



Arctic Council SAO plenary meeting  
13-14 March 201, Ruka, Finland  
Meeting code: SAOFI204

Document Title

AMAROK Mini Update

Agenda item number

InfoDoc 11

Submitted by

ACS

Document filename

SAOFI204\_2019\_RUKA\_InfoDoc11\_AMAROK-Mini-Update

Number of pages, not including this cover sheet

18

Working Group	Initiative Title	Short Summary	Status	SAO Notes	AC Leads	Deliverables 2019
ACAP	1.1 Reduction of Black Carbon from Diesel Sources in the Russian Arctic Project (SLCP EG)	Assess primary sources of black carbon in the Russian Arctic; develop a baseline emissions inventory for black carbon from diesel in key areas; implement targeted demonstration projects; establish policy recommendations and financing options.	Completed		USA	
ACAP	1.4 Valday Cluster Upgrade for Black Carbon Reduction in the Republic of Karelia, Russian Federation (SLCP EG)	This project aims to implement a range of alternatives for providing energy to off-grid settlements in this region with the objectives to: 1) contribute to mitigation of pollutants, including SLCs such as BC and other GHGs; 2) decrease the dependence of the Cluster settlements on transported fossil fuels; 3) reduce the electricity/district heating costs for the municipality; 4) increase the reliability and quality of electricity/district heating supply and 5) strengthen the expertise of the local institutions in the energy supply and project management.	Delayed	Work in five of the eight settlement is considered completed. Communication with the project beneficiary (PSK) is ongoing regarding the remaining three settlements of Valday, Polga, and Reboyl. Based on information from May 2018, it seems likely that PSK will not take investment plans for these remaining settlements forward.	USA	Final Project Reports
ACAP	2.1 Non-ferrous/Zinc Smelter Mercury Reduction in the Russian Federation (POPS/mercury EG)	The project will seek to identify, develop and apply pollution reduction approaches and technologies to a selected pilot smelter, and monitor the approaches for baseline and progress determinations. The project awaits a signed letter of commitment to participate in the project from the smelter facility owners.	Delayed	Will be removed from the ACAP WP	RUS; USA	
ACAP	3.1 Use of Super Critical Water Oxidation (SCWO) for environmentally sound destruction of obsolete pesticides (Hazardous Waste EG)	The project will aim to demonstrate whether Russian super-critical water oxidation facility (SCWO) based on the SCHO-10-EET technology located in Krasnoyarsk, Russian Federation, will provide a domestic capability for cost effective, environmentally sound destruction of obsolete pesticides and specifically POPs pesticides. The technology demonstration also has a broader national and global objective of contributing to Russia's ability to achieve compliance under Article 6 of the Stockholm Convention. This is also consistent with the global objectives of the Arctic Council and ACAP in respect to reduction in Arctic contamination. Project completion is contingent on PSI funding. PSI approved 450 000 Euros for Stage 2: testing of the process on 10/10/2017	Delayed	Implementation of SCWO testing (phase 2) and selection of supervisory consultant have been delayed.	FIN; RUS	
ACAP	3.2 Demonstration of management and destruction of 250 tons of PCB in transformers: Phase III (Hazardous Waste EG)	PCB Project addresses mitigation of the PCB problem in RF. The aim is to destroy 250 tons of PCB via two sub-projects: 1. Emptying and cleaning contaminated PCB containing transformers; 2. Destruction of PCB. The method can also be used to destroy other hazardous pollutants e.g. certain types of pesticides. This project is part of a larger GEF/UNIDO/Russian Railways Project, which is due to end in 2019.	Delayed		FIN; RUS	
ACAP	3.3 Demonstration of Rapid Environmental Assessment of Pesticides Contaminated Sites (Hazardous Waste EG)	The project will demonstrate a cost-effective and rapid technique to screen levels and scope of contamination at old pesticide storage sites using a methodology that the Blacksmith Institute developed for the UN Food and Agriculture Organization (FAO). The method can help to assess the environmental and health risks caused by hundreds of old pesticides storages in Northern Russia. The project closely follows on Russian implementation of Stockholm Convention on POPs.	Delayed	Work continues to identify a Russian main consultant for the project.	FIN; NOR; SWE	
ACAP	3.4 Dudinka Municipal Waste Land-fill project	Dudinka city landfill is located on permafrost about 500m from the Yenisey River in Krasnoyarsk Krai. The project aims to assess environmental impacts of the landfill and develop remediation technology. The work will include a survey of existing approaches, implementation of remediation, identification of other sites to replicate the methodologies and introduction of best available technologies for rehabilitation of MSW landfills.	Delayed	Russia has placed a study reservation on the project and work can not proceed until this has been lifted. Last discussed at the PCOM meeting on October 9, 2018, and the study reservation remains in place.	RUS	
ACAP	1.2 Arctic Green Shipping - SLCP Mitigation	The project aims to reduce atmospheric emissions of SLCs 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 Arctic.	Delayed	Project commencement delayed due to study reservations by Russia. ACAP has expressed concerns on the project based on news from Volgotrans that is plans to expand its fleet and that routes are between St Petersburg and the Sea of Azov in the south, not the Arctic.	RUS	
ACAP	2.6 Promotion of decrease of the Barents region pollution by introduction of BAT	The project goal is to prevent and decrease Arctic pollution based on the BAT knowledge delivery to enterprises and universities, facilitating environmental investments in the area. Includes a feasibility study, development of a continuously operating education systems for experts and authorities, workshops and seminars to distribute findings.	Delayed	The project is delayed due to a study reservation from Russia.	RUS; SWE	

