proposing actions to reduce associated threats for consideration by governments.

## ACHIEVEMENTS 2019-2021

The AMAP Working Group (WG) work plan for the period 2019-2021 is found in the [Senior Arctic Officials' Report to Ministers 2019](#), and AMAP has, inter alia, undertaken the following work over the course of 2019-2021. This work was guided by the [AMAP Strategic Framework 2019+](#), which describes AMAP's mandate, mission, vision, guiding principles, strategic goals and implementation strategy.

### Covid-19 pandemic

Based on multiple communications, the Covid-19 pandemic has had a major impact on Arctic research, leading to many delays, logistical challenges, cancellations, and postponement of expeditions and other field work. Arctic science experienced many lost opportunities and data gaps in 2020–2021 resulting from the disruption of monitoring and research efforts. While this has not significantly affected AMAP work in the past period, it is likely to have impact on future work.

### Addressing issues of climate change and its impacts

For 2021, the AMAP Climate Expert Group (CEG) has prepared a technical report, *Climate Issues of Concern*, which builds on the outcome of past work on changes in the cryosphere (including [AMAP Climate Change Update 2019](#) and *Snow, Water, Ice and Permafrost in the Arctic (SWIPA) (2011, 2017)*) as well as prepares a foundation for expanding work on the impacts of climate change on ecosystems and societal impacts of climate change. The report contains an update of recent trends in Arctic climate parameters (e.g., air temperature and precipitation, permafrost temperature, snow cover, sea ice and land ice, tundra greenness, etc.). The report also contains an evaluation of how well the current climate models simulate several conditions (air temperature, sea-ice extent, ocean sea surface salinity) in the Arctic. The report reviews the frequency and intensity of various types of extreme events in the Arctic, including extreme high temperatures, rapid sea-ice loss events, and widespread melt events on the Greenland Ice Sheet, as well as high-impact events such as wildfires and coastal flooding and erosion. The report also explores the evidence concerning the extent to which climate-related changes in the Arctic may be linked to severe mid-latitude weather events and climate. In preparation for expanded future work, the report contains an initial review of physical

impacts of climate change on Arctic ecosystems and ecosystem feedbacks to climate, and also provides an initial consideration of climate impacts including extreme events on Arctic livelihoods and communities.

## Addressing contaminants and human health issues

**Persistent Organic Pollutants (POPs):** The *AMAP Assessment 2020: POPs and Chemicals of Emerging Concern Influence of Climate Change* examines the new observational evidence for previously hypothesized impacts of climate change and associated ecosystem changes on levels of POPs in the Arctic. Potential effects of climate change on POPs in the Arctic were first addressed by AMAP in 2002, and later in joint AMAP/UN Environment Programme (UNEP) work in 2011. Understanding climate change effects on contaminant sources, pathways and fate is critical for valid interpretation of temporal trends, including those used to evaluate effectiveness of actions to reduce pollution, including the *Stockholm Convention Effectiveness Evaluation* process. The assessment also includes an overview of Indigenous community involvement in POPs research and recommendations to enhance this participation.

**Mercury:** The *AMAP 2021 Assessment of Mercury in the Arctic* provides an updated analysis of trends and effects of mercury in the Arctic in relation to environmental processes that are also undergoing change in response to climate change, and also considers Indigenous perspectives on and contributions to mercury research and monitoring. The results of the assessment are framed so as to be of use in the context of effectiveness evaluation of the Minamata Convention. This assessment updates the previous AMAP mercury assessment from 2011 and builds on recently completed work, including the AMAP contributions to the *Technical Background to the UN Environment Global Mercury Assessment (GMA) 2018*.

**Human Health and Contaminants:** The *AMAP 2021 Assessment of Human Health in the Arctic* provides an updated analysis of biomonitoring data on contaminant trends in Arctic human populations, and new information on health implications of contaminant exposure, risk assessment methods and experiences with risk communication. The assessment also includes a first review of dietary changes in Arctic populations in recent years and some of the consequences, including in relation to dietary exposure to POPs and mercury as well as nutritional implications. The report builds on previous AMAP assessments in [2015](#), [2009](#), [2002](#), and [1998](#).

**Plastic Pollution / Litter and microplastics:** AMAP has undertaken a number of initiatives in support of the Icelandic Arctic Council Chairmanship priority on plastic pollution in the Arctic marine environment. In 2019, AMAP established the Litter and Microplastics Expert Group (EG) with the purpose to address pollution from plastics within the mandate of AMAP. This EG developed detailed technical guidelines for monitoring litter and microplastics in various environmental compartments, including in air, water, sediments, soils and biota in terrestrial, freshwater and marine environments. These guidelines are an important input to the Arctic Litter and Microplastics Monitoring Plan, also developed by AMAP. AMAP began to assess litter and microplastics as part of the AMAP assessment

on [Chemicals of Emerging Arctic Concern](#) (CEAC, 2017) and was involved in the preparation of the PAME [Desktop Study on Marine Litter including Microplastics in the Arctic](#).

**Air Pollution with a focus on Short-lived Climate Forcers (SLCFs):** The *AMAP 2021 Assessment: Arctic climate, air quality, and health impacts from short-lived climate forcers (SLCFs)* updates previous AMAP work on this topic, addressing SLCFs and co-emitted air pollutants in a more holistic manner. It presents new observational data together with updated information on emissions trends. The assessment also includes a first assessment of open biomass burning including wildfires. New emissions scenarios have been developed and utilized by modelling groups to investigate impacts of SLCFs on Arctic climate, ecosystems and human health and to evaluate implications of possible emissions reduction strategies. The same scenarios are used in an Organization for Economic Co-operation and Development (OECD) assessment of the economic benefits of air quality improvements in Arctic Council countries, also due to be published in 2021. The work has been coordinated to bridge scientific and policy-related activities under the Arctic Council (AMAP, EGBCM, ACAP) with those under other relevant fora including the *Convention on Long-Range Transboundary Air Pollution* (CLRTAP), OECD and the EU-funded *Action on Black Carbon in the Arctic*. Additional follow-up work is being considered under the AMAP 2021-23 workplan. The Icelandic Arctic Council Chairmanship continued the priority established under the Finnish Chairmanship to address SLCFs. AMAP's work on short-lived climate forcers (SLCF) therefore supports and is well coordinated with the work of the Arctic Council's *Expert Group on Black Carbon and Methane* (EGBCM)

final draft

## Contributing to international Conventions

The contaminants-related activities of AMAP, including those addressing human health, support activities under a number of international processes including the Stockholm and Minamata Conventions. AMAP data and information on temporal trends of POPs in air, biota and human media were provided for use in the WEOG (Western Europe and Others Group) regional component of the Stockholm Convention evaluation of global POPs monitoring data. The WEOG assessment is part of the *Stockholm Convention Effectiveness Evaluation* due to be completed in 2022. Information on the presence of chemicals of emerging Arctic concern from monitoring/screening studies as well as data regarding their chemical properties has also been provided for use in reviews of new chemicals under consideration for listing under the Convention, and to other bodies such as the *European Chemicals Agency*. AMAP work on climate change and SLCFs includes scientific results communicated to the IPCC for possible use in preparation of its AR6 report, to the 25<sup>th</sup> UNFCCC, and has been extensively coordinated with activities under other international processes including CLRTAP as well as work by OECD, WMO, IMO, CCAC, etc.

## Other actions in support of the Icelandic Chairmanship priorities

Another Icelandic Arctic Council Chairmanship priority is to improve the utilization of living marine resources, and Iceland is leading the development of a project on *Blue Bioeconomy in the Arctic*. AMAP is contributing to this project, mainly by providing information from recent AMAP work on *Adaptation Actions for a Changing Arctic* ([2017a](#), [2017b](#) and [2018](#)) and [Arctic Ocean Acidification](#) (2019).

### Increase international cooperation on sustaining observing

#### *Sustaining Arctic Observing Networks (SAON)*

SAON was established in 2011 following the Nuuk Declaration as a joint effort of the Arctic Council and the International Arctic Science Committee (IASC) to increase international cooperation on observing in the Arctic.

In its strategic plan from 2018, SAON identified as one of its goal the development of a roadmap to a well-integrated Arctic Observing System. In the period, SAON has developed the Roadmap for Arctic Observing and Data Systems (ROADS) to set a course towards systematically defining the needed observing and data systems and to specify how the various partners and players are going to collectively work towards achieving that system. Observations and data systems should serve multiple sectors and data user groups and ideally address priorities at the intersection of Arctic community-identified needs, regionally-identified cross-sectoral needs and those of the global observing programs. Shared benefit of the observing system is a guiding principle of ROADS, and the term *Shared Arctic Variables* has been developed to label variables that serve these multiple purposes.

In the period, the SAON Arctic Data Committee has initiated a series of workshops under the title Polar to Global Online Interoperability and Data Sharing Workshops.

AMAP appoints the Chair of SAON on behalf of the Arctic Council, and the SAON Secretariat is hosted by the AMAP Secretariat.

#### *World Meteorological Organization (WMO)*

AMAP has been engaged in WMO's activities mainly through participation in the Executive Council Panel on Polar and High Mountain Observations, Research and Services (EC-PHORS).

## LIST OF AMAP DELIVERABLES TO THE REYKJAVIK MINISTERIAL MEETING

- *Arctic Climate Change Update 2021: Key Trends and Impacts. Summary for Policy-makers;*
- *POPs and Chemicals of Emerging Arctic Concern: Influence of Climate Change. Summary for Policy-makers;*
- *2021 AMAP Mercury Assessment. Summary for Policy-makers;*
- *Impacts of Short-Lived Climate Forcers on Arctic Climate, Air Quality and Human Health. Summary for Policy-makers;*
- *Human Health in the Arctic 2021. Summary for Policy-makers;*
- *Overview of AMAP Initiatives for Monitoring and Assessment of Plastic Pollution in the Arctic; and,*
- *AMAP Litter and Microplastics Monitoring Plan.*

## AMAP WORK PLAN FOR 2021-2023

The *AMAP Strategic Framework 2019+*, including its guiding principles and strategic goals, continues to provide strategic direction for AMAP work to be undertaken under its work plan for 2021-2023. AMAP's work reflects the long-term commitment of the Arctic Council to monitor and assess changes in the levels of pollution and climate change and their impacts on Arctic ecosystems and human populations. AMAP assessments are intended to inform sound evidence-based policy- and decision-making, as well as serving the information needs of other relevant bodies and stakeholders. The *AMAP Strategic Framework 2019+* outlines mechanisms to ensure the appropriate operationalization of AMAP's strategic goals and the evaluation of AMAP's achievements and implementation.

The work plan reflects near-term priorities for the period 2021-2023 identified by AMAP and considers timing and allocation of resources, the needs and requirements of the Arctic Council as well as relevant international organizations and processes that use AMAP results in their work.

The work plan takes note of incoming Russian Federation Chairmanship priorities, both on Arctic climate and pollution, the latter in particular by addressing radioactivity and marine plastics.

As outlined in the *AMAP Strategic Framework 2019+*, achieving enhanced understanding of Arctic change and its impacts through inclusive partnership with Indigenous Peoples and local residents is of utmost importance. Hence, engagement of Indigenous Knowledge and Traditional and Local Knowledge will be emphasized. In addition, the work plan also recognizes the potential contributions of Observers to its work, and AMAP has initiated an informal dialogue with Observers in order to facilitate and strengthen Observer engagement in AMAP work.

## List of individual projects and activities

### *Addressing Issues of Climate Change and its Impacts*

**Lead/co-leads:** n/a

**WG partners:** Parts of the work connect to other Arctic Council WGs, specifically CAFF, ACAP and EGBCM (effects of climate change on ecosystems and ecosystem feedbacks to climate, including SLCFs).

**Other partners:** Observers such as the World Meteorological Organization (WMO) and the Intergovernmental Panel on Climate Change (IPCC).

**Rationale and overall objective:** It is clear that climate change is having widespread and immediate impacts on Arctic ecosystems and societies, but to develop measures to mitigate these impacts and create adaptation strategies, further information is needed on a smaller, more regional scale. Recent AMAP work that focused primarily on the physical changes in the cryosphere will be expanded to document the impacts of these and other climate-related changes in the Arctic, both in relation to ecosystems and ecosystem feedbacks to climate and to Arctic societies. AMAP climate work is becoming more integrated and will take a two-pronged approach. This will include drawing clearer linkages between climate-related physical changes and their impacts on various aspects of Arctic communities and societies, including the impacts of climate change and associated extreme events on infrastructure, livelihoods and economy, human health and well-being, and ecosystem services. Indigenous and other communities in the Arctic will be important participants in this work.

The results of this work will be useful for helping communities to develop adaptation and potential mitigation measures. In this area, some additional work on SLCFs not completed during the last Chairmanship will also continue.

#### Understanding climate change impacts on Arctic ecosystems and associated climate feedbacks

Climate change is altering Arctic ecosystems and biodiversity. These changes feed back to the climate system, with a potential to dampen or accelerate local to regional changes in climate and greenhouse gas emissions. The resulting impacts on ecosystem services, livelihoods and well-being will have far-reaching consequences for Arctic communities and beyond. The objective of this activity is to assess how climate change affects Arctic ecosystems and climate feedbacks to inform strategies for adaptation and resiliency.

The work will address how:

- Climate change impacts fundamental ecosystem properties and trigger ecosystem perturbations. Emphasis will be on how climate change could erode resilience, making Arctic ecosystems more prone to abrupt changes and tipping points, as well as changes over longer time periods. Assessments will encompass marine, coastal, freshwater and terrestrial ecosystems.

- The capability of ecosystems to regulate climate are impacted by climate induced changes. This entails feedbacks related to a range of mechanisms, including storage and release of carbon, hydrological fluxes and surface albedo.
- Climate-induced changes impact Indigenous Peoples, local communities and livelihoods, and how ecosystem-based adaptations could reduce the vulnerability of Indigenous Peoples and local communities to impacts.

PPs will be engaged in developing the project, identifying questions to be answered and how Indigenous Peoples and Indigenous Knowledge will be included.

**Main activities:** The activity Understanding climate change impacts on Arctic ecosystems and associated climate feedbacks will have these steps:

- **Step 1** – Preparatory Activities (2021): Co-design and prepare a detailed plan describing the topics, relevance, available datasets, methods, case studies and assessment products.
- **Step 2** – Implementation (2021-2023): Products might include reports, scientific articles, special journal issues, policy-summaries and communication products.
- **Step 3** – Follow-up (2023-2025): Joint AMAP/CAFF science assessment and Summary for Policy Makers.

A separate AMAP activity will review the impacts of climate change and associated extreme events on various aspects of Arctic societies, as described above. Activities on wildfires are coordinated with ACAP, CAFF and EPPR, while activities on climate impacts on human health and permafrost/methane hydrates related to human dimension work is coordinated with SDWG.

**Timeline:** A report on societal impacts of climate change in the Arctic is planned for 2023. Timelines are described under Main activities, above.

**Funding:** Participating national experts will have national support.

### *Addressing Contaminants and Human Health Issues*

**Lead/co-leads:** n/a

**WG partners:** Parts of the work connect with that of other Arctic Council WGs, specifically ACAP (chemicals and SLCFs), CAFF (pollution effects on biota; litter and microplastics), EPPR (radioactivity, wildfires), PAME (marine litter and microplastics), SDWG (human health), and EGBCM (SLCFs).

**Rationale and overall objective:** The aim is to inform policy-and decision-makers in the Arctic Council States, PPs and others, including Observer States and Organizations, on issues relating to contaminants and human health (both regionally and globally). This includes work requested by SAOs and Ministers to support further development and implementation of the Stockholm Convention, the Minamata Convention, CLRTAP, and work connected to the UNFCCC/IPCC as well

as UN Sustainable Development Goals (SDGs): #2 on food security, #3 on ensuring healthy lives, #6 on access to safe drinking water, and #13 on action to combat climate change and its impacts.

**Main activities:** An updated assessment of radioactivity issues of concern is planned for 2023. The assessment will describe the main sources of artificial radionuclides to and within the Arctic and the recent trends in activity concentrations of anthropogenic radionuclides in the Arctic environment. It will also provide new information about radioactive waste handling and decommissioning. It will report on the sources and recent trends in activity concentrations of naturally occurring radionuclides in the Arctic environment and will finally address possible effects that climate change might have on radioactivity in the Arctic.

Activities regarding human health include assessing impacts of climate change on health, further consideration of dietary transitions and their impacts and participating in coordinated work on effects of contaminants. AMAP is preparing work on the interaction between climate change, contaminants, and human and animal health, including zoonotic diseases. Parts of this work are under development in cooperation with SDWG.

Contributions from POP/mercury trend work as well as the human health monitoring are an important part of the planned input to the *Stockholm Convention Effectiveness Evaluation*.