ACAP	2.2 Mercury Control Technology Workshop (POPs/mercury EG)	<p>This Workshop project is intended to disseminate results and encourage replication of successful mercury emissions reduction approaches, including the results from a US-led pilot project, conducted in cooperation with various Russian institutes, UNEP and Sweden, completed in 2014, on carbon sorbent technologies* at a coal-fired power plant in Cherepetskaya, Russia. The project is designed to have a complementary function to a GEF-funded project, being implemented by the Russian Federation and UNEP, comprising a mercury emission inventory and the drafting of a Minamata Action Plan. In addition to coal combustion, the workshop would address other key sectors for emissions reductions including non-ferrous metals smelting and gold mining. The Project Steering Group on Mercury developed a proposal for a project focusing on disseminating and replicating results.</p> <p>* (Standard activated carbon and bromated carbon injection; the project also investigated the stability of sorbent-containing fly ash residues and the leaching potential of metals.)</p>	On Hold		RUS; USA	
ACAP	2.4 Pilot emission reduction actions at Vorkutinskiy Cement Plant (POPs/mercury EG)	<p>Based on the results from inventory activities in Phase I (2002-2005) and Phase II (2006-2008), the Vorkutinskiy Cement Plant (VCP) was selected for a Phase III Pilot Action Project for reduction of dioxins and furans emissions. In close cooperation with NEFCO, the EG so far conducted the following activities at the facility:</p> <p>1: Prefeasibility study by NEFCO (2011-2013), 2: Seminar on environmental requirements on using waste as fuel (2014); 3: Sample and Analysis of Emissions (2014-2016), 4: Feasibility Study and Drafting of an Action Plan for Reduction Actions at VCP (2014-2016), If deemed feasible and fundable, the following activities are supposed to follow from 2016:</p> <p>5: Implementation of Reduction Actions, 6: Assessment of Reduction, 7: Dissemination of experiences.</p>	On Hold		SWE	
ACAP	1.3 Arctic Black Carbon Case Studies Platform (SLCP EG)	<p>Through this project, EPA will work with its partners in ACAP to present a catalogue of black carbon mitigation efforts – a set of standardized case studies or “snapshots” – to capture the variety of interventions and policy tools that can reduce black carbon emissions.</p>	On track	<p>Twenty new case studies, from Canada and the US, have been added to the platform. They have been mapped in Arctic ERMA. Showcase case studies will be added to the ACAP Black Carbon Case Studies Platform web page shortly.</p>	USA	New cases studies
ACAP	1.5 Mitigation of methane emissions - Syktyvkar Dyrnos landfill project, Russian Federation (SLCP EG)	<p>The Dyrnos Landfill project consists of two main components including final closure of the existing landfill and installation of a methane gas collection and utilization system and construction of a new sanitary plot at the existing landfill and completion of construction works and commissioning of a new waste sorting facility.</p> <p>The project will take important steps towards reducing the adverse environmental and health impacts from the current waste management system. It will contribute towards achieving the compliance with the relevant Russian and EU environmental standards, and will be a key contribution to the final exclusion of the Barents Environmental "Hot Spot" Ko-6 (waste management in the Republic of Komi). The project is expected to demonstrate the improvement of municipal solid waste management towards integrated waste management systems in Russian cities.</p>	On track	<p>The project was stalled because of institutional changes in the Komi Republic and the City of Syktyvka. Recently, however, NEFCO has resumed working on the development of this project with the regional partners, and commissioned the consultant Sweco to make a generic update of the Russian solid waste management system based on the introduction of the law on waste management with many new sub-laws, for instance on producers' responsibilities. Once the study is received an updated feasibility study covering the landfill at Dyrnos and one or more alternative investment options for future solid waste treatment in the capital region of the Komi Republic will be developed. A modified project proposal for the Dyrnos landfill as well as for one or several investment options for solid waste management after the landfill's closure is expected by ACAP.</p>	RUS	
ACAP	1.6 Phase-out of ozone-depleting substances and fluorinated greenhouse gases (HFC) at fish and seafood processing enterprises (SLCP EG)	<p>The project has two main objectives. The first is to phase out hydrochlorofluorocarbons and hydrofluorocarbons at one of the fish and seafood processing enterprises of the Murmansk oblast. The second is to transfer ozone and climate-safe technologies to onshore fish and seafood processing enterprises that use hydrochlorofluorocarbons and hydrofluorocarbons in refrigeration and air-conditioning equipment, enterprises engaged in repair and after-sales service of onboard refrigeration and air-conditioning equipment in the Murmansk oblast, and initiate their conversion to environmentally safe refrigerants.</p>	On track		RUS	
ACAP	2.5 P2345 - Inventory programs, control technologies and other support to Russia's compliance with international convention requirements (POPs/mercury EG)	<p>This project is currently being further developed by the EG POPs/HG. Two of the work packages (P3: Source Inventory and P4: Control Technologies) are being developed into new project proposals which will come forward to ACAP for approval at a future WG meeting.</p>	On track	<p>No project proposals have been submitted to ACAP for approval under work packages P3 and P4.</p>	RUS; SWE	

ACAP	4.1 Circumpolar Local Environmental Observers (CLEO) Network (IPCAP)	The Arctic Council will expand the coverage of an existing Alaska-based monitoring tool, the Local Environmental Observer network (LEO) that links traditional knowledge and scientific analysis, across the Arctic. Trained traditional knowledge experts are able to record their observations in the LEO database. These observations are reviewed by the Alaska Native Tribal Health Consortium (ANTHC), which serves as a secretariat. ANTHC is able to share observations of concern with regulators, academics and others who can in turn provide technical assistance to local communities when needed. During Phase I of the project, ACAP will create a North American CLEO "Hub", including indigenous communities in the Alaskan and Canadian Arctic for delivery to the 2017 Ministerial. In addition, we will explore the development of a framework for expansion of the CLEO to the Nordic region. Phase II of the project is to establish a CLEO Hub in the Nordic region, as appropriate and explore options for linking with Russian indigenous communities. Phase III of the project will look at interoperability of the CLEO Hubs and/or related observational networks. The CLEO project is also captured in the Resilience project description.	On track	Work is ongoing. Recent workshop was held on the margins of the Arctic Biodiversity Congress.	CAN; USA	
ACAP	4.2 Community-based black carbon and public health assessment (IPCAP)	This project, which is a collaboration of the AIA, Arctic Alliance, Alaska Native Science Commission, University of Alaska-Anchorage, and the University of Alaska-Fairbanks, with support from the Swedish Environmental Protection Agency, will: assess, on a pilot basis, local sources of black carbon emissions from a representative sampling of Arctic Alaskan and Russian villages; provide a broad characterization of associated risks to public health; explore short and long-term mitigation options; assess and, where possible, strengthen local capacities to identify, mitigate and prevent black carbon pollution; draft a framework tool for community-based assessments of black carbon emissions and health risks; and educate local communities about black carbon emissions and risks.	On track	The project is under implementation in 2 villages in Alaska and one in Russia. The desk top study is planned to be ready by the end of 2018. Key activities are structured under the themes of community outreach, public health, and air quality. Planned activities in Alaska have gone well. In Russia, identification of indigenous communities is ongoing. Key outputs will include a community BC survey template. Further PSI funding is being considered pending results of current activities.	USA; AIA	
ACAP	1.7 Mitigation of black carbon and methane emissions from APG flaring in the Arctic zone of the Russian Federation	The Project seeks to improve knowledge on black carbon and methane emissions in the Russian Arctic, with emphasis on the oil and gas sector, and spur enhanced actions to reduce emissions.	On track		RUS	
ACAP	2.3 Phase III Reduction/Elimination of Emissions of Dioxins and Furans in Russia with a focus on Northern regions (POPs/mercury EG)	Project to reduce dioxins and dust emission and training program for the Vorkutinsky cement plant	To be archived		SWE	
AMAP	01. Adaptation Actions for a Changing Arctic	Pilot project on adaptation to Arctic change. TLK is used throughout the project with project participation from PP representatives.	Completed	AACA has collected and assessed a wealth of information for end-user to adapt to Arctic change. The Arctic is highly dynamic and interdependent changes from climate, globalization, economics, demography and politics from local to international level. Climate is far from the only driver of Arctic change.	CAN; FIN; KOD; NOR; RUS; SWE; USA	None
AMAP	02. Air Pollution, including SLCFs	2019/21: Integrated assessment of air pollution with focus on SLCPs	On track		CAN; FIN; NOR; USA	Technical/progress report (final delivery 2021)
AMAP	03. Human Health and combined effects	Further develop AMAP initiative on human health, particularly biomonitoring and cohort studies and health effects of contaminants. HHAG will prepare an update assessment of POPs and Hg exposure and health effects, and begin a review of health effects of dietary transitions; HHAG will also update AMAP guidelines for circumpolar monitoring of contaminants.	On track		CAN; KOD	
AMAP	04. Unmanned Aircraft Systems (UAS)	Continue work on safety guidelines and demonstrate the use of cross-jurisdictional environmental monitoring	On track		NOR; USA	
AMAP	05. Contaminant issues: Radioactivity	Continuing review of the radioactivity status of the Arctic. Assessment report by 2023.	On track		NOR; RUS	
AMAP	06. Contaminant issues: POPs and mercury	AMAP's POPs and mercury expert groups will produce updated assessment components as follows: 2019/20: Initiate update assessment on Climate Change - POPs Interactions 2019/21: Update of 2011 Mercury assessment for delivery in 2021 2019/20: Contributions to Stockholm and Minamata Convention Effectiveness Evaluations	On track	Planned presentation of biological effects update assessment at Arctic Biodiversity Congress	CAN; KOD; SWE	Possible Summary for Policymakers

AMAP	07. Sustaining Arctic Observing Networks (SAON)	SAON's vision is a connected, collaborative, and comprehensive long-term pan-Arctic Observing System that serves societal needs. SAON's mission is to facilitate, coordinate, and advocate for coordinated international pan-Arctic observations and to mobilize the support needed to sustain them.	On track		ICE; NOR; USA	
AMAP	08. AMAP Trends and Effects Programme	AMAP is conceived as a process integrating both monitoring and assessment activities, in order to: produce integrated assessment reports on the pollution and climate status and trends of the conditions of Arctic ecosystems; identify possible causes for changing condition detect emerging problems, their possible causes, and the potential risk to Arctic ecosystems including indigenous peoples and other Arctic residents; recommend actions required to reduce risks to Arctic ecosystems.	On track		CAN; FIN; ICE; KOD; NOR; RUS; SWE; USA; AAC; AIA; GCI; ICC; RAIPON; Saami Council	
AMAP	09. Arctic Ocean Acidification	Prepare a report with a focus on the socioeconomic impacts of Arctic Ocean acidification, like fisheries. Follow up to the AMAP 2013 AOA report.	On track		NOR; USA	Summary for Policymakers
AMAP	10. Climate Issues: Snow, Water, Ice and Permafrost in the Arctic (SWIPA)	Climate work will continue to contribute to the IPCC AR6 Report and further develop work on thresholds and extremes, Arctic/mid-latitude weather connections and performance of global models in the Arctic, with greater contribution from the meteorology community. Scoping work will be initiated to evaluate the impacts of climate change on Arctic marine and terrestrial ecosystems and ecosystem feedbacks to climate. Develop materials for outreach.	On track		KOD	
AMAP	12. AMAP Strategic Framework 2019+	Update of AMAP Strategic Framework	On track	Input on Arctic Council future strategy discussions would be relevant	CAN; FIN; ICE; KOD; NOR; RUS; SWE; USA; AAC; AIA; GCI; ICC; RAIPON; Saami Council	
AMAP	13. Arctic marine microplastics and litter	AMAP will follow-up on PAME's Desktop Study on Marine Litter including Micro-plastics in the Arctic and the recommendation to develop a regional action plan on marine litter in the Arctic; AMAP's contribution will be to develop the monitoring programme and guidelines to accompany the mentioned action plan.	On track		NOR	
AMAP	11. International Conference on Arctic Science: Bringing Knowledge to Action - April 24-27, 2017 Reston, Virginia, USA	Arrangement of an international conference to showcase results of recent AMAP (and other WGs) scientific assessment work	To be archived		USA	None
CAFF	02. Nomadic herders: enhancing resilience of pastoral ecosystems and livelihoods	Project at risk/delayed because release of Global Environment Fund (GEF) funding remains stalled  <ul style="list-style-type: none"> <li>• Purpose of this project is to strengthen the sustainability of the pastoralist livelihoods; and to increase the resilience and capacity of the nomadic communities to adapt to change.</li> <li>• The project engages TK holders and their information.</li> </ul>	Awaiting info		RUS; Saami Council	
CAFF	06.1 Invasive species	Project aims to 1) prevent the introduction of invasive species in Arctic marine, coastal, freshwater, and terrestrial ecosystems, and through establishing a baseline, improve management of on-going invasions using risk-based assessment and management approaches; and 2) develop an invasive species strategy delivered to the 2017 Arctic Council Ministerial, including recommendations for management actions, which might be addressed in subsequent phases of this initiative. Proposed actions/recommendations will be submitted to the CAFF Board for negotiation and approval. CAFF is working with PAME on the marine and coastal components of the strategy.  CAFF Chair will lead a process to determine ways forward in consultation with the PAME Chair and the Implementation Coordination Group (ICG) members.	Awaiting Info		SWE	Progress report with specific deliverables to be determined
CAFF	09. Arctic Flora program	<ul style="list-style-type: none"> <li>•The CAFF Flora Group (CFG) promotes, encourages and coordinates the international conservation of Arctic flora, vegetation, and habitats as well as research activities. It works to enhance the exchange of information on Arctic flora and vegetation and factors affecting the status and trends in Arctic flora species.</li> <li>• A key activity led by the US is the Circumboreal Vegetation Map (CBVM) will develop a global map of the circumboreal forest biome with a common legend. By recognizing the boreal region as a single geo-ecosystem with a common set of cultural, political and economic issues, the CBVM project will be the first detailed vegetation map of the entire global biome.</li> </ul>	Awaiting Info			To be determined
CAFF	14. Salmon peoples of Arctic rivers	Project start delayed due to challenges in securing funding required. The Salmon Peoples of Arctic Rivers (SPAR) will bring together TK holders, scientists and resource agencies to design 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.  Awaiting info- longer time required to incorporate feedback review from TK holders	Awaiting info		AAC; AIA; GCI; ICC; RAIPON; Saami Council	

CAFF	04. Second Arctic Biodiversity Congress	<p>The second Arctic Biodiversity Congress, held in Rovaniemi, Finland in October 2018 brought together scientists, policy-makers, government officials, indigenous peoples, students, industry and civil society representatives to discuss challenges facing Arctic biodiversity and actions for conservation and sustainable use of the Arctic's living resources. With over 500 participants it was the largest such gathering in the history of the Arctic Council. The Congress was held in conjunction with an Arctic Environment Ministers meeting hosted by Finland, so offered an opportunity for engagement with Arctic ministers on important biodiversity issues.</p> <p>Through the use of a variety of engagement techniques focused on promoting dialogue and collaborations, the Arctic Biodiversity Congress provides a model to promote the Arctic Council and bring a wide range of perspectives into its work. All of the Arctic Council WGs contributed to the event's development and helped ensure its success and Permanent Participants of the Arctic Council were involved in all stages of the event.</p> <p>CAFF in partnership with the Ministry of the Environment and the Foreign Ministry, Finland, is organizing the Arctic Biodiversity Congress, 2018 to promote the conservation and sustainable use of Arctic biodiversity. The Congress is relevant to all who wish to make specific and significant contributions to the conservation of Arctic biodiversity through dialogue among scientists, indigenous peoples, policy-makers, government officials, industry, students, and civil society. Goals include:</p> <p>The 2nd Arctic Biodiversity Congress was designed around six main themes, determined by the Arctic Biodiversity Assessment recommendations for policy, including: climate change; ecosystem-based management; mainstreaming biodiversity; addressing individual stressors on biodiversity; identifying and safeguarding important areas for biodiversity; and improving knowledge and public awareness.</p> <p>The Congress is mainly convened to:</p> <ul style="list-style-type: none"> <li>-Advise CAFF on national and international implementation of the Arctic Biodiversity Assessment (ABA) policy recommendations and on any changes to future phases of the Actions for Biodiversity 2013-2021;</li> <li>-Assess progress in the Arctic in comparison with the Convention on Biological Diversity's (CBD) Strategic Plan for Biodiversity 2011-2020, the Aichi Targets and the Sustainable Development Goals (SDGs);</li> <li>-Relate the work of CAFF and the Arctic Council to other global processes, such as the CBD, The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and the Convention on the Conservation of Migratory Species of Wild Animals;</li> <li>-Facilitate interdisciplinary discussion, action and status updates on implementation of ABA policy recommendations among scientists, government officials, policy makers, indigenous peoples and industry representatives; and</li> <li>-Increase the global visibility of Arctic biodiversity and raise CAFF and the Arctic Council's profile amongst target audiences to reaffirm its credibility in Arctic biodiversity research and policy.</li> </ul>	Completed		FIN; USA	Report on the outcomes of the Congress
CAFF	10. Conservation of biodiversity in a changing Russian Arctic	<p>Assessment activity</p> <p>*awaiting Global Environment Facility Decision</p>	Delayed		RUS	To be determined
CAFF	06.2 Climate change impacts on bearded seals	<p>Project aims to increase comparative understanding of ice-associated Arctic marine mammals and their responses to large-scale environmental changes; enhancing forward-looking capacity will improve potential opportunities for mitigation and conservation.</p>	On Hold		NOR; USA	
CAFF	01. Circumpolar Biodiversity Monitoring Program (CBMP) - General	<ul style="list-style-type: none"> <li>- The CBMP is a flagship program of the CAFF working group and an ongoing monitoring program that has received international recognition</li> <li>- The CBMP is the biodiversity component of the Sustaining Arctic Observing Network (SAON) and is the official Arctic biodiversity network of the Global Earth Observation's Biodiversity Observation Network (GEOBON).</li> <li>- CBMP activities are structured around the major Arctic ecosystem: marine, freshwater, terrestrial and coastal.</li> <li>- The plans help improve ability to detect important trends, link these trends to their underlying causes, predict future trends and scenarios for Arctic biodiversity, and thereby provide more timely and credible information to support decision making.</li> <li>- The CBMP endeavours to include TK holder expertise from the inception of projects to the analysis of information gained. It also seeks to include a diverse network of experts with both science and TK expertise.</li> </ul>	On track		KOD; USA	See other CBMP components for deliverables.
CAFF	01.1 CBMP Marine Biodiversity Monitoring group	<ul style="list-style-type: none"> <li>- The Arctic Marine Biodiversity Monitoring Plan was delivered in 2011 and is the first of four pan-Arctic biodiversity monitoring plans developed by the CBMP to improve the ability to detect and understand the causes of long-term change in the composition, structure and function of Arctic ecosystems. Since the delivery of the Marine Plan further work is underway to continue to assess the state of the ecosystem and national implementation.</li> <li>• The CBMP endeavours to include TK holder expertise from the inception of projects to the analysis of information gained. It also seeks to include a diverse network of experts with both science and TK expertise.</li> </ul>	On track		CAN; USA	To be determined
CAFF	01.2 CBMP Freshwater Biodiversity Monitoring group	<ul style="list-style-type: none"> <li>•The Arctic Freshwater Biodiversity Monitoring Plan is one of four pan-Arctic biodiversity monitoring plans developed by the CBMP to improve the ability to detect and understand the causes of long-term change in the composition, structure and function of Arctic ecosystems. Since the delivery of the freshwater plan further work is underway to continue to assess the state of the ecosystem and national implementation.</li> <li>• The CBMP endeavours to include TK holder expertise from the inception of projects to the analysis of information gained. It also seeks to include a diverse network of experts with both science and TK expertise.</li> </ul>	On track		CAN; SWE	State of the Arctic Freshwater Biodiversity Report (SAFBR)