AMAP work on SLCFs will continue and complete ongoing work. It is coordinated with activities under other bodies; it feeds into the work of the EGBCM and ACAP, and supports related work under CLRTAP bodies and other relevant groups concerned with air pollution and climate change.

In the period 2021-23, there will be focus on updating guidelines associated with contaminants monitoring to address contaminants of emerging Arctic concern and new approaches to monitoring, as well as the implementation of monitoring for litter and microplastics. In addition, work will be undertaken to identify knowledge gaps when it comes to physical and chemical effects of litter and microplastics on biota.

The AMAP Secretariat is working with PAME on work to implement an ecosystem-based approach to marine assessment and management. The AMAP Secretariat will also follow the work of the International Council on the Exploration of the Sea (ICES), the North Pacific Marine Science Organization (PICES) and PAME WG on the Integrated Assessment of the Central Arctic Ocean (WGICA).

**Timeline:** The activities are part of a coordinated plan for activities with deliverables in 2023. The updated assessment of radioactivity issues of concern is planned for 2023. Initial work on climate contaminants and health is planned to be delivered in 2022.

**Funding:** Participating national experts will have national support.

## ADMINISTRATION

The AMAP Secretariat supports the meetings of the AMAP WG and the AMAP Heads of Delegations (HoDs) and intersessional activities that follow from these. The AMAP Secretariat manages information on specific AMAP activities, supports the AMAP EGs, including work associated with arrangement of meetings and the production of deliverables. The AMAP Secretariat also manages AMAP's relations with the Arctic Council and the Arctic Council Secretariat (ACS), and with other external organizations.

Secretariat staff currently comprises an Executive Secretary and four Deputy Secretary positions, and an Administrative Officer. The AMAP Secretariat Office is in Tromsø, Norway, in office space shared with the ACS and the Indigenous Peoples' Secretariat (IPS). Core funding for the AMAP Secretariat is provided by Norway with additional contributions from other countries and funding bodies.

## COMMUNICATIONS AND OUTREACH

One of AMAP's strategic goals is to:

inform its target audiences by producing sound evidence-based, policy-relevant assessments, communications, and outreach products for use in policy- and decision-making processes as well as raising awareness in the general public. AMAP will work closely with other Arctic Council Working Groups, Permanent Participants, governments, Observers, educational institutions, the media, and other organizations to promote AMAP results. (*AMAP Strategic Framework 2019+*).

To that end, AMAP produces:

- peer-reviewed scientific and technical reports that target scientific and educational communities. These reports provide validated documentation for statements and conclusions communicated in AMAP deliverables to Arctic Council Ministerial meetings;
- Summaries for policy makers, consisting of a summary of the scientific reports, accompanied with science-based recommendations for policy makers; and,
- Science-based fact sheets, infographics, films and interactive presentation of the environmental status in the Arctic.

AMAP work is translated into other languages and provides the basis for a large number of scientific journal publications. AMAP work is presented at international conferences and other events. AMAP continues to upgrade and further develop AMAP website services.

AMAP will routinely evaluate the ways in which information on climate and pollution issues is consolidated and delivered. For climate issues, the rapid changes may point to a need for more frequently updated products, and there are deliberations on preparing shorter summaries on climate issues of concern.

# Arctic Contaminants Action Program (ACAP)

# final draft

## ACAP MANDATE

The Arctic Contaminants Action Program's (ACAP) 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, encouraging national actions to reduce emissions and releases of pollutants and to reduce environmental, human health and socio-economic risks. ACAP, in cooperation with national authorities and Permanent Participants (PPs), develops pilot projects that build capacity and demonstrate emission reduction activities for contaminants. Exchange of information and knowledge on best practices, technologies, regulations, and other measures among Arctic States are key instruments in this work. ACAP contributes to the implementation by the Arctic States of international conventions and related protocols relevant to the Arctic. ACAP strives to support pilot projects that contribute to the reductions of emissions of:

- Hazardous substances such as persistent organic pollutants (POPs), mercury, hazardous waste, and others regulated by international conventions;
- Short-lived climate pollutants (SLCPs) such as black carbon, methane and hydrofluorocarbons (HFCs); and,
- Pollutants of emerging concern, including marine litter and plastics/microplastics.

The work of ACAP is carried out within four Expert Groups (EGs): EG on Persistent Organic Pollutants (POPs) and Mercury, EG on Short-Lived Climate Pollutants, EG on Waste, and Indigenous Peoples Contaminant Action Program (IPCAP) EG.

Through applied pilot action projects, the ACAP EG on POPs and Mercury aims to promote elimination or reduction of POPs and mercury pollution from sources impacting the Arctic as well as strengthened capacity for compliance with international conventions. The ACAP EG on Waste develops demonstration projects that reduce the releases of contaminants, including marine litter, from industrial and municipal sources into the environment. The ACAP EG on SLCPs develops pilot projects to reduce SLCPs in Arctic States, summary reports on recommended mitigation actions and best practices, and projects focused on knowledge dissemination. The goal of the IPCAP Expert Group is to enhance involvement of Arctic indigenous Peoples' communities in reducing exposure and impact of contaminants in their communities by developing, coordinating and facilitating Arctic Council demonstration projects based on local participation and ownership.

## ACHIEVEMENTS 2019-2021

In follow-up to the [Rovaniemi Joint Ministerial Statement](#) (2019), [Statement by the Chair of the Arctic Council](#) (2019), and the [SAO Report to Ministers](#) (2019), ACAP has, inter alia, undertaken the following work over the course of 2019-2021.

ACAP continued to work toward reducing environmental risk and environmental pollution in the Arctic region through its four Expert Groups (EGs), in cooperation with other Arctic Council

Working Groups (WGs) and Expert Group on Black Carbon and Methane (EGBCM). There has been an increased focus on sharing information and best practices and showing the policy relevance of pilot projects.

These efforts have continued under the COVID-19 pandemic through online meetings, webinars on contaminants and SLCPs and strengthening of communication efforts (articles and press releases). A long-term effort on contaminants and SLCPs will be to the benefit of peoples in the Arctic, helping to prevent adverse impacts in Arctic ecosystems and peoples' health.

In October 2019, the ACAP Chair participated in the joint meeting between the Arctic Economic Council (AEC) and the Arctic Council, and contributed to the discussion on the need for green investments in the Arctic to support international commitments and low GHG emission developments. ACAP has also contributed to discussions on climate and energy at SAO meetings.

In 2020, [ACAP updated and harmonized mandates](#) of all its EGs to follow up on one of the recommendations of the Fridtjof Nansen Institute evaluation of ACAP carried out in 2019, prior to the Norwegian Chairmanship in ACAP.

The ACAP WG started actively using the opportunities provided by video conferencing platforms for its meetings about a year before the COVID-19 outbreak, and introduced a green travel policy. ACAP agreed, when possible, to have just one face-to-face meeting a year, and to hold all other meetings by teleconference to reduce its carbon footprint and improve its efficiency. Some project interruptions have occurred. For instance, the Workshop on Black Carbon and Methane from the Oil and Gas Sector was originally planned to take place as an in-person meeting in Moscow, Russia in April 2020. As a result of the pandemic, this event was postponed and held as a webinar in October 2020. A positive consequence of remote participation was increased involvement of PPs and Observers. Though there has been some general slowdown in the project related work due to the COVID-19 pandemic, most projects and ACAP's work in general have progressed as planned.

## SUMMARY OF ACHIEVEMENTS 2019-2021

### EG POPs and Mercury (EG POPs/HG)

This EG continued its work in developing, coordinating and facilitating Arctic Council demonstration projects that aim at detecting, reducing and possibly eliminating the formation and release of POPs and mercury into the environment. Support and follow-up on the Russian National Implementation plan of the Stockholm Convention will continue to identify pertinent work in this area. Two projects, the Updated and Broadened Inventory of Primary Emission Sources of Selected POPs and Mercury, and the Inventory Programs, Control Technologies and other Support to Russia's Compliance with International Convention Requirements, have been refined to cover both POPs and mercury. The first project has received funding from the [Project Support Instrument](#) (PSI), as has also the project Promotion of Best Available Techniques (BAT) in the Russian Federation. An Inception Report for the project ARCRISK – Mercury Risk Evaluation, Risk Management and Risk Reduction Measures in

the Arctic was completed, and the project is entering its implementation phase with PSI financing. The EG held an ACAP Workshop on Mercury to share knowledge and best practices, and prepare communication and outreach materials on mercury-related issues in the Arctic for the 2021 Ministerial meeting. To follow up on the workshop, ACAP and the EG developed a [web article](#) based on the available knowledge and ongoing work, calling for coordinated and effective actions against mercury pollution. Coordination with AMAP's POPs EG and Mercury EG was undertaken to ensure complementary and mutually reinforcing work.

### EG on Waste (EGW)

ACAP continued its efforts in developing, coordinating and facilitating Arctic Council demonstration projects that improve environmentally sound management of hazardous waste; reduce the releases of contaminants from industrial and municipal waste into the environment; support proper municipal waste management for both solid and liquid waste; and enable communities, including Indigenous and remote communities, to develop more sustainable and efficient waste management practices to prevent contamination from waste and the proliferation of marine litter. The Rapid Environmental Assessment (REA) project demonstrating the United Nation's (UN) Food and Agriculture Organization (FAO) developed technique to evaluate human health and environmental threats of pesticides storage facilities in three Arctic regions of Russia, has been completed. The results are presented in a final project report.

The EG has begun the implementation of the Aqueous Film Forming Foam (AFFF) and other Per- and polyfluoroalkyl substances (PFAS) containing Fire-Fighting Foam Phase Out in the Arctic project and continues to develop the project on the Assessment and mitigation of risks from a municipal solid waste landfill in permafrost area in Russia (Dudinka Landfill project). The project Demonstration of Management and Destruction of 250 Tons of PCB in Transformers: Phase III is being developed based on an ongoing UN Industrial Development Organization/Global Environmental Fund (UNIDO/GEF)/Russian Railways PCB project to support the Russian National Implementation Plan of the Stockholm Convention.

### EG Short Lived Climate Pollutants (EG SLCP)

ACAP continued to focus on the development, coordination and facilitation of Arctic Council demonstration projects that reduce SLCPs emitted, transported and/or deposited in the Arctic. The [Black Carbon Case Studies Platform](#), a one-stop shop for sharing information on black carbon (BC) reduction activities in the Arctic, currently highlights more than 70 case studies. Project leads have also worked with EGBCM and introduced links to emissions inventories from Arctic States and Observers to the platform.

The project Mitigation of Black Carbon and Methane Emissions from Associated Petroleum Gas (APG) Flaring in the Arctic Zone of the Russian Federation published a completion report from Phase

II: *The Use of New Methodology to reduce APG Flaring at Remote Fields*. The detailed report provides an analysis of the technological and economic effects of implementation of the Novoportovskoye investment project (Stage II), as well as an analysis of the current regulatory systems in all Arctic States, aimed at the reduction of soot and methane emissions from APG flaring. The report also addresses APG reinjection technology scaling and commercialization potential in the Russian Arctic Zone. In October 2020, ACAP, in cooperation with the Ministry of Natural Resources and Environment of Russia and the Nordic Environment Finance Corporation (NEFCO), held a Webinar on Black Carbon and Methane from the Oil and Gas Sector to take stock of knowledge on the scale and characteristics of emissions from the oil and gas sector, present and discuss current and possible mitigation actions and strategies. A report on the workshop with policy recommendations will be submitted to the 2021 Ministerial meeting as well as a project video involving participation from several Arctic States. *Phase I Report for the project Phase-out of Ozone Depleting Substances and Fluorinated Greenhouse Gases at Fish and Seafood Processing Enterprises of the Murmansk Oblast* was released in the fall of 2019. The project is now in Phase II. The Inception Report for Phase II was released in June 2020. The Pilot Project for Reducing CO<sub>2</sub> and Black Carbon Emissions on the Rivers of the Arctic Zone of the Russian Federation (“Arctic Green Shipping”) is expected to complete the final report from Phase I by the end of 2020. Preparatory assessments were performed during Phase I enabling identification of key steps for implementing Phase II (Feasibility Study(-ies)).

## Indigenous Peoples’ Contaminants Action Program (IPCAP)

The EG IPCAP continued its work on projects that enhance involvement of Arctic Indigenous Peoples’ communities in reducing exposure and impact of contaminants in their communities by developing, coordinating and facilitating Arctic Council demonstration projects based on local participation and ownership. The Circumpolar Local Environment Observer Network (CLEO) continued to grow, making good progress in the Sápmi area across borders of Sweden, Finland and Norway. A project on the establishment of a Reindeer Herders’ CLEO hub was implemented in Kautokeino, Norway. Continued work has been undertaken in Alaska and Canada. New funding has also been received for the expansion of the LEO Network to the Far East of Russia from the Beringia Program, with the plans to establish two new hubs in the Russian regions of Yakutsk and Chukotka. This progress provides an opportunity to complete the efforts for the LEO Network to become circumpolar.

The Community-Based Black Carbon and Public Health Assessment aims at evaluating, on a pilot-project basis, local sources of black carbon emissions from a representative sampling of Arctic Alaskan and Russian villages. Key partnerships and contacts were established in Alaska and Russia to facilitate ongoing work. Progress on the project included the completion of a desk study under which the project gathered inventory data; developing guidance on assessing emissions and measuring concentrations of black carbon; demonstrating monitoring in an Alaskan village; initiating regulatory requirements for research involving human subjects in Alaska and Russia; and developing public health survey templates for identified communities.

The Kola Waste project successfully completed the clean-up of 96 tons of waste from unauthorized dump sites in three Sámi communities in the Murmansk region, Russia. This work will continue during the next several years and also share experience and best practices with the Solid Waste Management in Remote Arctic Communities project.

## LIST OF ACAP DELIVERABLES TO THE REYKJAVIK MINISTERIAL MEETING:

- Report on the establishment of the Circumpolar LEO Network;
- Report on the ACAP Webinar on Black Carbon and Methane from the Oil and Gas Sector with policy recommendations and a video on the Mitigation of Black Carbon and Methane Emissions from APG Flaring in the Arctic Zone of the Russian Federation Project;
- *Mitigation of Short-Lived Climate Pollutants from APG-Flaring* project phase 2 Final report on the use of new methodology to reduce APG flaring at remote fields;
- *Kola Waste Project Report*; and,
- Report demonstrating Rapid Environmental Assessment technique to evaluate human health and environmental threats of pesticides storage facilities in three Arctic Regions of the Russian Federation.

### Communication and outreach materials:

A video on mitigation of SLCP from APG-flaring; webinars on black carbon and methane from the oil and gas sector and on mercury; articles on black carbon, mercury and waste management; and other communication materials.

## ACAP WORK PLAN 2021-2023

### Introduction

ACAP underlines that cooperative actions are needed to reduce emissions and environmental damage in the Arctic and to support commitments under relevant international conventions. ACAP will continue to develop concrete project proposals within this mandate, considering the needs of Arctic indigenous communities by incorporating traditional knowledge and local knowledge when appropriate. The projects identified in ACAP's work plan include project proposals that have already been approved by ACAP and that are currently under development for future ACAP consideration. Additional proposals may be developed within the scope of this work plan during 2021-2023 period.

ACAP has increasingly focused on solid waste management, particularly as it relates to the need to reduce marine plastic litter and the release of microplastics into the Arctic environment. This is a cross-cutting issue that will require cooperation among the relevant Arctic Council WGs, in particular SDWG. Proper waste management in remote areas, as well as reuse, recycling and greater resource efficiency will have positive health effects for the population. ACAP encourages multi-disciplinary,

multi-pollutant projects and is noting its intention to continue scoping out such activities in 2021-2023.

Implementation of planned projects is contingent on securing financing for those projects. ACAP may advance approved projects for funding to the PSI and other funding sources as appropriate. Future SAO decisions related to the PSI will be followed by ACAP, and the work plan will be modified accordingly.

## List of individual projects and activities

### Expert Group POPs and Mercury (EG POPs/HG)

#### *P1.2 – Pilot Project for Russian Cement Industry*

**Leads/Co-leads:** Russian Federation/Sweden

**Rationale and overall objective:** Promote the Introduction of Best Environmental Practice and Best Available Techniques, aiming at reducing emission of dioxins and mercury emissions from cement producing industries in Russia.

**Main activities:** Based on previous case studies in Vorkuta, Russian Federation, the project will conduct i) An applied feasibility study at a selected pilot enterprise among the Russian Cement Industries, in parallel with ii) capacity building of the industry's technical staff and top management as well as with relevant regional environmental authorities, and iii) the drafting of phased reconstruction measures. In a second phase, these reconstruction actions will be implemented.

**Timeline:** No timeline has been set yet but 2021-2023 is anticipated.

**Funding:** An application for PSI funding will be developed for a Feasibility Study (Phase I), possibly followed by a pilot reconstruction project (Phase II), which will likely depend on PSI funding in combination with funds from the owner.