CAFF	01.3 CBMP Terrestrial Biodiversity Monitoring group	<ul style="list-style-type: none"> <li>The Arctic Terrestrial Biodiversity Monitoring Plan is one of four pan-Arctic biodiversity monitoring plans developed by the CBMP to improve the ability to detect and understand the causes of long-term change in the composition, structure and function of Arctic ecosystems. Since the delivery of the terrestrial plan further work is underway to continue to assess the state of the ecosystem and national implementation.</li> <li>The CBMP endeavours to include TK holder expertise from the inception of projects to the analysis of information gained. It also seeks to include a diverse network of experts with both science and TK expertise.</li> </ul>	On track		ICE; SWE	State of the Arctic Terrestrial Biodiversity Report (START)
CAFF	01.4 CBMP Coastal Biodiversity Monitoring Plan	<ul style="list-style-type: none"> <li>The Arctic Coastal Biodiversity Monitoring Plan is the final of four pan-Arctic biodiversity monitoring plans being developed by the CBMP to improve the ability to detect and understand the causes of long-term change in the composition, structure and function of Arctic ecosystems.</li> <li>The CBMP endeavors to include TK holder expertise from the inception of projects to the analysis of information gained. It also seeks to include a diverse network of experts with both science and TK expertise.</li> </ul>	On track		CAN; USA	Arctic Coastal Biodiversity Monitoring Plan
CAFF	01.5 CBMP Indicators	<ul style="list-style-type: none"> <li>The CBMP has chosen a suite of indices and indicators that provide a comprehensive picture of the state of Arctic biodiversity – from species to habitats to ecosystem processes to ecological services. These are being developed through expert consultation processes.</li> <li>The CBMP endeavors to include TK holder expertise from the inception of projects to the analysis of information gained. It also seeks to include a diverse network of experts with both science and TK expertise.</li> </ul>	On track			CBMP headline indicators: Audit of global goose populations
CAFF	06. Actions for Arctic Biodiversity 2013-2021: Implementing the recommendations of the Arctic Biodiversity Assessment	<p>Actions for Biodiversity 2013-2021: implementing the recommendations of the Arctic Biodiversity Assessment, is the implementation plan for the Arctic Biodiversity Assessment's 17 recommendations. It is a living document that will be reviewed and updated every two years. The plan is not meant to be exhaustive or to replace working group work plans; rather it is complementary, emphasizing specific actions that address the ABA recommendation.</p> <p>Actions for Biodiversity 2013-2021: implementing the recommendations of the Arctic Biodiversity Assessment, is the implementation plan for the Arctic Biodiversity Assessment's 17 recommendations. The Arctic Council Ministers agreed to implement the 17 recommendations articulated in the Arctic Biodiversity Assessment: Report for Policy Makers. Implementing the Arctic Biodiversity Assessment (ABA) recommendations requires a combination of building on existing efforts and embarking in new directions.</p>	On track		USA	Progress report on implementation
CAFF	07. The Arctic Migratory Birds Initiative	<ul style="list-style-type: none"> <li>The Arctic Migratory Birds Initiative is an Arctic Council priority project</li> <li>The project's objective is to improve conservation outcomes for arctic-breeding migratory birds by addressing conservation issues throughout their migratory range.</li> <li>Focus is on three conservation issues: 1. Habitat destruction/degradation; 2. Unsustainable harvest; 3. Bycatch</li> <li>Actual work will be undertaken on a flyway basis, with priority issues identified on each flyway.</li> </ul>	On track	Project depends on continued engagement with Observers. SAO support of this cooperation appreciated.	CAN; NOR; RUS; USA	AMBI 2013-2019 workplan and plans for next steps
CAFF	08. Seabird program	<ul style="list-style-type: none"> <li>The Seabird program promotes, facilitates, and coordinates conservation, management and research activities among circumpolar countries and improves communication between seabird scientists and managers inside and outside the Arctic.</li> <li>Key activities include work to monitor and assess seabirds (e.g., survival, diets, phenology, and productivity) to explain observed changes in populations as well as provide circumpolar information on the status of seabirds to management agencies in Arctic States.</li> </ul>	On track		FIN	To be determined
CAFF	11. Arctic Biodiversity Data Service (CAFF)	<ul style="list-style-type: none"> <li>Develop an online mechanism to house, collect, display and search for Arctic biodiversity related data, maps and graphics for decision making.</li> </ul>	On track			Progress report
CAFF	12. Capacity Building	CAFF has developed "educational tool kits" that communicate information to school children in the Arctic (10- 11 years old) about key Arctic ecosystems and processes.	On track			Progress report with specific deliverables to be determined
CAFF	13. Mainstreaming	<p>The purpose of this project is to implement the following recommendation from the Arctic Biodiversity Assessment: "Mainstreaming biodiversity 4. Require the incorporation of biodiversity objectives and provisions into all Arctic Council work and encourage the same for on-going and future international standards, agreements, plans, operations and/ or other tools specific to development in the Arctic." Implementation of this recommendation requires establishing a clear framework that defines and develops:</p> <ul style="list-style-type: none"> <li>biodiversity objectives and provisions (also referred to here as biodiversity principles) in the Arctic context;</li> <li>Practical approaches and tools for incorporating biodiversity principles into Arctic Council work and for broader application as outlined in ABA Recommendation 4.</li> <li>A mainstreaming case study to consider the incorporation of biodiversity provisions into the work of a select industry</li> <li>TEEB Study (Completed): A scoping study on ecosystem services and the application of a TEEB approach and methodology in the Arctic.</li> </ul>	On track		SWE	Report on Challenges to Mainstreaming Biodiversity in Arctic Mining