#### *P2 - Inventory of uses of POPs and Mercury and their Emission Sources in Murmansk Region*

**Lead/Co-leads:** Russian Federation, Sweden, Finland

**Rationale and overall objective:** The Murmansk region has a wide range of activities that potentially use and/or release POPs and mercury, but the extent of their spreading and impact is not known. The project collects the available information on uses and releases of POPs and fills in identified information gaps through sampling and analysis. The project seeks to collect the existing information on uses and releases and identify gaps that could be filled-in through analyses. The outcome of the

inventory will support Russian implementation of the Stockholm Convention and Minamata Convention as the project has been initiated in cooperation with the Stockholm Convention Regional Centre in the Russian Federation (Novosibirsk). The result will also be used to identify efficient means to reduce releases of these pollutants.

**Main activities:** Engagement with relevant authorities at all stages; collecting existing information on uses and emissions; training of a Russian team of experts on the inventory, sampling and analysis of selected priority POPs and mercury; inventory of the identified uses and emission sources; report on uses and emissions of POPs and mercury in Murmansk; development of demonstration projects.

**Timeline:** 2021-2023

**Funding:** The PSI Committee approved the Final Investment Decision of a PSI commitment of up to EUR 350,000 for the project.

### *P3.1 - Control Technologies*

**Leads/Co-leads:** Russian Federation

**Rationale and overall objective:** The aim of this project is to reduce or eliminate the formation and emission of POPs and mercury from sources in Russia affecting the Arctic environment. It seeks to present a program for the introduction and dissemination of techniques and management systems for reducing formation and emission of dioxins.

**Main activities:** A review of relevant Best Available Techniques and Best Environmental Practice (BAT-BEP) compliant to the Stockholm Convention on POPs and the Minamata Convention on Mercury, technical/operational recommendations, guidance on methodology, outreach workshops, and an education program for staff in federal and regional level authorities and relevant sectors. Follow-up activities may include a draft program for the introduction and dissemination of control technologies and reference materials on a publicly accessible website.

**Timeline:** 2022-2024

**Funding:** Once approved by ACAP, the project leads will apply to the PSI for funding.

### *P3.2 - Promotion of Decreased Pollution in the Arctic Region with the Introduction of BAT*

**Leads/Co-leads:** Russian Federation

**Rationale and overall objective:** The project goals are to prevent and decrease pollution of the Arctic and Barents regions based on BAT knowledge delivery to enterprises and universities, and to facilitate investments in the area.

**Main activities:** Capacity building, feasibility studies, and additional interventions when required, in cooperation with industry, academia and research/design bureaus. These activities implement BAT at selected enterprises in the key industrial sectors through applicable cleaner production, resource efficiency measures and feasible environmental investments. The seven sectors include: 1) pulp and paper industry; 2) the mining, mineral and metallurgical industry; 3) oil and gas industry; 4) the organic chemical process industry; 5) the inorganic chemical process industry; 6) water and wastewater treatment and management; and 7) combined heat and power (CHP) combustion plants, including combined incineration.

**Timeline:** The project has been on hold for about 3 years due to a study reservation that was lifted in December 2020 and implementation will start in 2021.

**Funding:** PSI funding approved for up to 425,000 EUR.

#### *P4 – Convention Promotion Project*

**Leads/Co-leads:** Russian Federation/Sweden

**Rationale and overall objective:** The Ob River has been recognized as the most polluted river in Russia. Within the river Ob basin, there are several groups of enterprises, which make potential sources of POPs and mercury releases. However, no monitoring of POPs and mercury in the river floodplain is carried out, and there is also no research data on the distribution, accumulation and transport of POPs and mercury by the river towards the Arctic. The purpose of the proposed project is to assess the POPs and mercury in the Ob River basin and promote the drafting of appropriate action plans for reduction of this pollution and to connect these actions plans to the Russian National Implementation Plan (NIP) for the Stockholm Convention on POPs.

**Main activities:**

1. Study of the content of POPs and mercury, e.g. in predatory sedentary fish of the Ob River basin to assess the distribution, accumulation and transport of POPs and mercury to the Arctic;
2. Analysis and presentation of the obtained data;
3. Outreach activities to authorities, communities, enterprises and other stakeholders to motivate them to take steps to prevent the pollution of the Arctic North with POPs and mercury and to protect the indigenous population of the North from the effects of these pollutants. In parallel;
4. Desk top study on emissions and discharge sources in the basin will be conducted; and,
5. Review of current environmental action plans at relevant enterprises and administrative entities. The outputs from activities 1-5 will finally be compiled into 6) recommendations for the inclusion of the Ob River basin in the Russian NIP for the Stockholm Convention on POPs, as well as any preparatory steps for a possible Russian NIP on the Minamata Convention on Mercury. The project proposal will be coordinated with AMAP.

**Timeline:** 2022-2024

**Funding:** Once the project is approved by ACAP, the project leads will apply to the PSI for funding.

### *P5.2 - Russian Chlor Alkali Conversion Project*

**Leads/Co-leads:** Russian Federation, United States

**Rationale and overall objective:** To promote the reduction of emissions and releases of mercury that impact the Arctic region by facilitating the decommissioning (closure) or conversion (to a non-mercury production process) for the remaining three Russian chlor-alkali facilities that still use a mercury-cell process.

**Main activities:** Elaboration of Guidelines on Best Environmental Practices (BEP) for Environmentally Sound Management (ESM) of Mercury Contaminated Sites in the Arctic Region, which would include the development of a case study highlighting a successful Russian (or other Arctic) mercury-cell chlor-alkali facility conversion project that employed “Best Environmental Practices.” The case study, preferably applied on one of the remaining facilities, will include sections detailing the managing of the conversion or decommissioning process with:

1. Reference documents (Facility conversion guidelines; Guidelines for management, storage and disposal of excess mercury; Applicable national and international laws and regulations; Company Internal procedures, schedules, action plans);
2. Team Organization (process, procurement, waste management, etc.);
3. Outline of the Phasing of the conversion or decommissioning process; and,
4. Outreach materials on the Good practices learned.

A second phase (pending outcomes of phase I) will facilitate the implementation of a pilot action project on a selected site.

**Timeline:** No timeline has been set yet but 2021-2023 is anticipated.

**Funding:** An application for PSI funding will be developed for Phase I. Phase II will likely depend on PSI funding in combination with funds from the facility owner.

### *P7 - Outreach to Communities, Industries and Other Stakeholders on Hazardous Substance Prevention in the Arctic*

**Leads/Co-leads:** Sweden

**Rationale and overall objective:** The EG has identified the need for an effective communication strategy regarding its activities, pilot projects and the hazardous substances within its scope to be

tailored for various target groups – from industrial branch organizations and administrations to local settlements and schools – to a large extent as a means of communication for achieving results. The identified need, however, also includes the smooth interconnection between other AC working groups, etc. The aim is to be able to present and convey the information in such a way that it can be easily understood and acted upon.

**Main activities:** Outreach materials on the formation of hazardous substances such as POPs and mercury, their effects on health and environment as well as measures to eliminate the contamination and its effects. These products will be produced and presented to different Arctic target groups including local communities and industries. Progress and results of other projects from the EG will also be presented and channelled to relevant target groups. Furthermore, the project is intended to include cooperation with AMAP and one or more ACAP EGs. In order to identify potential areas of collaboration on practical measures, sources of POPs and mercury will be selected with the aim to achieve risk reduction in the Arctic. An initial contact has been established with AMAP. Currently, the EG is considering formulation of one initial (pilot) activity and will invite ACAP EGs to contribute to the project in the future. The first information products issued in this perspective will be a set of (updated) fact sheets delivered to the 2021 Ministerial meeting, followed by a few more sets of fact sheets on mercury, PCB and PFAS later this year.

**Timeline:** No timeline has been set but 2021-2023 is anticipated.

**Funding:** The initial activities are assumed to be financed from the collaborating subsidiary bodies.

### *P8 - ARCRISK – Mercury Risk Evaluation, Risk Management, and Risk Reduction Measures in the Arctic*

**Leads/Co-leads:** Norway

**Rationale and overall objective:** The aim of this project is to develop an action plan with targeted risk reduction measures for mercury releases from key sources in the Arctic.

**Main activities:** The project is comprised of six work packages that include the following list of activities to be carried-out: inception, mercury source inventory, risk evaluation of mercury and multiple stressor impacts, demonstration of sound reduction measures, stakeholder involvement, capacity building and dissemination, and project management.

**Timeline:** The inception phase was completed in 2020 with funding from the PSI. For the following Implementation Phase, with working packages WP2-WP6 planned for 2021-2022.

**Funding:** The PSI Committee approved the Final Investment Decision of a PSI commitment of up to EUR 789 000 for the project.

EG on Waste (EGW)*Demonstration of Management and Destruction of 250 tons of PCB in Transformers and Capacitors (Phase III)*

**Leads/Co-leads:** Russian Federation

**Rationale and overall objective:** Parties to the Stockholm Convention on POPs must make determined efforts designed to lead to environmentally sound waste management of PCB containing liquids and equipment as soon as possible but no later than 2028. This project will build on the experiences of the UNIDO-GEF funded project Environmentally Sound Management and Disposal of PCB at the Russian Railroad Network and Other PCBs Owners (Phase I), implemented by the United Nations Industrial Development Organization (UNIDO) and Russian Railways. The PSI Committee approved funding for a feasibility study to further develop the project in cooperation with ACAP's EG on Waste. The project is awaiting necessary inputs from Russian Railways and the Russian Federation's Ministry of Natural Resources.

**Main activities:** In the first phase, an independent evaluation of the UNIDO-GEF project and the current situation on PCB management in the Russian Federation will be carried out in a feasibility study. In the second phase, the identified activities will be implemented. Further details will be established within the course of the independent evaluation.

**Timeline:** 2021-2022

**Funding:** Funding approved for a feasibility study by the PSI Committee.

*AFFF (Aqueous Film Forming Foam) and other PFAS containing Foam Phase Out in the Arctic*

**Leads/Co-leads:** Finland, United States

**Rationale and overall objective:** Fluorinated aqueous film-forming fire-fighting foams (AFFF), containing per- and polyfluoroalkyl substances (PFAS), are used in airports, refineries and other high-risk facilities. They represent a potential direct release of highly persistent, toxic and bioaccumulative chemicals into the environment. The Arctic region is particularly susceptible to PFAS contamination due to the sensitivity of the ecosystem, and the potential for long range transport and deposition of PFAS in the Arctic ecosystems, and it is important that any further jeopardy to it is minimized.

The project will develop cost effective and appropriate recommendations for the removal of PFAS-based firefighting foams for all applications within the Arctic region, without jeopardizing risk reduction. It will also outline alternatives to fluorinated foams. Results will be relevant to the EPPR and AMAP and will be shared with these WGs.

**Main activities:**

1. Review of current legislative fire and environmental requirements in Arctic States;
2. Identify foam users by sector and facility in the Arctic; and,
3. Demonstrate transition into sustainable fluorine-free foams in 10-12 facilities on different sectors in the Arctic.

**Timeline:** 2021-2022**Funding:** The project has received funding from PSI (up to EUR 345, 900) and the implementation will begin in early 2021. The majority of the costs of transition will be borne by the companies participating in the project.*Assessment and mitigation of risks from a municipal solid waste landfill in permafrost area***Leads/Co-leads:** Russian Federation**Rationale and overall objective:** Dudinka city landfill in Russia is located on permafrost about 500 meters (m) from the Yenisey River in Krasnoyarsk Krai. The project aims to assess adverse environmental impacts of the landfill on the Arctic environment and develop remediation technology in the remote Arctic permafrost zone.**Main activities:**

1. Survey work, analysis of existing approaches to rehabilitation of waste accumulation sites and the selection of BAT for the remediation of the Municipal Solid Waste (MSW) landfill in Dudinka;
2. Implementation of remediation of the MSW landfill in the city of Dudinka; and,
3. Identification of MSW landfills and dumps located in the Russian Arctic, for the purpose of replicating sound methodological approaches and introduction of the BAT for the rehabilitation of the MSW landfills.

**Timeline:** No timeline has been set yet but 2021-2023 is anticipated**Funding:** A consultant has been hired to prepare a feasibility study and a project plan on a grant received from PSI. The project initiation will be subject to ACAP WG approval of the plan. It will be coordinated with and may benefit from the circumpolar project on Solid Waste in Remote Communities.

EG on Short Lived Climate Pollutants (EGSLCP)

*Black Carbon Case Studies Platform*

**Leads/Co-leads:** United States

**Rationale and overall objective:** Provide a one-stop shop for public information on black carbon work being undertaken in the Arctic. The case studies will provide insight that can be used to translate results, replicate projects, and disseminate lessons learned.

**Main activities:** Continue to add new case studies to the Arctic Environmental Response Management Application ([Arctic ERMA](#)) website and develop new showcase studies. Increased outreach will also be undertaken by Arctic States, PPs and Observers. Work showcased on the platform will be expanded beyond case studies to highlight inventory work undertaken by the EGBCM, and potentially the work of other groups focused on black carbon science and policy affecting the Arctic.

**Timeline:** Ongoing

**Funding:** No funding required to develop these case studies.

*Phase-out of Ozone Depleting Substances and Fluorinated Greenhouse Gases at Fish and Seafood Processing Enterprises of the Murmansk Oblast*

**Leads/Co-leads:** Russian Federation

**Rationale and overall objective:** The project will support implementation of the Montreal Protocol and the UNFCCC Paris Agreement. This is the biggest project in the PSI portfolio. The project, which is currently in Phase II, seeks to phase out hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs) at fish and seafood processing enterprises of the Murmansk oblast in Russia. Project objectives include:

1. Transferring ozone and climate-safe technologies to onshore fish and sea food processing enterprises that use hydrochlorofluorocarbons and hydrofluorocarbons in refrigeration and air-conditioning equipment;
2. Transferring knowledge to enterprises engaged in repair and after-sales service of onboard refrigeration and air-conditioning equipment in the Murmansk oblast;
3. initiating conversion of equipment to environmentally safe refrigerants;
4. Completing feasibility studies – including inventories – to phase out HFCs-HCFCs Ozone-Depleting Substances (ODS) and management of end-of-life HFC/ODS refrigeration and freezing systems at the on- and off-shore fish and seafood processing and servicing enterprises; and,

5. Developing project documentation and implement transfer and commissioning of ozone and climate-safe technologies including capacity-building measures.

**Main activities:** The project will contribute to reduce GHGs equal to 380 000 tons of CO<sub>2</sub>-equivalents. Phase II includes:

1. the purchase, installation, commissioning and subsequent maintenance of alternative technologies in fishing vessels and on-shore processing facilities;
2. the creation of HFC and HCFC consumption monitoring systems for these enterprises;
3. public awareness activities; and,
4. efforts to promote replication in other regions of the Russian Arctic.

**Timeline:** 2021-2023 (target date)

**Funding:** Financing was approved [up to EUR 4,000,000] by the PSI Committee for Phase II in the end of 2019.

### *Pilot Project for Reducing CO<sub>2</sub> and Black Carbon Emissions on the Rivers of the Arctic Zone of the Russian Federation*

**Leads/Co-leads:** Russian Federation

**Rationale and overall objective:** Significantly reduce atmospheric emission of SLCPs from river shipping in northern regions of the Russian Arctic. In addition, the project seeks to decrease atmospheric emissions and water discharges of local pollutants and contaminants. Best practices could be replicated in other regions of the Russian Federation, the Arctic and around the globe. The project also intends to address reduction of ozone-depleting substances (ODS) and hydrofluorocarbons (HFCs) in river shipping in northern Russia. Reduction of identified atmospheric emissions, as well as reduction of contaminated water discharge, could be achieved through:

1. Creation of regulatory measures, standards and market environments to facilitate the design and deployment of more efficient and less polluting ships based on BAT;
2. Pilot development of a new class of ships for operation on the rivers of northern Russia; and,
3. Wide dissemination of results, lessons learned, and best practices.

**Main activities:** The completion report for Phase I, Preparation of a Pre-Feasibility Study of the Project, is being finalized. Preparatory assessments were performed during Phase I enabling identification of key steps for implementing Phase II, Feasibility Study(-ies).

**Timeline:** 2021-2023 (target date)

**Funding:** Financing for Phase I was approved by the PSI Committee. Phase II financing is pending approval by the PSI Committee. Ultimate beneficiary LLC Volgotrans is to implement and co-finance

the following stages (Phases II-IV). The completion report for the first phase containing recommendations regarding the second phase, including possible investments, is being finalized.