CAFF	15. Traditional Knowledge and CAFF	This progress report provides a brief progress report on how TK is being approached within CAFF.	On track		USA	Progress report
CAFF	16. Scoping for Resilience and Management of Arctic Wetlands	This initiative is focused on enhancing engagement in relation to the roles and functions of Arctic wetlands as a resource for humans and biodiversity, to support sustainable development and resilience in the Arctic. This first stage is focused on enhancing the state of knowledge on resilience and management of Arctic wetlands in response to global change, including changes in climate and land use, and identification of knowledge gaps and research needs concerning sustainable development policies. Stage 1 is comprised of four components: 1. Analysis of wetland inventories – current status and future priorities; 2. Scoping study of a) relevant scientific literature focused on both scientific and indigenous understanding; b) relevant grey literature focused on Traditional and local Knowledge developed by indigenous organisations, and c) relevant literature which documents Traditional and local knowledge. 3. Identification of key knowledge gaps and research needs. 4. Engagement of Arctic Indigenous Peoples regarding gaps and concerns. Some suggested ways of engagement include: a) a series of webinars to inform about the project and gain feedback; and an b) email and telephone based survey. Reporting is scheduled to be completed in March 2018 with the findings from stage 1 to be used in the design of subsequent stages.	On track	Progress report to inform agenda item on Resilience	SWE	Arctic Wetlands Inventory; Scoping study; identification of key gaps and concerns
CAFF	12.1 Inspiring Arctic Voices	CAFF is supporting two youth initiatives: 1) Arctic Youth Exchange, and 2) Arctic Youth Summit (to be held in association with the Arctic Biodiversity Congress)	On track		FIN; USA	Arctic Youth Summit statement, other deliverables TBD
CAFF	12.2 CAFF IASC Fellowship	As two international organizations based in Akureyri, Iceland, the Conservation of Flora and Fauna (CAFF, www.caff.is) and the International Arctic Science Committee (IASC, www.iasc.info), would team up to help early career scientists (two fellows) get more involved in the process of taking research from results through to science policy recommendations. Potential fellows have been asked to identify a joint area of interest and expertise, participate in and contribute to CAFF's work, and produce a culminating output. Activities include following the process of a scientific assessment, contributing to teleconferences & workshops, attending appropriate meetings and the Arctic Biodiversity Congress, and producing peer reviewed/CAFF documents.	On track		SWE	Results of CAFF-IASC Fellowship
CAFF	Resilience & Management of Arctic Wetlands	CAFF is undertaking an initiative on enhancing engagement in relation to the roles and functions of Arctic wetlands as a resource to support sustainable development and resilience in Arctic biodiversity, ecosystem services, and the livelihood of indigenous and local peoples. The effects of climate change on Arctic wetlands, their biodiversity and functioning are still little understood but can be expected to be considerable.  This project aims to strengthen engagement on the roles and functions of wetlands as a resource to support sustainable development and resilience in the Arctic. The overall project goal is to use insights from scientific analysis to produce recommendations to support policy development and further develop management strategies to conserve biodiversity and ecosystem services that wetlands provide.	On track		SWE	Scoping for Sustainable Management and Resilience of Arctic wetlands: Phase 1 report
CAFF	06.3 Traditional Knowledge and Wisdom: Changes in the North American Arctic	This report is a compendium of Arctic Indigenous perspectives and understandings from indigenous authors, and others, on biodiversity change in the Arctic and examples of the use of TK&W in managing fish, wildlife, and habitat.	To be archived		CAN; AIA	
EPPR	16. Conditions on Oil Spill Circumpolar Response Viability Analysis	The COSRVA was approved by Ministers in Fairbanks and has the goal of providing more science-based decision-making in Arctic oil spill response contingency planning. An additional benefit of the study is the identification of components or methods used in response countermeasures that could be optimized through additional research and development.	Completed		KOD; NOR; USA	
EPPR	18. International Standards for Petroleum, Offshore Oil and Maritime Industries	The purpose of the work is to describe how necessary engineering and technical standards are identified, developed, established and maintained. Further to describe the work done by various international trade groups and standards organizations who participate in the various phases of the work. The final report will be a useful knowledge base for improved understanding on the development and maintenance of standards in the Arctic to prevent potential accidents with subsequent oil pollution from offshore petroleum and maritime activities.	Completed		NOR	
EPPR	19. Update of Field Guide for Oil Spill Response in Arctic Waters	The United States agreed to submit a project proposal to develop education tools to facilitate the use of the Field Guide in small communities, for interseasonal approval. There are strong links to the EPPR Small Communities project that will be taken into consideration.	Completed		USA	
EPPR	01. Arctic Rescue	The focus of this project is to elaborate best practices, recommendations and key elements of the emergency risk assessment system and the system for improving safety of potentially hazardous facilities.	On track		RUS	
EPPR	02. Development of Safety Systems in Implementation of Economic and Infrastructure Projects	Improvement of industrial and environmental safety related to economic and infrastructural projects (primarily development of hydrocarbons on the Arctic continental shelf and hydrocarbons transportation)	On track		NOR; RUS	