### *Wildland Fire Management Practices and Emissions of Black Carbon and Other Air Pollutants*

**Leads/Co-leads:** All

**Rationale and overall objective:** The aim of this project is to gather and disseminate information on land, forest and fire management practices that can help reduce emissions of black carbon and other air pollutants in Arctic States.

**Main activities:** This project will entail the production of a report on wildland fires, fire management practices and impacts on emissions of black carbon and other air pollutants. This work will be done in coordination with the other Arctic Council Expert and Working Groups, which are undertaking work on various aspects of wildfires, including: AMAP, CAFF, EPPR and EGBCM.

**Timeline:** 2021-2023

**Funding:** There are no costs associated with the production of this report, however in-kind support from all Arctic Council States will be required (i.e., provision of information, drafting, etc.).

IPCAP Expert Group

### *Circumpolar Local Environmental Observer Network (CLEO)*

**Leads/Co-leads:** United States, Sweden, Norway

**Rationale and overall objective:** The purpose CLEO is to increase awareness of vulnerabilities to the impacts of unusual changes in the environment through observations by local residents of Arctic communities.

**Main activities:** The leads will continue to promote CLEO in the Arctic region, including some regions of the Russian Arctic, and expanding youth engagement through academic and cultural institutions. Technology, tools development, and monthly seminars are all areas of focus for the U.S. Arctic. The project will strive to increase activity in Sápmi through the Saami Council member organizations and the International Centre for Reindeer Husbandry (ICR) Program Office.

**Timeline:** ongoing (or in progress)

**Funding:** Sweden, United States and Norway

### *Community-Based Black Carbon and Public Health Assessment*

**Leads/Co-leads:** Aleut International Association (AIA), Russian Federation, United States

**Rationale and overall objective:** Assess, on a pilot basis, local sources of black carbon emissions from a number of Alaskan, Russian and Saami villages. The project will:

1. Provide a broad characterization of associated public health risks;
2. Explore short- and long-term mitigation options;
3. Assess and, where possible, strengthen local capacities to identify, mitigate, and prevent black carbon pollution;
4. Draft a framework tool for community-based assessments of black carbon emissions and health risks; and,
5. Educate local communities about black carbon emissions and risks.

**Main activities:**

1. Establish community environmental hubs that will increase local capacity to identify and mitigate black carbon/PM 2.5 and related health risks;
2. Identify air pollution and short-lived climate forcing caused by black carbon emissions;
3. Identify public health threats to local and indigenous Arctic communities;
4. Work with communities to develop actionable, fundable black carbon and public health risk mitigation plans; and,
5. Facilitate community linkages with technical experts, government authorities (local, state/regional and/or national, as appropriate) and other decision makers, funders or organizations able to support implementation of action plans mitigation strategies and activities.

**Timeline:** 2021-2023

**Funding:** The PSI Committee approved the Final Investment Decision of a PSI commitment of up to EUR 1,100,000 for the project on 22 December 2020.

### *Solid Waste Management in Remote Arctic Communities*

**Leads/Co-leads:** AIA, United States, Saami Council, Canada, Finland, Norway

**Rationale and overall objective:** Building upon previous ACAP work, the project seeks to collaborate with the SDWG to share expertise and leverage resources in scaling up solid waste management activities.

**Main activities:**

1. Develop an online exchange toolkit;

2. Identify 3-5 communities to work with on pilot measures;
3. Develop capacity building planning tools; and,
4. Develop a template for an Arctic Council standards model.

**Timeline:** 2021-2023

**Funding:** The PSI Committee approved the Final Investment Decision of a PSI commitment of up to EUR 500,000 for the project on 15 March 2021. The lead countries have also provided financial and in-kind contributions for the project.

## ADMINISTRATION

The ACAP secretariat is located in Tromsø, Norway and is staffed by the ACAP Executive Secretary within the Arctic Council Secretariat (ACS) at the Fram Centre. Funding for approved ACAP projects is provided by Arctic States, the PSI and other funding mechanisms as appropriate. ACAP meets twice per year (face-to-face or online), supplemented with online meetings as required, to discuss projects and priorities in the work plan as well as new projects within the ACAP mandate. ACAP attends meetings of the Senior Arctic Officials (SAOs), WGs, Task Forces (TFs) and other Arctic related events deemed appropriate by ACAP Chair. Norway has held the Chair of ACAP during 2019-2021, supported by the U.S. as Vice-Chair. The United States will take over for the period 2021-2023.

ACAP will consider reviewing and updating the ACAP Strategy to Address Contamination of the Arctic Environment and its People during 2021-2023.

## COMMUNICATIONS

The ACAP Executive Secretary, with support from the ACS, maintains the ACAP website, ACAP SharePoint, and ACAP Twitter account. Outreach materials such as factsheets and short videos are produced either by the ACAP Secretariat with support from the ACS or in cooperation with lead countries and lead funders of the relevant projects. The ACAP Chair and Executive Secretary accept invitations to speak about the work of ACAP in relevant settings and with interested stakeholders. Communicating the results of ACAP projects is a high priority for ACAP and is an area where increased resources will be assigned.

### Awareness Raising

Strengthened communication and awareness raising has been one of ACAP's priorities as it contributes to capacity building at national and local levels for scaling up pollution mitigation efforts and bringing about the necessary change. During 2019-2021, ACAP has held awareness-raising workshops and webinars dedicated to issues such as:

- Circumpolar Local Environmental Observer Network;

- Mercury and POPs, combined effects of mercury and other contaminants on human health and ecosystems; and,
- Mitigation of black carbon and methane emissions from the petroleum sector.

A webinar and an experience exchange tour aimed at communication of the Kola Waste project outcomes, as well as at mobilizing schools and local communities in the CLEO network will take place in 2021/22. A series of webinars on black carbon and health hosted by different Arctic communities is planned for the fall of 2021. Through its awareness-raising activities, ACAP wants to show success stories and encourage Arctic States to strengthen their measures and to engage private sector and communities in efforts to reduce emissions and damage to the Arctic environment.

final draft

Expert Group on Black Carbon and Methane  
(EGBCM) **final draft**

## EGBCM MANDATE

Based on accumulating evidence on the contribution of black carbon and methane to the warming of the Arctic, the Arctic Council agreed in 2015 to adopt the Framework for Action on Enhanced Black Carbon and Methane Emissions Reductions. The Framework is a non-legally binding agreement which lays out a common vision for Arctic States with enhanced, ambitious, national and collective action to accelerate the decline in overall black carbon emissions and to significantly reduce overall methane emissions. The Expert Group on Black Carbon and Methane (EGBCM) was established to implement the Framework.

As part of this Framework, Arctic States agreed to submit biennial national reports on emissions and actions reducing emissions and to periodically report on progress and provide recommendations on enhanced action. At the 2017 Arctic Council Ministerial meeting, a first edition of the Summary of Progress and Recommendations was adopted, including a collective aspirational goal to reduce black carbon emissions by 25-33 percent relative to 2013 levels by 2025. All Arctic States associate themselves with the goal.

As emissions of black carbon and methane outside of the Arctic also contribute to both Arctic and global warming, Arctic Council Observers have been invited to join the Arctic States in efforts to reduce emissions of black carbon and methane and to submit similar reports on their progress.

## ACHIEVEMENTS 2019-2021

The main deliverable to the Reykjavik Ministerial meeting is the third Summary of Progress and Recommendations report from the EGBCM, which provides an overview of the progress by Arctic States and Observers in reducing emissions of black carbon and methane as well as recommendations for enhanced action. The summary of progress is based on national reports submitted in 2020.

Priority areas for the reduction of black carbon identified in the 2019 report were diesel-powered mobile sources, oil and gas production, residential combustion, agriculture and animal husbandry, and management of wildfires. For methane, priority areas include emissions from the oil and gas sector, solid waste disposal, and agriculture and animal husbandry. The EG concluded that the six priority areas are still relevant in 2021. Some changes have been made on the recommendations with the aim of making them clearer. To highlight and expand education and outreach efforts in relation to emissions from residential combustion, a separate recommendation was introduced on raising awareness of the emissions impact of combustion practices amongst the general public.

The Arctic States have collectively reduced their black carbon emissions by 20% in 2018, compared to the 2013 baselines, and are projected to achieve a 32% decrease by 2025. Therefore, nationally reported emissions projections indicate that Arctic States are on track to achieve the aspirational collective goal to reduce black carbon emissions by 25-33% of 2013 levels by 2025.

As for methane, according to the nationally reported data, collective emissions from Arctic States have increased by 2% from 2013 to 2018, and are projected to increase by 8% by 2025. Therefore, Arctic States are currently not on track to achieve the common vision for enhanced action to significantly reduce overall methane emissions, as laid out in the Framework.

Many of the actions to reduce emissions of black carbon and methane will take effect only gradually. Implementing the recommendations as appropriate according to national circumstances can reduce emissions and, as a result, lead to climate, health and air quality benefits. Further improving reporting by all States and Observer states of emissions and actions to curb emissions remains a priority.

### Key deliverable

*Expert Group on Black Carbon and Methane, Summary of Progress and Recommendations 2021.*

## EGBCM WORK PLAN 2021-2023

The *Framework for Action on Enhanced Black Carbon and Methane Emissions Reductions* lays out the ongoing responsibilities of the EGBCM, and the work plan for 2021-2023 will broadly follow the 2-year cycle defined in that Framework.

The Russian Federation will chair the EGBCM following the Icelandic Arctic Council Chairmanship.

### Summary of work plans for 2021-2023 with tentative deliverables

One of the main inputs for the work are the biennial national reports on black carbon and methane which Arctic States have committed to submit. They will be asked to do so by late 2021/early 2022. Observers are also encouraged to submit biennial national reports by then.

The fourth edition of the Summary of Progress and Recommendations will be delivered to the 2023 Ministerial meeting.

**Rationale and overall objectives:** As stated in its Framework, the objective of this Expert Group is to periodically assess progress of the implementation of the Arctic Council's Framework for Action on Black Carbon and Methane, and to inform policy makers from Arctic States and from participating Arctic Council Observer States. This includes preparing, once every two-years cycle of the Arctic Council chairmanship, a high level "Summary of Progress and Recommendations" report, with appropriate conclusions and recommendations, for presentation to Arctic Council Ministers at the biennial ministerial meeting on collective progress by Arctic States, and participating Arctic Council Observer States, where possible, in achieving the common vision and commitments outlined in the

Framework. The sharing of national reports and policies for actions to reduce emissions; the measuring progress are fundamental for this work.

**Main activities:** The activities of the EGBCM will be to report on progress in the priority areas identified in the 2017, 2019 & 2021 reports, namely:

1. Mobile and stationary diesel-powered sources;
2. Oil and gas sector;
3. Residential combustion;
4. Solid waste disposal;
5. Agriculture and animal husbandry; and,
6. Management of wildfires.

In addition, technical development will be undertaken with the aim of improving access to and reliability of emission data and projections.

The work will be organized around the priority areas with designated experts taking the lead in providing sections for the report. Priority area leaders will be identified at the autumn 2021 meeting of the EGBCM.

The EGBCM's work builds on and is complementary to AMAP's scientific assessments of the role and impacts of black carbon and methane. In addition, the EGBCM's work maintains links with ACAP's practical action to reduce emissions of SLCPs. Close communication will also be maintained with relevant work by PAME and the EPPR. The EGBCM will also follow the development of relevant activities in in other international fora.

## TIMELINE AND BUDGET, INCLUDING START DATE, MEETING SCHEDULE AND END DATE

The EGBCM operates through contributions in-kind from the Arctic States and Observer States. There is no dedicated budget for the EGBCM at the level of the Arctic Council.

A tentative meeting schedule is as follows:

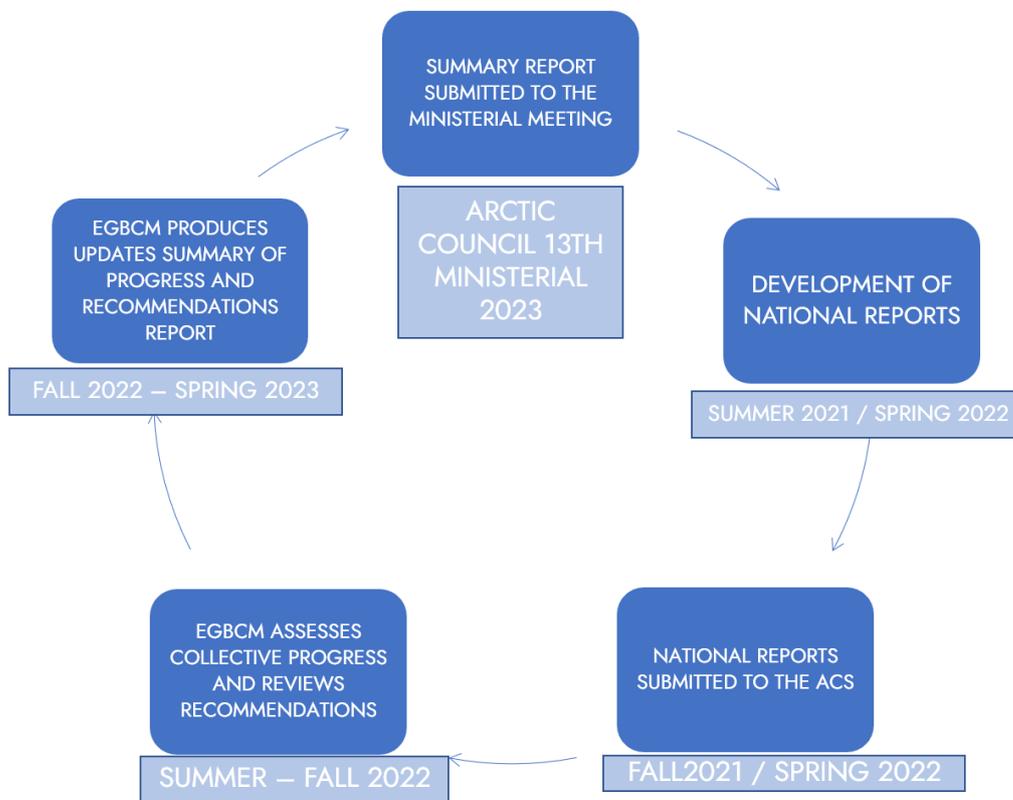
**October 2021:** Meeting under the new Russian chair: plans for the work on evaluating progress and improving projections, including discussion on how to best deliver the report, and streamline deadlines. Considering how to complement the work of the Arctic Council Working Groups; Considering relevant results of work in other fora such as the OECD and the EU as appropriate.

**Late 2021/early 2022:** Arctic States and Observers are requested to submit Biennial National reports on black carbon and methane to the Arctic Council Secretariat.

**September 2022:** First draft of the Summary of Progress and Recommendations 2023. Updating of emission data, documentation of policy action.

**January 2023:** Finalizing the Summary of Progress and Recommendations 2023.

### EGBCM BIENNIAL WORK SCHEDULE



### ADMINISTRATION

The Chair of the EGBCM will be proposed by the Arctic Council Chair and confirmed by the SAOs. Support for the work is provided by the ACS.

## PART III | MEANINGFUL ENGAGEMENT WITH ARCTIC COUNCIL OBSERVERS

final draft

## PRIORITY: *A STRONGER ARCTIC COUNCIL*

One of Iceland's contributions to *A Stronger Arctic Council* – a Chairmanship priority of the last two years – has been finding new and effective ways to enhance meaningful engagement with the Observers States and Organizations. Despite the challenges posed by the Covid-19 outbreak in March 2020, particularly travel restrictions and organizing Arctic Council meetings strictly on virtual platforms, Iceland has successfully managed the circumstances and stayed the course on its commitment towards the Observers.

### Breakfast meetings

The Chairmanship organized three informal “breakfast meetings” between the SAO Chair and the Observers on the margins of the SAO plenary meetings. The first one was organized as an in-person meeting in Hveragerði in November 2019. The other two were organized on a virtual platform in November 2020 and March 2021 as a result of the pandemic. The breakfast meetings provided key opportunities for the SAO Chair to detail Iceland's Arctic Council priorities and update Observers on the overall progress of the Chairmanship and the Council's activities. The meetings also represented good opportunities for the Observers to take the floor to share information on their Arctic Council related activities and ask questions on various issues.

### Working Group – Observer session

At the first SAO plenary meeting of the Icelandic Chairmanship held in Hveragerði in November 2019, a Working Group (WG) – Observer sessions was organized to discuss Iceland's thematic priority on *People and Communities of the Arctic*. Led by the Chair of SDWG, the session was attended by the six WGs and 35 Observer participants from 24 delegations attending the SAO meeting. The session provided an opportunity for Observers to share with the WGs various projects in which they had most interest in and would like to learn more about for future collaborations. Overall appreciation was expressed for Iceland's first initiative to enhance meaningful engagement with the Observers. Delegates expressed their appreciation with the session as they provided valuable information that HoDs can convey to relevant stakeholders and scientists in non-Arctic States and Organizations. The informal setting was also appreciated as it provided a good working environment for informative and constructive discussions.

### Observer contributions to the SAO Marine Mechanism

The SAO Chair invited the Observers to contribute to all six thematic sessions, as well as the kick-off and concluding wrap-up plenaries, of the [SAO Marine Mechanism \(SMM\) virtual series](#) organized in the fall of 2020. Initially planned to be held in person during the March 2020 SAO plenary meeting, which was postponed due to the pandemic, the SMM was organized online over a period of several weeks between 29 September and 29 October. The SMM was held with enhanced Observer participation, thus contributing to the Icelandic Chairmanship's objective to strengthen the Arctic Council. It covered four thematic areas: Arctic Marine Strategic Plan; Sustainable Arctic Shipping; Regional Coordination of Marine Issues; and, Ecosystem-based Management. Several Observers were invited to provide expert presentations on the series' panels, alongside Arctic States, PPs, and WG colleagues. At the kick-off session, a keynote presentation on Setting the Scene was offered by the

HoD of WWF's Arctic Programme. All six sessions featured speakers from the following Observer States and Organizations: Republic of Korea; United Kingdom; United Nations Environment Programme; Japan; International Council for the Exploration of the Sea (ICES); and, European Commission.

### Observer review follow-up meetings

In January 2021, the Chairmanship initiated and conducted, with support from the ACS, and participation from Arctic Council States and Permanent Participants, virtual follow-up meetings with all 19 Observers of the *Fairbanks Group* under review. According to the Arctic Council Rules of Procedures (RoP) (Annex 2), Observers under review are requested to provide brief written reports that summarize their contributions to Arctic Council activities over the previous two years, particularly with the PPs and subsidiary bodies. The Chairmanship established the informal meetings to enhance Observer engagement by creating an informal channel of communication to share feedback on the reports, seek further clarification if needed and acknowledge Observer contributions to the work of the Arctic Council as well as strengthen the review process. The short meetings also provided an opportunity to strengthen the review procedures and cooperation with the Observers. The Observer review reports as well as the Observer regular reports, prepared every two years by the Observers that are not under review during a Chairmanship, are archived on the Arctic Council Open Access Repository.

### Observer engagement at SAO meetings

The Chairmanship has periodically invited Observer speakers to engage with the Arctic Council during SAO plenary meetings. At the Hveragerði meeting in November 2019, two representatives from the International Arctic Science Committee (IASC) provided an update on the next edition of the Arctic Science Summit Week (ASSW) scheduled for 27 March to 2 April 2020 in Akureyri, back-to-back with the second SAO plenary meeting of the Chairmanship. Poland's Head of Delegation (HoD) reported on the 6<sup>th</sup> Warsaw Format Meeting of Observer States that took place in September 2019, with participation from the Chairmanship, ACS and IPS. HoDs of The Netherlands, UN Environment Program, and WWF Arctic-Programme were invited to provide perspectives from the three Observer subgroups of the Arctic Council who took part in the special session on WG-Observer engagement on *People and Communities of the Arctic* – a priority field of the Chairmanship. Finally, based on established Arctic Council practice, the SAO Chair invited the HoD of the International Maritime Organization (IMO) to briefly address delegates as the new Observer of the Arctic Council, admitted earlier that year at the Rovaniemi Ministerial meeting of the Finnish Chairmanship in May 2019.

At the second plenary meeting of the Chairmanship, postponed and held online in November 2020 due to the Covid-19 pandemic, the SAO Chair invited the Project Support Instrument (PSI) Facility Manager, managed by the Observer Organization NEFCO, to update delegates on progress regarding project funding for the Council's subsidiary bodies. He also invited a representative from the University of the Arctic to discuss the next UArctic Congress planned for May 2021.

At the third and final SAO plenary meeting of the Chairmanship, held online in March 2021 due to ongoing travel restrictions caused by the pandemic, the SAO Chair invited Germany to brief delegates on the Multidisciplinary drifting Observatory for the Study of the Arctic Climate (MOSAiC), a

historic international expedition in the Arctic Ocean, which completed its work in 2020 on the German vessel *Polarstern*.

### Observer online event on Arctic Governance

Inspired by the positive experience of the SMM virtual series in the fall of 2020, and in an effort to enhance engagement with Arctic Council Observers, the Chairmanship organized an online Observer event on 21 April to discuss the topic of Arctic Governance. Governance in the Arctic is predominantly the responsibility of the Arctic States – although many of the challenges the region is faced with are global in nature, such as climate change and plastic pollution. Addressing these issues calls for collaboration beyond that of the Arctic States. The Chair of the Arctic Council, Iceland’s Minister for Foreign Affairs Guðlaugur Þór Þórðarson, provided the Keynote opening remarks. A panel discussion on how the Council can further engage the Observers in its work followed the Ministers’ presentation. The panel’s invited speakers featured representatives from the SAOs, PPs and all three Observer categories (States, Governmental Organizations and NGOs). Over 130 delegates from the Arctic Council family registered to the virtual event, which was moderated by Halla Hrund Logadóttir, Director of the Arctic Initiative at the Harvard Kennedy School’s Belfer Center. A summary can be found on the Arctic Council’s Open Access Repository.

### Observer engagement to the Reykjavik Ministerial meeting

Organizing the 12<sup>th</sup> Ministerial meeting of the Arctic Council during the pandemic represented many challenges. To ensure a safe and secure environment and minimize any risks associated with in-person gatherings, the Chairmanship decided to organize the Ministerial in a reduced format, where only Ministers and HoDs of the PPs, accompanied by small delegations, were invited to attend in Reykjavik. The Observer States and Organizations were invited to join through an online platform, which offered an additional opportunity to strengthen meaningful engagement with Observers. To that end, the Chairmanship invited Observers to contribute to the meeting by submitting short video presentations of 2-3 minutes, and/or written statements, highlighting their contributions to the work of the Arctic Council, featured on the online platform of the Ministerial meeting. The pre-recorded messages and written statements by Observers were posted on the platform and are archived on the Arctic Council’s Open Access Repository.

## PART IV | ARCTIC COUNCIL SECRETARIAT

final draft

# ACS work plan and budgets for 2022-2023

## INTRODUCTION

This biennial work plan of the Arctic Council Secretariat (ACS) for the calendar years 2022 and 2023 is the fifth full biennial work plan for the ACS. It covers the main part of the Russian Chairmanship of the Arctic Council, which extends from May 2021 to May 2023, and the beginning of the Chairmanship of Norway (May to December in 2023).

### Arctic Council Secretariat

The ACS was established on 21 January 2013 to strengthen the administrative capacity of the Arctic Council, including providing continuity, keeping the institutional memory and managing internal and external communications. The Secretariat's operations began on 1 June 2013 in Tromsø, Norway, and its operations were reviewed in accordance with the ACS Terms of Reference in 2019.

In their report submitted to Senior Arctic Officials (SAOs) and Permanent Participants (PPs) in February 2020, the independent reviewers of the Icelandic National Audit Office (INAO) concluded that the ACS has, since its inception, operated efficiently and effectively in support of the Arctic Council and is considered to have successfully met the objectives underlying its establishment. The ACS has worked with the Icelandic Chairmanship, the host country, Norway, as well as the other Arctic States to implement the recommendations aimed at further improving the efficiency and effectiveness of the ACS. Work on the recommendations will continue into this work plan period as necessary.

### ACS Work Plan 2022-2023

The 2022-2023 work plan builds upon the ACS Terms of Reference (revised in November 2020) and the Arctic Council Communications Strategy (revised in November 2020).

As stated in the review, the ACS routines and practices are well established, and the 2022- 2023 work plan to a large extent reflects a continuation of these. Based on the experience from the last four Chairmanships, the work plan also considers requests for additional support that typically occur in the Arctic Council as well as requests from the incoming Chairmanships. These new tasks are of course always subject to the availability of the necessary resources.

The ACS can draw upon its experience and knowledge of past and ongoing practices in the Arctic Council to accomplish the tasks listed in this work plan, and thereover to advise the Chairmanship and other Arctic States as appropriate and as needed.

The ACS 2022-2023 work plan includes the following key areas of support, which will be described in more detail in the subsequent sections:

- Administrating and coordinating Arctic Council activities, including meeting support, reporting, correspondence, archiving and networking;
- Providing secretariat functions for the Council's Working Groups Arctic Contaminants Action Program (ACAP) and Emergency Prevention Preparedness and Response (EPPR), the Expert Group on Black Carbon and Methane (EGBCM) and support for other subsidiary bodies;
- Managing the overall internal and external communications of the Arctic Council; and,
- Leading the administrative functions at the ACS, including human resources, information technology and security, and budgeting.

The ACS 2022-2023 work plan also includes the dedicated work plan of the Indigenous Peoples' Secretariat (IPS), which is housed by the ACS, as well as the budgets for the ACS and IPS.

## ADMINISTRATION AND COORDINATION OF ARCTIC COUNCIL ACTIVITIES

The overarching goal of the ACS is to continue to offer efficient, reliable and relevant support to the Chairmanship of the Arctic Council, Arctic States, PPs, subsidiary bodies and Observers. For the period 2022-2023, the ACS will provide secretariat support for the Arctic Council and, in particular, for the Chairmanships of the Russian Federation and Norway, in accordance with the ACS Terms of Reference and as further detailed in this work plan.

ACS responsibilities will be undertaken as appropriate in cooperation with, and under the direction of, the Chair of the Senior Arctic Officials. Within its core functions, the ACS will provide administrative and coordination support to the Arctic Council and the Chairmanship in the following areas:

- Preparing and coordinating SAO, Ministerial and other meetings;
- Reporting and ensuring the management of regular correspondence;
- Managing meeting and other documents, and archiving as appropriate;
- Coordinating relationships with Observers and other external bodies;
- Facilitating the Chairmanship transition process; and,
- Assisting in other general tasks.

## Preparing and coordinating SAO, Ministerial and other meetings

Over the work period 2022 to 2023, the ACS will work on the following tasks in relation to executive and plenary SAO meetings and the 2023 Ministerial meeting:

- Take part in the planning and preparation stages of the SAO plenary and executive meetings and Ministerial meetings by assisting the Chairmanship to draft, circulate, revise, edit and publish agendas, reports and other meeting documents through the SharePoint platform;
- Support the Chairmanship in monitoring, identifying and suggesting relevant and potential content for Arctic Council meetings and, as needed, assisting in providing institutional and historical knowledge on the Council's procedures and activities to ensure operational effectiveness and continuity. This includes conducting background research for the Chairmanship and drafting, as requested and as resources allow, background documents, annotated meeting agendas and Chair's annotations;
- Provide and coordinate technical support for logistical and practical planning and preparations for meetings including, inter alia, registration of participants for various virtual and in-person meetings, as well as managing virtual meeting platforms for online events;
- Attend meetings, take notes from the discussions, and prepare post-meeting reports for the Chairmanship's consideration. Once approved, the reports are archived on the SharePoint platform and, when appropriate, published on the Arctic Council's online Open Access Repository (OAR); and,
- Ensure that relevant documentation from meetings and Chairmanship activities is properly archived for future reference in their appropriate SharePoint folders, as well as on the OAR.

When instructed by the Chairmanship, the ACS will offer similar secretariat support as requested, as appropriate, and as resources allow, for other meetings related to, for example, the work of the Arctic Council's subsidiary bodies; the SAO Marine Mechanism (SMM); meetings with external bodies organized as part of a Memorandum of Understanding (MoU) or other collaborative measure, such as cooperation with the Arctic Economic Council; and any other potential meetings on the political and/or expert level.

## Drafting and managing reports and regular correspondence

The ACS is responsible for preparing and submitting reports, internal distribution of information for the Chairmanship and drafting and managing regular correspondences for the Chairmanship, in particular communications from the Chair of the Senior Arctic Officials. This includes the following tasks.

In relation to regular reporting and reviewing:

- Coordinate, collect, consolidate and draft input for reports and other documents from SAOs, PPs, Working Groups, Task Forces, Expert Groups, other Arctic Council subsidiary bodies and accredited Observers;
- Coordinate and facilitate the process of compiling the 2023 SAO Report to Ministers during the final year of the Russian Chairmanship. This includes editing the draft document and publishing the final version of the approved report on the OAR following the Ministerial meeting; and,
- Ensure the distribution of reports and other documents as needed to SAOs, PPs, Working Groups, Task Forces, Expert Groups, other Arctic Council subsidiary bodies and Observers; and archiving as appropriate.

In relation to regular correspondence:

- Manage the Arctic Council Chair email account and assist the SAO Chair in daily correspondence. This includes receiving communications from internal and external bodies (e.g., letters, invitations, and other correspondence to the Arctic Council) and distributing received material as appropriate; drafting responses for the SAO Chair's consideration; coordinating with Arctic States, PPs, Working Groups, Task Forces, and others as appropriate;
- Circulate emails as appropriate on behalf of SAOs and/or PPs to relevant recipients via the ACS email account; and,
- Maintain and update the SuperOffice database of points-of-contact and distribution lists on a regular basis. Updated lists will be made available to the Arctic Council subsidiary bodies upon request.

## Coordinating relationships and internal communications with subsidiary bodies, Observers and other external actors

The ACS is responsible for coordinating relationships with various actors inside and outside the Arctic Council; in respect to these various actors, concrete tasks include:

### SUBSIDIARY BODIES

- Facilitate regular communication/meetings between the Chairmanship and the WGs, and other subsidiary bodies, to align work plans and deliverables with Chairmanship priorities, ongoing and emerging issues;
- Maintain regular contact with the Working Groups and other subsidiary bodies to coordinate internal and external Arctic Council communications, including matters related to SAO meetings, Ministerial meetings or other meetings;

- Provide a regularly updated and comprehensive overview of Arctic Council projects and initiatives via the “Amarok” Arctic Council tracking tool, which is designed to help with coordination and tracking of the Arctic Council’s work, as well as with public outreach;
- Work to identify, with assistance from the Arctic States, PPs and subsidiary bodies, opportunities to schedule subsidiary body meetings back-to-back to avoid meeting overlaps and to facilitate participation; and,
- Ensure coordination and follow-up between the Chairmanship, SAOs, PPs and Working Groups on matters related to proposed or established projects for the Arctic Council’s Record of Observer Contributions (ROC);

## OBSERVERS

- Steer the continuous Observer review process. This includes assisting the Chairmanship in implementing and finalizing the biennial review of Observers, and overseeing the biennial Observer regular reporting process, both taking place during the second year of the Russian Chairmanship;
- Ensure an accessible open channel of communication between the Arctic Council and the Observers;
- Facilitate access to information about Observer activities, and provide general support to Observers in accordance with the Observer manual, including entities applying for Observer status; and,
- Assist the Chairmanship in organizing other specific activities with Observers, including special sessions during SAO meetings;

## EXTERNAL BODIES

- Coordinate and manage relations with external bodies in cooperation with, and on behalf of the Chairmanship; and,
- Ensure that any approved procedure is followed-up on if and when relationships with external bodies are formalized through e.g., MoU and/or ROC.

## Facilitating the Chairmanship transition process

During the final year of the Russian Chairmanship, the ACS will work with the Russian Federation and Norway to plan and prepare for a smooth transition. In this period, the ACS will facilitate communication between the current and the incoming Chairmanships, as well as establish and coordinate a dialogue between its staff and the Norwegian Chairmanship team in the lead up to the Norwegian Chairmanship (2023-2025).

## Assisting in other general tasks

Overall, the ACS will support the Chairmanship in its working processes, assist on matters of Arctic Council procedures and keep track of formal deadlines of the Arctic Council as appropriate. In addition, the ACS will, as requested by the Chairmanship:

- Assist and facilitate all Arctic Council work related to strategic thinking and planning, as appropriate and if instructed to do so;
- Gather information about earlier Arctic Council work, decisions or projects, and prepare background material for SAOs' consideration;
- Endeavor to provide a comprehensive overview of Arctic Council activities, including specific reporting on particular elements of interest, as directed by the Chairmanship or by SAOs;
- Report on specific aspects of the Arctic Council's work, and assist with monitoring cross-cutting initiatives, as directed by the Chairmanship or by SAOs; and,
- Undertake other tasks as requested by the Chairmanship or the SAOs, subject to the availability of necessary resources.