EPPR	08. Maintain and update the operational guidelines attached to the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response	Maintain and update the operational guidelines as required	On track	The Operational Guidelines were updated based on the MOSPA 2018 Exercise organized under the leadership of the Finnish Chairmanship. The Parties to the MOPSA have been informed of updates to forms and contact information. The MER EG is now developing exercise planning guidance to facilitate future planning of exercises. This is expected to be approved by EPPR in December 2018.	CAN; USA	1) MOSPA 2018 After Action Report ; 2) Exercise Planning Guide
EPPR	09. Coordination and practical implementation of the SAR agreement (SAR Expert Group)	In March 2015, SAOs expanded EPPR's mandate to include search and rescue (SAR) including followup to the SAR Agreement. In June 2017, EPPR approved the mandate of the SAR Expert Group.	On track		FIN; NOR	
EPPR	12. Prevention, Preparedness and Response for small communities	Three deliverables were approved by Ministers in May 2017, an interactive map displaying the data from the survey tool, a database of survey responses, and a resource guide in the form of a short brochure to share with small communities. The second phase of the project was approved. A series of short videos to communicate the results of Phase I is under production.	On track		CAN; KOD; NOR; USA; AIA	5 Awareness videos.
EPPR	14. Development of a Database of Arctic Response Assets	The project created a stand-alone, searchable database of major response assets in the Arctic. In June 2017, EPPR discussed next steps and agreed: to assess the database for use in country contingency planning and emergency response purposes, to use the database during future MOSPA exercises to test viability in requests for assistance, that the MER EG and SAR EG work together to explore options towards updating the database, including the possibility of migrating it to a live agreed upon platform. At the EPPR II meeting in 2018 in NOLA, the WG decided to remove the topic from future EPPR agendas, but that the MER EG will review the subject every two years, in this case December 2020 or as appropriate.	On track		USA	
EPPR	15. ARCSAFE	(Full title: EPPR Cross Country Cooperation Network to Improve Emergency Prevention, Response and the Safety of Rescue Workers in Case of a Maritime Accident Involving a Potential Release of Radioactive Substances in the Arctic ARCSAFE is a radiological project promoting cross-border prevention, preparedness and handling of maritime incidents or accidents which may involve a potential release of radioactive substances. Beneficiaries of project work include Arctic states' national eppr-agencies.	On track	The project group has discussed the possibility of a future Arctic agreement on maritime radiological/nuclear cooperation. There was general agreement at EPPR that this was a good idea, but delegations had differing views on what an agreement may contain. A cautious, step-wise approach was noted as the best way forward.	KOD; NOR; RUS; SWE; USA	ARCSAFE Summary Status Report
EPPR	17. Follow-up on the Framework Plan on Oil Pollution Prevention	At the SAO meeting in Anchorage (October 2015), it was agreed that EPPR has the lead on prevention, with PAME as co-lead. The report and matrix are regularly circulated to States, PPs, Working Groups, and other relevant bodies.	On track		CAN; NOR	2019 Report on the Status of Implementation of the FPOPP
EPPR	20. Compendium of Arctic Ship Accidents (CASA)	This is a PAME-EPPR collaboration to update incident information contained in the AMSA Report, with input from Arctic States, to develop a new database call the Compendium for Arctic Shipping Accidents (CASA). CASA will support and aid other EPPR projects by providing data to support risk analysis discussions and decision making.	On track		USA	
EPPR	21. EPPR 2019 Radiation Exercise	This table top exercise (TTX) will cover maritime radiological/nuclear scenario and include a search and rescue element. Coordination with the SAR EG is in place.	On track		NOR	
EPPR	22. Creating an EPPR Image Library	Develop a unique library of Arctic related oil spill response, SAR, and emergency management graphics and photos accessible by EPPR members for use internally or for outreach materials. The desired outcome is to have images that are free from copyright issues, represent a broad array of subjects and are managed under a set of agreed upon usage guidelines by EPPR.	On track		USA	EPPR Image Library
EPPR	23. Review of legal challenges related to the MOSPA Agreement	The project seeks to clarify legal liability issues (responder and requesting state) in relation to the MOSPA Agreement. Expected outcomes include a project report and, if necessary, recommendation on additions or clarifications to the MOSPA Agreement to mitigate uncertain legal provisions or risk. Topics include legal challenges that are general to international assistance and cooperation in case of pollution response operations.	On track		NOR; USA	Summary report.
EPPR	24. Risk Assessment methods and metadata - development of guideline and tool	In moving towards a circumpolar marine environmental risk assessment (responding to Objective 3.1.2 in the FPOPP) it was agreed after a workshop in Ålesund (November 2017) that a step-wise approach was the best was forward. To that end, this project will develop a guideline and toolbox. Full participation by Arctic States, PPs, and relevant stakeholder is encouraged.	On track		NOR	

EPPR	25. Circumpolar Oil Spill Response Viability Analysis - Phase 2 (COSRVA 2)	Since the approval of the COSRVA (Fairbanks 2017) new and improved metocean data has been made available, and these should be implemented to eliminate the reported shortcomings in the previous data. The results of the analysis will be implemented in a web-based GIS tool, which will include several additional features.	On track		NOR	
EPPR	RADSAR - Sharing of competence with SAR in a maritime radiological/nuclear (RN) scenario	A sub-project of ARCSAFE. The project will seek to enhance the focus on maritime SAR operation in a possible radio-nuclear scenario. The project will gather information from Rescue Coordination Centers (RCCs) including training, equipment and information flow between SAR organization and RN specialists needed to sustain the specific level of operational capacity.	On track		FIN; NOR	
Expert Group	Expert Group in support of implementation of the Framework for Action on Black Carbon and Methane	The Expert Group was established at the Arctic Council Ministerial Meeting in Iqaluit 24 April 2015. The objective of the 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, on a once every two-year cycle to the Arctic Council Ministerial meeting, a high level "Summary of Progress and Recommendations" report, with appropriate conclusions and recommendations.	On track		FIN	The EGBCM will submit its 2nd Summary Report to the Arctic Council Ministerial meeting in 2019.
PAME	26. Adaptation Actions for a Changing Arctic (AACA) part c	Provide input for AACA part C to AMAP as required and incorporated into a implementation plan/follow-up matrix that is being developed for the Arctic Ocean Review recommendations as it relates to PAME's mandate.	Awaiting Info			
PAME	08. AMSA II(F) - Oil Spill Prevention	Contribute to the TFOPP implementation matrix as it relates to PAME's work.	Completed		CAN; FIN; ICE; NOR; RUS; SWE; USA; KOD	
PAME	12. AMSA III(D) – Investing in Hydrographic, Meteorological and Oceanographic Data	The USA undertook an informal review of the 1st World Ocean Assessment, giving particular consideration to those chapters relating to shipping in the Arctic and current and proposed PAME work on shipping-related issues, and provided a report to the Shipping Expert Group at PAME II-2016.	Completed		USA	
PAME	14. AMSA implementation progress report	PAME provides biennial AMSA shipping progress implementation reports for submission to AC Ministerial meetings. This report addresses work pursuant to other Arctic Council shipping mandates and recommendations.	Completed	PAME is in the process of updating its shipping priorities and recommendations and a draft matrix has been developed for this purpose and is currently being reviewed by PAME and other Arctic Council Subsidiary Bodies.	CAN; USA	No deliverable.
PAME	01. Arctic Marine Shipping Assessment I (A) (AMSA) – Linking with International Organizations	<p>Continue to monitor and identify opportunities to engage with international organizations (IMU, ISU, IALA, WMO etc) to advance implementation of AMSA recommendations</p> <p>---  PAME in cooperation with the IMO and World Maritime University (WMO) convened an International Conference on Safe and Sustainable Shipping in a Changing Arctic Environment (ShipArc 2015) 25-28 August 2015 in Malmö, Sweden. Additions to be made following PAME II-2016.</p> <p>PAME I-2017:  - A representative from the Federal Maritime and Hydrographic Agency of Germany presented on behalf of the WMO-IOC Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM) Expert Team on Sea Ice (ETSI) on ETSI's Arctic-related activities at PAME I-2017.  - A representative from the Danish Shipowners' Association presented on their priorities with respect to Arctic shipping operations at PAME I-2017.  - A representative from the Danish Ministry of Defence presented on the assessment report regarding "Marine Environmental Risk – Concerning Waters In And Adjacent To Greenland And The Arctic," at PAME I-2017.  - A representative from Italy made a presentation on their Arctic interest, in particular with respect to shipping activities, at PAME I-2017.  - A representative from the Danish Maritime Authority presented on the ArcticWeb project to the Shipping Expert Group at PAME I-2017.  - A representative from OSPAR presented on their Offshore Industry Committee and Environmental Impacts of Human Activities Committee work at PAME I-2017. PAME noted the synergies between OSPAR and PAME on issues concerning offshore oil and gas, offshore renewable energy, and marine noise, and encouraged the exploration of possible future cooperation, as appropriate.</p> <p>PAME II-2017:  - A representative from the International Council on Clean Transportation (ICCT) made a presentation at PAME II-2017 relating to the use and carriage of HFO by ships in the Arctic as it pertains to the HFO projects in PAME's 2017-2019 Work Plan.  - A representative from the Finnish Maritime Environment Tri-authority Operations (METO) made a presentation at PAME II-2017 regarding the Finnish METO maritime cooperation on the maritime surveillance systems, communication means and risk analyses methods to produce a common maritime situational awareness in a cost effective way.  - A representative from the Finnish Shipowners' Association made a presentation at PAME II-2017 on Arctic shipping.  - A representative from Germany made a presentation on their Arctic interests at PAME II-2017</p> <p>PAME I-2018:  PAME had presentations from:  - Chair of the International Working Group of the Comité Maritime International  - Executive Director of the St. Lawrence Shippers  - Director of Expedition Operations, EYOS Expeditions  - A representative from the scientific steering committee of the International Quiet Ocean Experiment (IQOE) Working Group on Arctic Acoustic Environments on anthropogenic underwater noise in the Arctic and its impact on living marine resources.</p> <p>PAME II-2018  PAME has approved to develop a non-binding Memorandum of Understanding (MoU) with the Arctic Regional Hydrographic Commission (ARHC) subject to concurrence by the SACs. PAME notes that the ARHC at its 8th Conference in September 2018 (Svalbard, Norway) expressed its desire to develop such an MoU with PAME.</p>	On track	PAME is in the process of drafting an MoU with the Arctic Regional Hydrographic Commission (ARHC).	USA	

PAME	02. Arctic Shipping Best Practice Information Forum	<p>The establishment of the Arctic Shipping Best Practices Information Forum is in response to the newly adopted International Code for Ships Operating in Polar Waters (Polar Code) by the International Maritime Organization (IMO).</p> <p>The aim of the Forum is to raise awareness of its provisions amongst all those involved in or potentially affected by Arctic marine operations and to facilitate the exchange of information and best practices between the Forum members on specific shipping topics, including but not limited to; hydrography, search and rescue logistics, industry guidelines and ship equipment, systems and structure. A publicly accessible web-portal will be created with information specific to each topic.PAME II-2017: PAME approved the Arctic Shipping Best Practice Information Forum's Terms of Reference (ToR) as amended at this meeting and invites comments by 15 November from PAME members on the Forum's draft Methods of Operations, Communications and Outreach Strategy, and Eligibility Criteria for Information to be Posted to the Web Portal.</p> <p>PAME I-2018: PAME approves the Arctic Shipping Best Practice Information Forum's Methods of Operations and Eligibility Criteria for Information to be posted to the Web Portal. In addition, PAME invites Forum participants to submit information relevant to the implementation of the Polar Code for posting to the Forum's web portal as soon as possible to facilitate the proposed launch of that web portal in May 2018. PAME notes that the next Forum meeting is scheduled in conjunction with the 99th Session of the IMO Maritime Safety Committee (MSC) meeting, 14-15 May 2018.</p> <p>PAME II-2018 PAME has launched the Forum's web-portal (<a href="http://www.arcticshippingforum.is">www.arcticshippingforum.is</a>). It plans to convene the third meeting in 2019.</p> <p>PAME I-2019: The Forum's third meeting will be held in London, UK on 3-4 June 2019.</p>	On track	<p>The Forum launched its web-portal in May 2018 - <a href="http://www.arcticshippingforum.is">www.arcticshippingforum.is</a></p> <p>The Forum's third meeting will be held in London, UK on 3-4 June 2019. PAME welcomes the Forum's progress and its collaborative approach to increasing awareness and availability of authoritative information critical to effective implementation of the Polar Code.</p>	CAN; FIN; USA	Arctic Shipping Best Practice Information Forum status report, and the Forum's Web-portal - <a href="http://arcticshippingforum.is">arcticshippingforum.is</a>
PAME	03. AMSA I(B) – IMO Measures for Arctic Shipping	Four Heavy Fuel Oil (HFO) projects identified in the 2017-2019 PAME Work Plan.HFO Phase IV (a) – Collect and Report on Information on use of H	On track	The final report of Explore the Environmental, Economic, Technical and Practical Aspects of the use by Ships in the Arctic of Alternative Fuels will be a ministerial deliverable.	CAN; FIN; ICE; KOD; NOR; RUS; SWE; USA	Report on the environmental, economic, technical and practical aspects of the use by ships in the Arctic of alternative fuels
PAME	03. AMSA I(C) - Uniformity of Arctic Shipping Governance	<p>PAME has approved a project to collect and summarize information on Arctic State safe and low-impact marine corridor initiatives and programs with a view to submitting a report by PAME I- 2019. Canada, Iceland and AIA co-lead the project.</p> <p>PAME invites Arctic States and Observer States to submit to PAME I -2018 information on low impact shipping corridors or other comparable ship traffic schemes.</p> <p>PAME I-2018: PAME approves the joint project with EPPR on Safe and Low Impact Shipping Corridors proposal and welcomes PAME members to identify a point of contact to the project leads by March 15th 2018.</p> <p>PAME II-2018 A final report will be sent to PAME I-2019.</p>	On track	New project on Safe and Low Impact Shipping Corridors in progress.	CAN; ICE; AIA	Safe and Low Impact Shipping Corridor: Project report.
PAME	04. AMSA I(D) – Strengthen Passenger Ship Safety in Arctic Waters	<p>Follow-up to the Arctic Marine Tourism Project released a best Practice Guidelines document in April 2015. Canada,, U.S. and Norway provided a paper to PAME II-2016 "Summary paper identifying potential specific Arctic Marine Tourism Project (AMTP) follow-up activities."</p> <p>A representative from EYOS Expeditions will be invited to make a presentation at PAME I-2018 on safe and environmentally sound navigation in the Arctic of non-commercial yachts and pleasure craft and to identify areas of potential collaboration with PAME on such issues.</p>	On track	Continued communication on passenger ship safety in the Arctic.	CAN; NOR; USA	
PAME	05. AMSA II(A) – Survey of Arctic Indigenous Marine Use	In 2013 the AIA began work on the first phase of a three phase project on building an Arctic marine subsistence use mapping tool which will allow communities to produce scientifically justifiable maps of their subsistence use in the marine environment. The project has since evolved and now includes the Korean Maritime Institute as its partners. AIA had noted interest in additional partners to allow the project to move forward in additional communities.	On track	Refer to AIA.	AIA	Refer to AIA.