## SECRETARIAT FUNCTIONS FOR ACAP, EPPR AND SUPPORT TO OTHER SUBSIDIARY BODIES

### General secretariat functions and support

The ACS acts as secretariat for ACAP and EPPR Working Groups. The main goals for the ACAP and EPPR executive secretaries for 2022-2023 will be to ensure the functionality and continuity of the secretariat functions, while making the work of EPPR and ACAP as effective as possible. The work will continue to be carried out in close cooperation with the Chairs of ACAP and EPPR, and includes, but is not limited to, the following tasks:

- Organizing, attending and coordinating ACAP/EPPR meetings, workshops, webinars and other events and processes, ensuring timely information sharing and reporting;
- Attending and supporting the Chair at SAO and Ministerial meetings, other Arctic Council meetings and relevant external events;
- Developing efficient working routines to ensure continuity and institutional practices to further strengthen the secretariat and contributing to good archiving practices;
- Providing guidance regarding procedures, guidelines and other Arctic Council and Working Group framework documents and practices;
- Facilitating good internal and external communications in a timely manner;

- Ensuring – in close cooperation with the ACAP and EPPR Chairs – that the approved work plans are implemented;
- Working closely with the Arctic Council Working Groups and other subsidiary bodies to ensure cross-cutting and complementary activities and where appropriate, with different global processes and fora;
- Providing technical assistance and managing the ACAP/EPPR SharePoint and official contact lists; and,
- Facilitating and/ or providing assistance related to translation and interpretation services, as necessary and as resources allow.

## ACAP

The ACAP executive secretary (ES) - in coordination with the ACAP Chair, Vice-Chair and ACAP Expert Group Chairs – will carry out diverse day-to-day work facilitating the Working Group's smooth functioning. Apart from providing administrative support comprised of the above-mentioned tasks, but not limited to them, the ES will act as a liaison and point of contact for ACAP's internal and external communication as needed.

In cooperation with the ACS communications team, the ES will manage the ACAP website, ensuring it has relevant content, and assist ACAP experts in creating new content on a regular basis. With ACAP's increased focus on communication of the results of its projects, and awareness raising on different pollution issues at the community level, the ES is expected to work with ACAP experts on the development of different outreach events and materials for various communication channels, including social media. The ES will support the preparation and coordination of ACAP's awareness-raising workshops and webinars on different pollution issues, when needed.

## EPPR

The EPPR ES serves as the point of contact for administrative and communications related work of EPPR and facilitates, coordinates and develops internal processes in collaboration with the Chair, Vice-Chair(s) and Expert Group Chairs. The ES may assist project leads in administrative project tasks, resources allowing.

The communications-related work the ES undertakes includes maintaining and developing the EPPR website, creating content for media and outreach channels in use with relevant partners, ensuring timely and appropriate external communications and managing media relations in collaboration with the Chair and the ACS communications team. The focus of the communications work will be on strengthening project-related outreach, developing good practices in communications management and reaching target audiences.

## Support to EGBCM and other subsidiary bodies

The ACS will continue to provide administrative and secretariat support to the Arctic Council EGBCM as outlined in the Framework for Action on Enhanced Black Carbon and Methane Emissions reductions (2015) (<https://oaarchive.arctic-council.org/handle/11374/610>). In addition, the ACS will support Task Forces and other subsidiary bodies or initiatives, as requested and as resources permit. Such support may, at the discretion of the ACS director and relevant Chair(s), include the duties listed above as general secretariat functions and support.

## COMMUNICATIONS ACTIVITIES

The ACS plays the key role in establishing the framework for the Council's communications and in implementing the Arctic Council Communications Strategy (<https://oaarchive.arctic-council.org/handle/11374/2510>). Under the direction of and in close cooperation with the Chairmanship, the ACS will coordinate overall internal and external communications under the Arctic Council brand. This includes the following tasks:

### Internal communication, coordination, and support

To ensure good internal communications within the Arctic Council, as well as to coordinate and support communications and outreach efforts of various entities of the Council, the ACS will – as far as resources allow:

- Facilitate continuous information-sharing within the Arctic Council network, including on upcoming events and relevant media work;
- Engage the Arctic Council's Communications and Outreach Group whenever relevant, and report media mentions, website and social media statistics to the group quarterly;
- Provide design, layout and copy-editing assistance to ensure a coherent style across the Arctic Council, and further develop the branding of the Arctic Council, including its subsidiary bodies, to strengthen the Council's visual identity;
- In close cooperation with the Chairmanship, explore ways to expand the resources available for communications work conducted by the ACS; and,
- Manage the biennial review of the Arctic Council Communications Strategy, which is scheduled to take place at the fall SAO meeting in 2022.

## Website and archive management

The ACS hosts the Arctic Council, ACAP, EPPR and Sustainable Development Working Group websites as well as the Arctic Council's document library, the OAR. To ensure their maximum user-friendliness, compatibility and stability, the ACS will regularly employ best practices to improve site functionality, usability and search engine optimization. In addition, the ACS will continue to improve the bi-lingual capacity of ACS-hosted websites as requested and facilitate translation of website texts into Russian language as resources allow.

## Information materials and content development

The ACS works in close collaboration with the Chairmanship, the States, PPs, the IPS, Working Groups and other subsidiary bodies to develop, manage and disseminate materials that inform and engage the target audiences identified in the Arctic Council Communications Strategy (2020). This includes – as appropriate and resources permit:

- Producing diverse digital content to establish the Arctic Council website as reliable knowledge base and main entry point for Arctic issues addressed by the Arctic Council and its subsidiary bodies;
- Producing a biennial printed and online Arctic Council magazine;
- Identifying additional channels and means to facilitate outreach to audiences with low connectivity;
- Translating Arctic Council communications materials, or other documents into Russian language;
- Leveraging the UN Decade of Indigenous languages and explore possibilities to translate outreach materials into selected Arctic Indigenous languages; and,
- Expand the production, purchase and use of multimedia content, such as photos, videos and infographics, as well as populating the Council's photo and video library.

## Social media

The ACS has built a strong presence of the Arctic Council on Facebook, Twitter and Instagram. To maintain, manage and further expand these efforts, the ACS will develop diverse content for these channels and search for opportunities to interact with online audiences. Wherever possible, the ACS will coordinate with other accounts within the Arctic Council network to increase distribution of information. Further, the ACS will explore options to leverage paid campaigns to increase visibility of Arctic Council content.

## Engaging with media and external partners

The ACS is responsible for interacting and managing relationships with members of the media and other external partners. In close cooperation with the Chairmanship and – where relevant – other entities of the Council, the ACS will:

- Serve as a first point-of-contact for inquiries from media and others, and vet and forward these to designated spokespersons within the Arctic Council network to facilitate timely communications;
- Develop relevant materials to help media representatives report timely and accurately;
- Seek out communications opportunities and conduct targeted outreach to media representatives to place topics, experts and bylined articles;
- Regularly inform media, stakeholders and the interested public about ongoing activities of the Arctic Council and its subsidiary bodies through a periodic newsletter;
- Identify suitable external cooperation partners to engage in joint outreach activities on Arctic issues, where interests and focus areas align; and,
- Prepare Arctic Council spokespersons for media engagements by providing speaking points and/ or media training as requested and as appropriate.

## Representations of the Arctic Council

The ACS both welcomes guests and supports the Council's attendance at conferences and events. This includes the following tasks:

- Provide ACS visitors with basic briefings on the current priorities of the Arctic Council, its structure and function, its history, and the work of the ACS in particular;
- Support the Chairmanship in hosting side events, placing Arctic Council representatives as panel and keynote speakers, distributing information materials and making person-to-person connections with individuals of the target audiences;
- Prepare exhibition stands and materials as needed;
- In close cooperation with the Chairmanship, support engagement with local communities during Council and subsidiary body meetings; and,
- Create products appropriate for distribution to participants and the public at meetings, conferences and other events.

## ADMINISTRATION

The ACS will continue to develop administrative functions in order to ensure that the ACS is well equipped in terms of staff, solutions and equipment and to serve the Arctic Council in the best way possible within the frames of the approved budgets.

### Human resources

#### *STAFF*

The ACS is a small secretariat and in principle all changes to the composition of staff has a potential impact on the secretariat both in terms of efficiency and the overall work environment. For this work plan period, two first term contracts expire in 2022 and three first term contracts in 2023. It will be important for the ACS to establish as early as possible whether or not these contracts will be extended for a second period and to plan possible recruitment processes accordingly.

As of March 2021, the ACS has 14 staff members, including two IPS staff members and one secondment from Russia. The secondment agreement with the Russian Federation runs until 31 July 2023. One position as Project Officer is a temporary contract expiring on 2 August 2021. The ACS has been notified that the funding for the position as “Russian language advisor” (currently vacant) will not be continued. Unless new funding is made available, this position will not be filled in this work plan period. In practical terms this means that the ACS capacity for translation services will be very limited.

The workload for the ACS staff has been steadily increasing over the last few years. There are ever more meetings at all levels from expert to Ministerial (also digital meetings require secretariat support), processes (such as SMM) and arrangements such as conferences, MoUs and “Arctic Council coordinators” that are in need of secretariat support. The total number of staff at the ACS has not increased at the same pace as the workload, so the ACS is currently stretching the capacity of some key staff members and there is a risk of wearing people down. In order to solve this challenge and to increase the overall capacity at the ACS the intention is to recruit a new staff member at the advisor level. In addition, the ACS is also proposing to establish an annual internship program to provide general administrative assistance. Because of a shift in priorities and how the ACS is reshaping to meet the future, the financial implications of these recruitments are modest as demonstrated in the draft budgets for 2022 and 2023.

In the years up to 2017, the ACS and the previous ACS director benefitted from having a deputy director at the ACS. Reinstalling the role of deputy director would mean a significant strengthening of the ACS, making it more robust and less vulnerable to changes in personnel. It is a long-term goal for the ACS in line with the recommendations in the INAO review report, to find ways to re-introduce the position of deputy director.

## *HUMAN RESOURCE MANAGEMENT TOOL*

In the work plan for 2020-2021, the ACS identified a need for a human resource management (HRM) document, a compilation of relevant internal HR practices which would serve as a comprehensive overview of different administrative procedures. The ACS elaborated further on that idea and concluded that a technological solution would be more practical in terms of applicability. For instance, such a system could make administrative processes more streamlined and efficient. Given the arrangement with ACS staff on temporary four-year contracts, such a system would also leave administrative processes less vulnerable in the transition phase from one administration to the next and also offer employees a better chance to keep track of relevant information via an app.

Depending on the progress made in 2021, the ACS will continue to work with an HRM system in this work plan period. There are multiple HRM solutions readily available and it is important to settle for a solution which is scaled to the secretariat's needs.

Information technology, security and archives

## *INFORMATION TECHNOLOGY*

While the overarching goal of the ACS regarding IT-services remains the same as before: "To strengthen and develop IT-services and capacity in order to provide the best possible service for the Arctic Council." The Covid-19 pandemic has shown that there is a need to rethink, not the goal itself, but how to approach it.

A stronger online presence and more graphic-intense demands requires updating the secretariat's existing hardware solutions to hardware that can better handle the demands of online meetings, higher graphical demands and work-from-home days. While making services accessible and secure for people on the move, travelling or from remote locations remains a focus, the future will to a larger degree demand hybrid-meeting solutions. Thus, the technological threshold for online meeting participation needs to be kept low.

As such, the future focus of the ACS regarding IT-services will be:

- Conduct hardware upgrades;
- Ensure operability and security regarding the online meeting platforms that the Arctic Council at any time prefers to use, external systems (SuperOffice, SharePoint), and print systems;
- Prepare an internal security advisory;
- Balancing accessibility and security; and,
- Provide user support internally and regarding meeting participation when relevant.

## ARCHIVES

Creating, managing and preserving reliable archives are central responsibilities of the ACS. The ACS will maintain and further develop Arctic Council archives and routines for archiving, in accordance with the Integrated Records Management Tool (IRMT) and the Archiving Guidelines and Policy for Records Management for the Arctic Council (<https://oaarchive.arctic-council.org/handle/11374/2457>). The ACS will continue to maintain its different repositories and to make new and historical content publicly available on the OAR.

## Budgets for 2022 and 2023

In accordance with the Arctic Council Secretariat Terms of Reference article 7.1, the ACS has prepared budgets for 2022 and 2023. These budgets will cover parts of the Russian Chairmanship and parts of the Norwegian Chairmanship.

As with previous budgets, there is some uncertainty in particular concerning future staffing and travel costs. For instance, it is difficult to predict the exact number of recruitments needed and where staff will be recruited from (relocation costs). It is also challenging to predict travel costs when destinations and the degree to which the Arctic Council will continue to conduct digital meetings also after the pandemic to a certain extent are unknown. In addition, the experience in 2020 with Covid-19 demonstrated that there is always a potential for unknowns which might affect operational outcome, priorities and the overall financial situation.

As mentioned above, the ACS is planning to make some internal adjustments among positions and to re-introduce the practice of offering one position for an intern from 2022. The overall budget increase compared to the 2021 budget is NOK 665,710 (4,8%).

The draft budget for 2022 is NOK 14,421,593 and the draft budget for 2023 is NOK 14,979,873.

## Biennial work plan, budgets and reporting

The ACS will continue its planning and reporting for future Chairmanships, including:

- Preparing a work plan for the period 2024-2025 for submission to SAOs prior to the 13th Ministerial meeting, expected to take place in the Russian Federation in 2023;
- Preparing a budget for the period 2024-2025 for submission to SAOs and consideration by Ministers at the 13<sup>th</sup> Ministerial meeting, expected to take place in the Russian Federation in 2023; and,
- Reporting on ACS operations and activities at each meeting of SAOs.

# IPS work plan and budgets for 2022-2023

## INTRODUCTION AND IPS PRIORITIES

The Arctic Council Indigenous Peoples' Secretariat (IPS) facilitates active participation and full consultation of the Permanent Participants (PPs) in the Arctic Council's work. The IPS core functions are outlined at the beginning of the respective sections of the work plan and will be accomplished through the implementation of undertakings described in each section.

The IPS is governed by a Board of nine members including one representative from each Permanent Participant, plus one representative from the Arctic Council's current Chairmanship, one representative from the IPS Host country, and one representative from the future Arctic Council Chairmanship. The director of the Arctic Council Secretariat is an ex-officio member. IPS Procedural Guidelines instruct the IPS to work closely with the IPS Chair and the Board and specify various administrative tasks.

The IPS work plan 2022-2023 is developed in consultation with the IPS Board, the six Permanent Participant organizations, and in light of the Russia's Chairmanship program for 2021-2023. The IPS furthers planning and communication between the PPs and Norway leading into Norway's Chairmanship commencing in 2023.

The IPS highlights the following themes reflecting the PPs' joint priorities for 2022-2023:

- Indigenous youth engagement;
- Arctic Indigenous languages; and,
- Arctic Indigenous Peoples' cooperation.

Since the IPS' capacity may vary throughout the year, some work items may only be performed as time and resources permit. Work items that do not include a disclaimer referring to limited resources will be prioritized.

## FACILITATING THE PERMANENT PARTICIPANTS' WORK IN THE ARCTIC COUNCIL

The IPS facilitates the participation of Indigenous Peoples' organizations in the work of the Arctic Council and acts as a common support secretariat unit for all six PPs, primarily in the Council's activities. The IPS assists Indigenous Peoples' in presenting their perspectives in the Council's meetings.

### LOGISTICAL SUPPORT

Assist the PPs with registering for and arranging attendance at Arctic Council events. This includes visas, applications, and seeking travel support and other logistics when requested.

## INSTITUTIONAL SUPPORT

Assist the PPs in preparing and submitting joint declarations and other documents relevant to the work of the Arctic Council as requested; carry out research and analysis of current and future issues as required by the PPs.

## INFORMATION SHARING AND MANAGEMENT

Distribute pertinent information about the Arctic Council and related meetings and activities to the PPs; maintain and further develop IPS archives, ensuring the safe and appropriate storage of important documentation.

## ATTENDANCE OF ARCTIC COUNCIL AND RELATED EVENTS

Attend the Ministerial meetings, SAO meetings, Arctic Council Working Group and subsidiary bodies' meetings, and related international meetings at the request of the PPs or IPS Chair to facilitate PPs participation when time and resources permit.

## INDIGENOUS LEADERSHIP, SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL PROTECTION

### PP'S JOINT PRIORITIES FOR 2022-2023

The IPS aims to support the PPs' participation in the projects and initiatives endorsed by the Russian Chairmanship of the Arctic Council where Indigenous engagement is relevant and when resources permit. Many activities in the Chairmanship program correlate with the PPs' priorities and the IPS will follow the Chairmanship program, timely provide information on events, and facilitate PPs' participation when requested.

#### *Indigenous youth engagement*

Arctic Youth Leaders' Summit, International Youth model of the Arctic Council, Arctic Youth Summit (AYS) on the sidelines of the Arctic Biodiversity Congress, etc. contribute to Indigenous youth involvement.

#### *Arctic Indigenous languages*

Conference on Communications and Digitalization in the Arctic, International Seminar on the Protection and Popularization of Arctic Indigenous Languages, 'Children of the Arctic' project roundtable, and other events in line with the UN Decade of Indigenous Languages contribute to the promotion of Arctic Indigenous languages issues.

#### *Arctic Indigenous cooperation*

Arctic Leaders' Summit, Arctic Cultural Forum, as well as PPs active participation in Arctic Biodiversity Congress, and Environmental Ministers Meeting promote Arctic Indigenous cooperation.

## ENVIRONMENTAL PROTECTION AND SUSTAINABLE DEVELOPMENT

The IPS supports the PPs' actions to maintain and promote sustainable development of the Indigenous Peoples' cultures and environmental protection in the Arctic as time and resources permit.

### *Indigenous Peoples Contamination Action Program (IPCAP)*

Indigenous Peoples Contaminant Action Program (IPCAP) is the unique Indigenous-led Expert Group of the Arctic Council under the auspices of ACAP and is currently chaired by AIA. When time and resources permit, IPS provides secretariat support to the Chair of IPCAP; facilitates drafting project proposals; communicates IPCAP developments to the PPs; and assists the IPCAP Chair with arranging events related to IPCAP.

### *Indigenous events*

Assist the PPs in organizing the 7<sup>th</sup> Arctic Leaders' Summit (ALS), the Arctic Youth Leaders' Summit (AYLS), and other Indigenous events pursuing sustainable development and environmental protection; endeavors PPs collaboration with other Arctic Indigenous Peoples; aids the PPs in arranging their institutional events when requested and when resources permit.

### *Promotion of Indigenous cultures*

Enhance cooperation between the PPs and Arctic States in terms of Indigenous cultures promotion as requested. In cooperation with the PPs, provide opportunities for promoting Indigenous cultures as side events of the Arctic Council meetings when time and resources permit.

## KNOWLEDGE AND INDIGENOUS LANGUAGES

The IPS gathers and disseminates information on and provides and lists sources of different forms of knowledge focusing on traditional knowledge of the Indigenous Peoples.

### *Traditional knowledge resources*

Gather and disseminate information on traditional knowledge of Indigenous Peoples; seek opportunities to develop a collection of the PPs' reports, studies, and publications authored by Indigenous scholars relevant to the Arctic Council themes.

### *Co-production of knowledge*

Support the PPs in facilitating the use of Indigenous Peoples' perspectives, concerns, and knowledge mainly in the work of the Arctic Council but also in relevant international bodies when requested and when the opportunity arises; timely respond to requests from scientific and research community on the inclusion of traditional knowledge and Indigenous expertise.

### *Indigenous languages*

Support PPs revitalizing initiatives and promote Indigenous languages issues alongside the UN International Decade of Indigenous languages 2022-2032 through PPs' projects and activities, including online learning programs, as requested.

### *Capacity-building activities*

The IPS supports the PPs in enhancing their capacity to pursue the Arctic Council objectives and contribute and participate in the Council's work. The IPS aims to further PPs' active participation and full consultation within the Arctic Council.

### *YOUTH ENGAGEMENT AND INTERNSHIP*

Facilitate the work of the Permanent Participants' youth network as well as Indigenous youth engagement; collaboration with CAFF, SDWG and other Arctic Council youth programs; offer internships for Indigenous youth when resources permit; seek sustainable funding to strengthen the internship programs; and seek possibilities for PP secondment to the IPS.

### *TRAINING AND EDUCATION*

Assist in organizing training, courses, seminars and other relevant educational opportunities on the themes important for the PPs as deemed necessary.

### *FUNDRAISING*

Continue to secure support mechanisms that fund PP activities; pursue a long-term fundraising strategy for the IPS; and continue to seek travel support, project funding and in-kind support for the PPs and the IPS.

## COMMUNICATION AMONG THE PERMANENT PARTICIPANTS AND ARCTIC COUNCIL BODIES

The IPS facilitates dialogue and communication among the PPs and between the PPs and Arctic Council and related bodies. The IPS aims to provide opportunities for multilingual communication as far as possible.

## COOPERATION AND COORDINATION AMONG THE PERMANENT PARTICIPANTS

Organize and facilitate PPs caucuses, follow-up meetings and informal consultations between the PPs as requested, when requested and resources permit, assist PPs to develop and maintain a mechanism to exchange information between the PPs.

## LANGUAGE SERVICES

Assist with communication and interpretation between the PPs and their Russian chapters; arrange interpretation and translation into Russian or other languages as required and resources permit; translate IPS Board documents, PPs caucus documents, and requested Arctic Council documents into Russian as resources permit.

## COOPERATION AND COORDINATION WITH THE ARCTIC COUNCIL BODIES

Facilitate communication between the PPs and the Arctic Council Chairmanship; collaborate with the Arctic Council Working Groups' secretariats to enhance PPs' cooperation at the expert level and assist the PPs in reporting on or applying for the Council's projects; focus on collaboration with the Arctic Monitoring and Assessment Programme (AMAP) and the Sustainable Development Working Group (SDWG) on human health issues, as appropriate; support meetings and joint events between the PPs and the Arctic Council subsidiary bodies as requested.

## PUBLIC AWARENESS OF ARCTIC COUNCIL ISSUES

The IPS contributes to raising public awareness of Arctic Council issues through the IPS website, social media channels and other publications and attends international and Arctic-related events when time and resources permit.

## COMMUNICATIONS AND OUTREACH

Develop and regularly update the IPS website and the IPS-branded social media accounts; contribute to the Arctic Council newsletter; facilitate information-sharing and timely responses to questions about PPs and the IPS; assist in conveying media requests; and organize an Arctic Indigenous photo exhibition in the Arctic region or a contest using social media, as resources permit.

## ATTENDANCE OF INTERNATIONAL ARCTIC SCIENCE-RELATED EVENTS

In cooperation with the IPS Chair and the PPs, assist the PPs in the steering committees and other management processes such as the Arctic Science Summit Week/International

Conference on Arctic Research Planning (ICARP), University of the Arctic (UArctic), International Arctic Social Sciences Association (IASSA) Congress, International Arctic Science Committee's (IASC) Arctic Science Summit Week, etc.

## ADMINISTRATIVE FUNCTIONS

The IPS performs activities to operate as an administrative unit within the ACS.

## FUNCTIONS RELATED TO THE IPS BOARD

Arrange Board meetings at least once per year in person, unless circumstances of insuperable force impede physical meetings, and at other times by teleconference or in person as necessary; coordinate the preparation of reports and other documents for review or decision by the IPS Chair or IPS Board; record minutes and decisions at the Board meetings; and coordinate regular reporting and accounting to the Board on IPS activities.

## STAFF RECRUITMENT, ASSESSMENT, DEVELOPMENT, AND WELFARE

Conduct recruitment process as needed; perform annual appraisal conversations with staff members and determine from the results of the appraisal conversations what kind of training would benefit each employee in the performance of his or her duties.

## BIENNIAL WORK PLAN, BUDGET, AND REPORTING

Prepare a biennial work plan and budget for 2024 and 2025 and report on IPS projects and prepare annual reports.

final draft

# ACS budgets for 2022-2023

## ACS BUDGET FOR 2022

EXPENSES	NOK	USD
<b>STAFF</b>		
Salaries and employer fee	Kr 8,301,298	\$ 966,391
Establishment and moving allowance	Kr 300,000	\$ 34,924
Pension	Kr 382,495	\$ 44,528
Training and development	Kr 120,000	\$ 13,970
Insurance	Kr 43,000	\$ 5,006
Recruitment	Kr 150,000	\$ 17,462
Miscellaneous	Kr 250,000	\$ 29,103
<b>Staff</b>	<b>Kr 9,546,793</b>	<b>\$ 1,111,384</b>
<b>DEPRECIATION</b>		
Depreciation	Kr 86,000	\$ 10,012
<b>Depreciation</b>	<b>Kr 86,000</b>	<b>\$ 10,012</b>
<b>RENT</b>		
Rent	Kr 1,450,000	\$ 168,800
<b>Rent</b>	<b>Kr 1,450,000</b>	<b>\$ 168,800</b>
<b>PROFFESIONAL SERVICES</b>		
Auditor	Kr 58,000	\$ 6,752
Accounting and payroll	Kr 320,000	\$ 37,253
IT	Kr 290,000	\$ 33,760
Communications	Kr 649,000	\$ 75,552
AC Internship	Kr 400,000	\$ 46,566
Web and digital media	Kr 70,000	\$ 8,149
Video conference systems	Kr 8,500	\$ 990
Miscellaneous	Kr 50,000	\$ 5,820
<b>Professional services</b>	<b>Kr 1,845,500</b>	<b>\$ 214,842</b>
<b>OVERHEAD/OFFICE</b>		
Computers and hardware	Kr 70,000	\$ 8,149
Mobile phones, purchase and use	Kr 133,000	\$ 15,483
Subscriptions incl. HRM system	Kr 110,000	\$ 12,806
Supplies	Kr 50,000	\$ 5,820
Meetings/representation	Kr 140,000	\$ 16,298
Print	Kr 22,300	\$ 2,596
Freight	Kr 2,500	\$ 291
Fees	Kr 12,000	\$ 1,397
Miscellaneous	Kr 70,000	\$ 8,149
<b>Overhead/office</b>	<b>Kr 609,800</b>	<b>\$ 70,989</b>
<b>TRAVEL</b>		
Travel	Kr 892,500	\$ 103,900
<b>Travel</b>	<b>Kr 892,500</b>	<b>\$ 103,900</b>
<b>FINANCIAL INCOME AND EXPENSES</b>		
Financial income	Kr -10,000	\$ -1,164
Financial expenses	Kr 1,000	\$ 116
<b>Net financial items</b>	<b>Kr -9,000</b>	<b>\$ -1,048</b>
<b>TOTAL COST 2022</b>	<b>Kr 14,421,593</b>	<b>\$ 1,678,879</b>

Exchange rate, 5-year average: 8,59



INCOME		NOK		USD
<b>CONTRIBUTIONS:</b>				
Canada	Kr	1,032,958	\$	120,251
Kingdom of Denmark	Kr	1,032,958	\$	120,251
Finland	Kr	1,032,958	\$	120,251
Iceland	Kr	1,032,958	\$	120,251
Norway	Kr	1,032,958	\$	120,251
Russian Federation	Kr	1,032,958	\$	120,251
Sweden	Kr	1,032,958	\$	120,251
USA	Kr	1,032,958	\$	120,251
<b>Total contributions</b>	<b>Kr</b>	<b>8,263,664</b>	<b>\$</b>	<b>962,010</b>
<b>Host Country Contribution</b>	<b>Kr</b>	<b>6,107,927</b>	<b>\$</b>	<b>711,050</b>
Internal fee (estimate)	Kr	50,002	\$	5,819
<b>TOTAL INCOME</b>	<b>Kr</b>	<b>14,421,593</b>	<b>\$</b>	<b>1,678,879</b>

final draft

## ACS BUDGET FOR 2023

EXPENSES	NOK	USD
<b>STAFF</b>		
Salaries and employer fee	Kr 8,420,423	\$ 980,259
Establishment and moving allowance	Kr 300,000	\$ 34,924
Pension	Kr 388,000	\$ 45,169
Training and development	Kr 120,000	\$ 13,970
Insurance	Kr 44,000	\$ 5,122
Recruitment	Kr 150,000	\$ 17,462
Miscellaneous	Kr 350,000	\$ 40,745
<b>Staff</b>	<b>Kr 9,772,423</b>	<b>\$ 1,137,651</b>
<b>DEPRECIATION</b>		
Depreciation	Kr 75,000	\$ 8,731
<b>Depreciation</b>	<b>Kr 75,000</b>	<b>\$ 8,731</b>
<b>RENT</b>		
Rent	Kr 1,480,000	\$ 172,294
<b>Rent</b>	<b>Kr 1,480,000</b>	<b>\$ 172,294</b>
<b>PROFESSIONAL SERVICES</b>		
Auditor	Kr 59,000	\$ 6,868
Accounting and payroll	Kr 328,000	\$ 38,184
IT	Kr 300,000	\$ 34,924
Communications	Kr 719,000	\$ 83,702
AC Internship	Kr 400,000	\$ 46,566
Web and digital media	Kr 70,000	\$ 8,149
Video conference systems	Kr 8,500	\$ 990
Miscellaneous	Kr 50,000	\$ 5,820
<b>Professional services</b>	<b>Kr 1,934,500</b>	<b>\$ 225,203</b>
<b>OVERHEAD/OFFICE</b>		
Computers and hardware	Kr 100,000	\$ 11,642
Mobile phones, purchase and use	Kr 135,000	\$ 15,716
Subscriptions incl. HRM system	Kr 110,000	\$ 12,806
Supplies	Kr 50,000	\$ 5,820
Meetings/representation	Kr 140,000	\$ 16,298
Print	Kr 22,700	\$ 2,642
Freight	Kr 2,500	\$ 291
Fees	Kr 12,000	\$ 1,397
Miscellaneous	Kr 70,000	\$ 8,149
<b>Overhead/office</b>	<b>Kr 642,200</b>	<b>\$ 74,761</b>
<b>TRAVEL</b>		
Travel	Kr 1,084,750	\$ 126,281
<b>Travel</b>	<b>Kr 1,084,750</b>	<b>\$ 126,281</b>
<b>FINANCIAL INCOME AND EXPENSES</b>		
Financial income	Kr -10,000	\$ -1,164
Financial expenses	Kr 1,000	\$ 116
<b>Net financial items</b>	<b>Kr -9,000</b>	<b>\$ -1,048</b>
<b>TOTAL COST 2023</b>	<b>Kr 14,979,873</b>	<b>\$ 1,743,873</b>

Exchange rate, 5-year average: 8,59



INCOME	NOK		USD	
<b>CONTRIBUTIONS:</b>				
Canada	Kr	1,073,085	\$	124,922
Kingdom of Denmark	Kr	1,073,085	\$	124,922
Finland	Kr	1,073,085	\$	124,922
Iceland	Kr	1,073,085	\$	124,922
Norway	Kr	1,073,085	\$	124,922
Russian Federation	Kr	1,073,085	\$	124,922
Sweden	Kr	1,073,085	\$	124,922
USA	Kr	1,073,085	\$	124,922
<b>Total contributions</b>	Kr	<b>8,584,680</b>	\$	<b>999,381</b>
<b>Host Country Contribution</b>	Kr	<b>6,345,193</b>	\$	<b>738,672</b>
Internal fee (estimate)	Kr	50,000	\$	5,820
<b>TOTAL INCOME</b>	Kr	<b>14,979,873</b>	\$	<b>1,743,873</b>

final draft



# IPS budgets for 2022-2023

## IPS BUDGET FOR 2022

EXPENSES	NOK	USD
<b>STAFF</b>		
Salaries, pensions, employer fee	Kr 1,558,282	\$ 181,407
Recruitment, allowance	Kr 213,418	\$ 24,845
Home travel	Kr 10,000	\$ 1,164
Training, development, insurance	Kr 37,100	\$ 4,319
Miscellaneous	Kr 30,000	\$ 3,492
<b>Staff</b>	<b>Kr 1,848,800</b>	<b>\$ 215,227</b>
<b>Depreciation</b>		
Depreciation	Kr 18,248	\$ 2,124
<b>Depreciation</b>	<b>Kr 18,248</b>	<b>\$ 2,124</b>
<b>RENT</b>		
Rent, Fram 2	Kr 241,000	\$ 28,056
<b>Rent</b>	<b>Kr 241,000</b>	<b>\$ 28,056</b>
<b>PROFESSIONAL SERVICES</b>		
Auditor	Kr 8,000	\$ 931
Accounting and payroll	Kr 70,000	\$ 8,149
IT	Kr 43,210	\$ 5,030
Communications	Kr 70,300	\$ 8,184
Web and digital media	Kr 29,700	\$ 3,458
Video conference system	Kr 1,500	\$ 175
Miscellaneous	Kr 20,000	\$ 2,328
<b>Professional services</b>	<b>Kr 242,710</b>	<b>\$ 28,255</b>
<b>OVERHEAD/OFFICE</b>		
Computers and hardware	Kr 17,600	\$ 2,049
Mobile phones, purchase and use	Kr 39,200	\$ 4,563
Supplies	Kr 8,300	\$ 966
Printers	Kr 3,400	\$ 396
Freight	Kr 2,500	\$ 291
Miscellaneous	Kr 10,000	\$ 1,164
<b>Overhead/office</b>	<b>Kr 81,000</b>	<b>\$ 9,430</b>
<b>GEN.ADM.ISSUES</b>		
Meetings/representation	Kr 55,125	\$ 6,417
Subscriptions	Kr 21,000	\$ 2,445
Fees	Kr 2,000	\$ 233
<b>Gen.adm.issues</b>	<b>Kr 78,125</b>	<b>\$ 9,095</b>
<b>TRAVEL</b>		
Travel	Kr 220,000	\$ 25,611
<b>Travel</b>	<b>Kr 220,000</b>	<b>\$ 25,611</b>
<b>TOTAL COST 2022</b>	<b>Kr 2,729,883</b>	<b>\$ 317,798</b>

Exchange rate: 8,59 (5-year average 2016 - 2020)



## IPS BUDGET FOR 2023

EXPENSES	NOK	USD
<b>STAFF</b>		
Salaries, pensions, employer i	Kr 1,605,030	€ 186,849
Recruitment, allowance	Kr 213,418	€ 24,845
Home travel	Kr 10,000	€ 1,164
Training, development, insur:	Kr 37,842	€ 4,405
Miscellaneous	Kr 30,000	€ 3,492
<b>Staff</b>	<b>Kr 1,896,290</b>	<b>€ 220,756</b>
<b>Depreciation</b>		
Depreciation	Kr 5,198	€ 605
<b>Depreciation</b>	<b>Kr 5,198</b>	<b>€ 605</b>
<b>RENT</b>		
Rent, Fram 2	Kr 253,050	€ 29,459
<b>Rent</b>	<b>Kr 253,050</b>	<b>€ 29,459</b>
<b>PROFESSIONAL SERVICES</b>		
Auditor	Kr 8,160	€ 950
Accounting and payroll	Kr 71,400	€ 8,312
IT	Kr 44,074	€ 5,131
Communications	Kr 73,815	€ 8,593
Web and digital media	Kr 31,185	€ 3,630
Video conference system	Kr 1,500	€ 175
Miscellaneous	Kr 20,000	€ 2,328
<b>Professional servic</b>	<b>Kr 250,134</b>	<b>€ 29,119</b>
<b>OVERHEAD/OFFICE</b>		
Computers and hardware	Kr 17,600	€ 2,049
Mobile phones, purchase and	Kr 39,200	€ 4,563
Supplies	Kr 8,300	€ 966
Printers	Kr 3,700	€ 431
Freight	Kr 2,500	€ 291
Miscellaneous	Kr 10,000	€ 1,164
<b>Overhead/office</b>	<b>Kr 81,300</b>	<b>€ 9,464</b>
<b>GEN.ADM.ISSUES</b>		
Meetings/representation	Kr 57,881	€ 6,738
Subscriptions	Kr 21,420	€ 2,494
Fees	Kr 2,000	€ 233
<b>Gen.adm.issues</b>	<b>Kr 81,301</b>	<b>€ 9,465</b>
<b>TRAVEL</b>		
Travel	Kr 220,000	€ 25,611
<b>Travel</b>	<b>Kr 220,000</b>	<b>€ 25,611</b>
<b>TOTAL COST 2023</b>	<b>Kr 2,787,273</b>	<b>€ 324,479</b>

Exchange rate: 8,59 (5-year average 2016 - 2020)

## PART V | ACRONYMS AND ABBREVIATIONS

final draft

## ACRONYMS AND ABBREVIATIONS FOUND IN ARCTIC COUNCIL REPORTS

AAC	Arctic Athabaskan Council
ACA	Adaptation Actions for a Changing Arctic (AMAP project)
AAR	After-Action Report (EPPR, 2019)
ABA	Arctic Biodiversity Assessment (CAFF, 2013)
ABDS	Arctic Biodiversity Data Service (CAFF)
ACAP	Arctic Contaminants Action Program (1 of 6 Working Groups)
ACGF	Arctic Coast Guard Forum
ACIA	Arctic Climate Impact Assessment (AMAP, 2005)
ACOPS	Advisory Committee on Protection of the Seas (Observer)
ACS	Arctic Council Secretariat
AEC	Arctic Economic Council
AEPS	Arctic Environmental Protection Strategy
AEWA	African-Eurasian Waterbird Agreement
AHDR	Arctic Human Development Report
AHHEG	Arctic Human Health Expert Group (SDWG)
AIA	Aleut International Association
AINA	Arctic Institute of North America
AMAP	Arctic Monitoring and Assessment Programme (1 of 6 Working Groups)
“AMAROK”	The Arctic Council Tracking Tool “AMAROK”
AMATII	Arctic Maritime and Aviation Transportation Infrastructure Initiative (SDWG, 2011, 2013)
AMBI	Arctic Migratory Birds Initiative (CAFF)

AMIUM	Arctic Marine Indigenous Use Mapping: Tools for Communities (PAME)
AMSA	Arctic Marine Shipping Assessment (PAME, 2009)
AMSP	Arctic Marine Strategic Plan 2015-2025 (PAME, 2015)
AMTP	Arctic Marine Tourism Project (PAME)
AOA	Arctic Ocean Acidification (AMAP, 2013)
AOOGG	Arctic Offshore Oil and Gas Guidelines (PAME, 2009)
AOR	Arctic Ocean Review Project (PAME, AMAP)
AORF	Arctic Offshore Regulators' Forum
AOR	Arctic Ocean Review (PAME, 2013)
AOS	Arctic Observing Summit
APAI	Arctic Protected Areas Indicator Report (PAME, CAFF)
APG	Associated petroleum gas
Arctic TEEB	The Economics of Ecosystems and Biodiversity in the Arctic (CAFF)
AREA	Arctic Renewable Energy Atlas (SDWG project)
ARENA	Arctic Remote Energy Networks Academy (SDWG project)
ARIAS	Arctic Invasive Species Strategy and Action Plan (CAFF initiative)
ARR / ARA	Arctic Resilience Report / Arctic Resilience Assessment
ARAF	Arctic Resilience Action Framework
ASDI	Arctic Spatial Data Infrastructure
ASDS	Arctic Shipping Data Service (PAME)
ASTD	Arctic Ship Traffic Data project (PAME)
ASTI	Arctic Species Trend Index (CAFF)
AWRH	Association of World Reindeer Herders (Observer)
BCM	Black Carbon and Methane
BEAC	Barents Euro-Arctic Council

CAFF	Conservation of Arctic Flora and Fauna (1 of 6 Working Groups)
CASA	Compendium of Arctic Shipping Accidents (PAME)
CBD	Convention on Biological Diversity
CBird	The Circumpolar Seabird Expert Group (CAFF)
CBM	Community-Based Monitoring
CBPM	Circumpolar Biodiversity Monitoring Program (CAFF)
CBMP	Circumpolar Biodiversity Monitoring Program (CAFF initiative)
CBVM	Circumpolar Vegetation Map/Mapping (CAFF)
CBSS	Council of the Baltic Sea States
CCAC	Climate and Clean Air Coalition
CCU	Circumpolar Conservation Union (Observer)
CEMG	Coastal Expert Monitoring Group (CAFF)
CFG	Circumpolar Flora Group
CLEO	Circumpolar Local Environmental Observer Network (ACAP)
ClC	Climate and Cryosphere
CLRTAP	Convention on Long-Range Transboundary Air Pollution
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CPAN	Circumpolar Protected Areas Network (CAFF)
C&O group	Communications and outreach group
DCE	Designated/contributing expert (AMAP)
EA	Ecosystem Approach
EAAFP	East Asian Australasian Flyway Partnership
EALLU	Arctic Indigenous Youth, Climate Change and Food Culture (SDWG)
EBM	Ecosystem-Based Management
EBSAs	Ecologically and Biologically Significant Areas (AMAP, CAFF, PAME)

ECONOR	Economy of the North (SDWG project)
EG	Expert Group
EGBCM	Expert Group on Black Carbon and Methane
EPA	Environmental Protection Agency (USA, Sweden)
EPPR	Emergency Prevention, Preparedness and Response (1 of 6 Working Groups)
ERMA	The Environmental Response Management Application (EPPR)
EU	European Union
FAO	Food and Agriculture Organization (UN)
FCZ	Fisheries Conservation Zone
FEMG	Freshwater Expert Monitoring Group (CAFF)
FP-OPP	Framework Plan for Cooperation on Prevention of Oil Pollution from Petroleum and Maritime Activities in the Marine Areas of the Arctic (2015)
GBIF	Global Biodiversity Information Facility
GCI	Gwich'in Council International
GEF	Global Environment Facility
GIS	Geographic Information System
HELCOM	Helsinki Commission, protection of Baltic marine environment
HFC	Hydrofluorocarbons
HFO	Heavy Fuel Oil (PAME)
HHAG	Human Health Assessment Group (AMAP)
HoD	Head of Delegation
HSEMS	Health Safety and Environmental Management Systems (PAME)
IASC	International Arctic Science Committee (Observer)
IASSA	International Arctic Social Sciences Association (Observer)
ICC	Inuit Circumpolar Council



ICES	International Council of the Exploration of the Seas
IEA	Integrated Ecosystem Assessment (PAME)
IMO	International Maritime Organization (UN)
IPCAP EG	Indigenous Peoples' Contaminants Action Program Expert Group
IPCC	Intergovernmental Panel on Climate Change
IPPI	International Polar Partnership Initiative
IPS	Indigenous Peoples' Secretariat
IPY	International Polar Year
ISAC	International Study of Arctic Change
ISO	International Organization for Standardization
ITU	International Telecommunications Union
IUCH	International Union for Circumpolar Health (Observer)
IUCN	International Union for the Conservation of Nature (Observer)
IWGIA	International Work Group for Indigenous Affairs (Observer)
KNE	Key National Expert (AMAP)
LME	Large Marine Ecosystem (PAME)
MARPOL	International Convention for the Prevention of Pollution from Ships
MEMA	Meaningful Engagement of Indigenous Peoples and Local Communities in Marine Activities (PAME, SDWG)
MEPC	Marine Environment Protection Committee (PAME)
MFA	Ministry of Foreign Affairs
ML-RAP	Regional Action Plan on Marine Litter in the Arctic (PAME)
MOSPA	Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (2013)
MPA	Marine Protected Area

NAMMCO	North Atlantic Marine Mammal Commission (Observer)
NCM	Nordic Council of Ministers (Observer)
NEFCO	Nordic Environment Finance Cooperation (Observer)
NF	Northern Forum (Observer)
NOAA	National Oceanic and Atmospheric Administration (USA)
ODS	Ozone-Depleting Substances
OSPAR Atlantic	The Convention for the Protection of the Marine Environment of the North-East Atlantic
O&G	Oil and gas
LMEs	Large Marine Ecosystems
PAME	Protection of the Arctic Marine Environment (1 of 6 Working Groups)
PCB	Polychlorinated biphenyl
PICES	North Pacific Marine Science Organization
PINRO	Polar Institute of Marine Fishery and Oceanography (RF)
POP	Persistent Organic Pollutant
PP	Permanent Participant
PSI	Project Support Instrument
RAIPON	Russian Association of Indigenous Peoples of the North
REDEG	Resource Exploration and Development Expert Group (PAME)
RPA	Regional Programme of Action
RRFP	Regional Reception Facilities Plan (PAME)
SAMBR	State of the Arctic Marine Biodiversity Report (CAFF project)
SAO	Senior Arctic Official
SAOC	SAO Chair (Chair of the Senior Arctic Officials)
SAOX	SAO executive meeting



SOLAS	International Convention for the Safety of Life at Sea
SAON	Sustaining Arctic Observing Networks
SAR	Search and rescue
SCPAR	Standing Committee of the Parliamentarians of the Arctic Region (Observer)
SC	Saami Council
SCTF	Task Force on Enhancing Scientific Cooperation in the Arctic
SDG	UN Sustainable Development Goals
SDI	Spatial Data Infrastructure
SDWG	Sustainable Development Working Group (1 of 6 Working Groups)
SECEG	Social, Economic and Cultural Expert Group (SDWG)
SLCP/F	Short-Lived Climate Pollutants/Forcers
SLCP/F EG	Short-Lived Climate Pollutants/Forcers Expert Group
SWIPA	Snow, Water, Ice, and Permafrost in the Arctic (AMAP project)
TBD/TBC	To be determined / To be confirmed
TF	Task Force
TFAMC	Task Force on Arctic Marine Cooperation
TFAMC II	Task Force on Arctic Marine Cooperation II
TFBCM	Task Force on Black Carbon and Methane
TFCBF	Task Force to Facilitate the Circumpolar Business Forum
TFICA	Task Force on Improved Connectivity in the Arctic
TFII	Task Force on Institutional Issues
TFOPP	Task Force on Arctic Marine Oil Pollution Prevention
TFTIA	Task Force on Telecommunications Infrastructure in the Arctic
TK	Traditional knowledge
TKLK	Traditional knowledge and local knowledge

ToR	Terms of Reference
TTX	Table Top Exercise
UArctic	University of the Arctic
UAS	Unmanned Aircraft System
UN	United Nations
UNCLOS	UN Convention on the Law of the Sea (1982)
UN-ECE	United Nations Economic Commission for Europe (Observer)
UNDP	United Nations Development Programme (Observer)
UNEP	United Nations Environment (Observer)
UNFCCC	UN Framework Convention on Climate Change
WG	Working Group
WHO	World Health Organization
WMO	World Meteorological Organization
WMU	World Maritime University
WWF	World Wildlife Fund for Nature – Global Arctic Program (Observer)
WP	Work plan

## PART VI | ANNEXES

final draft

## ANNEX I

# Arctic Council Communications Strategy (2020)

The “Arctic Council Communications Strategy” guides communication and outreach activities within the Arctic Council network until the next biennial review and it replaces the strategy for the period 2018-2020.

**Open Access Archive:**

[https://oaarchive.arctic-council.org/bitstream/handle/11374/2510/SAOIS202\\_2020\\_RVK-Virtual1\\_03-1A\\_Arctic-Council-Communications-Strategy-2020.pdf?sequence=1&isAllowed=y](https://oaarchive.arctic-council.org/bitstream/handle/11374/2510/SAOIS202_2020_RVK-Virtual1_03-1A_Arctic-Council-Communications-Strategy-2020.pdf?sequence=1&isAllowed=y)

final draft

## ANNEX II

# Arctic Council – Arctic Coast Guard Forum Statement for Cooperation

**March 2021**

The Arctic Council (the Council) serves as the leading intergovernmental forum for promoting cooperation, coordination, and interaction on common issues among the Arctic States, Arctic Indigenous communities, and other Arctic inhabitants. The Arctic Coast Guard Forum (ACGF) is an independent, informal, operationally-driven organization unifying coast guards or organizations that perform coast guard functions, not bound by treaty, to foster safe, secure, and environmentally responsible maritime activity in the Arctic.

The members of the Council and the ACGF have reached the following understanding to further our common goal of enhancing and promoting safe, sustainable, and responsible maritime activity in the Arctic:

- that strengthened cooperation between the Council and the ACGF is mutually beneficial.
- to exchange information of current concern on initiatives and operational experience related to the Council's and ACGF's respective mandates – with a view to avoid duplication and optimizing resources.
- to enhance information sharing and coordinate mutually beneficial activities through the Council and ACGF Secretariats.
- that in respect of the differences in the structure, membership, and mandates of the Council and ACGF, all possible activities are expected to be realized when feasible and appropriate, including to extend invitations to their respective meetings as serves their purposes.
- that both the Council and ACGF representatives can be invited to observe (participate in) each other's meetings/exercises. The extent of participation in meetings and exercises will be evaluated on a case-by-case basis and approved in accordance with each organization's internal procedures.
- that the Council and ACGF members will each bear their own costs and expenses to finance activities undertaken under this cooperation in accordance with their own organizational documents.
- that in order to facilitate the joint collaboration between the Council and the ACGF, relevant planning documents may be developed that coincide with other planning factors. Before implementing any specific activities of mutual interest, the Council and the ACGF intend to discuss the opportunities and challenges presented.
- that all activities and exchange of information under this Statement of Cooperation are subject to the domestic law of Participants of both the Council and the ACGF.

In light of the operational focus of the areas of collaboration noted above, the Council's Working Group on Emergency Prevention, Preparedness and Response is the designated primary liaison between the Council and the ACGF Secretariat for implementing this strengthened cooperation on the two existing agreements negotiated under the auspices of the Council: the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic (2011) and the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (2013). This does not preclude the Council and ACGF cooperation through other Council bodies where and when appropriate.

final draft

## ANNEX III

# AMAROK: Arctic Council Tracker (2021 update)

**Open Access Archive:**

(forthcoming)

final draft

## ANNEX IV

# Continuation of the SAO Marine Mechanism: Chairmanship's concept note

Based on the experience and valuable lessons learned from the 2020 SMM edition, the Icelandic Chairmanship recommends that the SMM be continued as a recurrent Arctic Council forum organized through annual meetings during a two-year Chairmanship cycle, initiated by the incoming Russian Chairmanship in 2021-2023. The SMM should form a two-tier sequential process.

The Chairmanship's concept note on the "Continuation of the SAO Marine Mechanism" was discussed at the SAO plenary meeting on 16-18 March 2021.

**Open Access Archive:** <https://oaarchive.arctic-council.org/handle/11374/2570>

final draft

final draft