PAME	06. AMSA II(D) – Specially Designated Arctic Marine Areas	<p>- Taking into account the AMSA II(C) Report and the two Arctic high seas EBSAs identified by the Convention on Biodiversity, invited AMAP and CAFF to denote areas within the high seas area of the Central Arctic Ocean that are particularly vulnerable to shipping. Once that information is received from AMAP and CAFF, PAME will further explore possible international protection measures that could be pursued by Arctic States, individually or collectively, at the IMO.</p> <p>- Development of Arctic Regional Reception Facilities Plan (RRFP) as a long-term solution to help meet the challenges posed by the expected increases in Arctic shipping activities. The aim is to allow for the environmentally sound management of ship waste and ensure that ships can comply with MARPOL requirements for the proper disposal of ship generated waste. This project does not attempt to circumvent or supplant any work by the IMO or other international body with recognized competence, and is in keeping with established principles and existing IMO/MARPOL guidance. It will complement work being undertaken by IMO. Continued work of the Regional Reception Facilities (RRF) Expert Group (EG) in consideration and input into the ongoing work of the RRF-EG is encouraged from all Arctic States, Permanent Participants and Observers. A final paper will be submitted to IMO in January 2018.</p> <p>- The ICES/PAME Working Group on Integrated Ecosystem Assessment for the Central Arctic Ocean (WGICA) will have as one of the items of work to consider vulnerability of the ecosystem of the Central Arctic Ocean in relation to climate change and Arctic shipping, and welcomes progress report on that work at future meetings.</p> <p>PAME I-2018: PAME invites member government IMO contact points to continue to work intersessionally to follow up on MEPC 72/16 Regional Reception Facilities Plan (RRFP) – Outline and Planning Guide for the Arctic. PAME invites Observers that are members of or have consultative status in the IMO to consider document MEPC 72/16 and voice their support as appropriate. PAME invites Arctic States to review and update the IMO's GIS Database with respect to information on their Arctic port reception facilities.</p> <p>PAME II-2018 Follow-up to the RRFP is ongoing. The Member States are to provide confirmation of co-sponsorship of a joint submission on this RRFP at MEPC 74.</p>	On track	Member States plan co-sponsorship of a joint submission on Regional Reception Facilities Plan at MEPC 74.	RUS; USA	
PAME	07. AMSA II(E) - Protection from Invasive Species	<p>The Arctic Invasive Alien Species (ARIAS) Strategy and Action Plan, produced by CAFF and the Protection of the Arctic Marine Environment (PAME) was delivered to the May 2017 Arctic Council Ministerial. It sets forth the priority actions that the Arctic Council and its partners are encouraged to take to protect the Arctic region from a significant threat: the adverse impacts of invasive alien species. These priority actions span terrestrial, aquatic, and marine ecosystems.</p> <p>To ensure effective use of resources and avoid duplication of efforts, PAME is working with CAFF on the marine invasive alien species components as a contribution to the development of the ARIAS Implementation Plan.</p>	On track	<p>PAME has invited one or more Arctic States to volunteer to lead/co-lead a project related to ballast water and/or bio-fouling to advance implementation of the Arctic Invasive Alien Species Strategy and Action Plan (ARIAS) Strategy and Action Plan.</p> <p>Invasive Alien Species will become a standalone agenda item in future meetings, acknowledging that its pertinence to the marine environment has expanded beyond shipping.</p> <p>A Coastal Monitoring of Arctic Invasive Alien Species draft report has been produced. It will be reviewed by CAFF and PAME in the Spring of 2018.</p> <p>PAME has agreed to CAFF's proposal to form a Joint Coordination Group to guide implementation of ARIAS and provide recommendations to the CAFF and PAME Working Groups regarding potential implementation actions and progress on activities, and will submit a name for PAME representative to co-chair the Joint Coordination Group by March 8th 2018.</p>	CAN; FIN; ICE; NOR; RUS; SWE; USA; KOD	Coastal Monitoring of Arctic Marine Invasive Alien Species Report. ARIAS Implementation Plan and status report.
PAME	09. AMSA II(G) – Address impacts on Marine Mammals	<p>PAME I-2018: PAME has approved the Canada/WWF proposal: Underwater Noise in the Arctic State of Knowledge Report. PAME welcomes OSPAR's offer to co-lead the project and invites PAME members to identify project points of contact by 15 March 2018. PAME also invites the project co-leads to identify and recommend next steps in the final report. REDEG expressed interest in contributing to the project.</p> <p>PAME II-2018 A final draft will be submitted to PAME I-2019.</p> <p>PAME I-2019: The Underwater Noise in the Arctic: A State of knowledge report (Canada/WWF) will be a PAME ministerial deliverable.</p>	On track	Canada will co-lead with WWF on the development of the State of the Knowledge report on underwater noise. A representative of the International Quiet Ocean Experiment Working Group on Arctic Acoustic Environments will be invited to make a presentation at PAME I-2018 on anthropogenic underwater noise in the Arctic and its impact on living marine resources.	CAN	Underwater Noise in the Arctic: A State of knowledge report

PAME	10. AMSA II(H) – Reduce Air Emissions	<p>PAMEs Shipping Expert Group (SEG) continues to receive updates on IMO’s work with respect to black carbon and explore how best it could use information it compiles on emissions (especially black carbon) from ships in the Arctic and their effects on the marine environment.</p> <p>PAME continues to invite Arctic stakeholders to augment the consolidated bibliography of ship air emission publications posted to the PAME website.</p> <p>PAME I-2019: The project Black Carbon emissions from shipping activity in the Arctic and technology developments for reduction (Lead: Iceland, co-lead: Finland) will be included in PAME’s 2019-2021 Work Plan.</p>	On track		NOR; USA	
PAME	11. AMSA III(A) – Address the infrastructure Deficit	<p>PAME I-2019: PAME welcomes the decision by all Arctic States to co-sponsor the draft paper related to Regional Reception Facilities project titled “Proposal for a new output to amend MARPOL to allow the establishment of regional arrangements in the Arctic” for submission by the Russian Federation to the 74th Session of IMO’s Marine Environment Protection Committee (MEPC) (13-17 May 2019). PAME invites Observer States to support the paper at MEPC 74.</p>	On track		USA	Proposal for a new output to amend MARPOL to allow the establishment of regional arrangements in the Arctic for joint submission by all Arctic States to the 74th Session of IMO’s Marine Environment Protection Committee (MEPC) (13-17 May 2019)
PAME	12. AMSA III(B) – Arctic Marine Traffic Systems	<p>PAME currently has two projects under this section:</p> <p>1. Operationalization of the Arctic Shipping Traffic Database (ASTD) System, including the construction by 2018 and subsequent operation, administration and management of a data repository hosted by the Norwegian Coastal Administration as set forth in the ASTD Cooperative Framework.</p> <p>The database was launched in February 2019.</p> <p>2. A PAME/EPPR project: Compendium of Arctic Ship Accidents (CASA) project. States have provided information and data in accidents in the Arctic. Data to be compiled in 2019.</p>	On track	<p>ASTD: - The ASTD Database was officially launched at the PAME I meeting in February 2019.</p> <p>CASA: - The information will be combined to the ASTD database.</p>	USA	Arctic Ship Traffic Data Project Status Report, Database and Press Release (USA)
PAME	16. Meaningful Engagement of Arctic Indigenous Peoples and Local Communities in Marine Activities (MEMA)	<p>MEMA Part II will review and analyze the existing guidance and requirements in the region for engagement of indigenous peoples and local communities in marine activities to inform the Arctic Council on whether more or consolidated recommendations need to be made.</p> <p>PAME I-2018: PAME notes the update and presentation of the Meaningful Engagement of Indigenous Peoples and Communities in Marine Activities project (MEMA) Part II. Project co-leads have significantly expanded the database, and presented a preliminary timeline and table of contents for the final report.</p> <p>PAME II-2018 The MEMA database (memadatabase.is) was presented at this meeting.</p>	On track		CAN; USA; AIA; ICC; Saami Council	Meaningful Engagement of Indigenous Peoples and Local Communities in Marine Activities (MEMA) Part II Findings for Policy Makers (full report) (Canada/USA) (for approval by SAOs and Ministers)

PAME	17. Updates of the AOOGG 2009 and Response to AMSP Strategic Actions and TFOPP Framework	<p>PAME I-2019: PAME takes note of the results of the survey on possible updates to the AOOGG (2009) and requests the Resource Exploration and Development expert group (REDEG) to prepare a project proposal calling for an update/status report on Arctic state activities related to offshore oil and gas for intersessional endorsement in the PAME 2019-2021 Work Plan.</p> <p>The aim of the update/status report is to describe current offshore oil and gas activities of the Arctic states based on states' submissions of information describing, for example, the current state of offshore oil and gas activities, relevant legislation, regulations and practices. To this end, REDEG will develop a template to facilitate states' submissions.</p>	On track	<p>PAME Chair requests that REDEG co-chairs consult with EPPR on the progress with the online survey on implementing recommendations of the System Safety Management and Safety Culture Report.</p> <p>PAME I-2018: A representative from the International Seabed Authority (ISA) presented at the meeting. PAME notes the relevance of the evolving work of the ISA in particular the development of Regional Environmental Management Plans (REMP) and draft regulations on exploitation of mineral resources in the Area.</p> <p>PAME intends to continue to focus on information gathering including future presentations on offshore renewable energy, noise from activities, and mining activities that can affect the marine environment, to inform possible future work.</p> <p>Finland presented an update on the Arctic EIA project and looks forward to receiving EIA workshop outcomes. REDEG noted the importance of involving indigenous peoples early in the process, developing trust, and building relationships for successful and meaningful engagement.</p>	CAN; USA	
PAME	18. Arctic Offshore Oil and Gas Regulatory Resource (AOOGRR)	Ongoing / Website (was launched in May 2013 and provides indexed access to information and data on national entities and agencies websites related to management, regulation, and enforcement of Arctic offshore oil and gas activities. (online May 2013) / Annual spring updates	On track	PAME is requested to review and update their links in the Arctic Offshore Oil and Gas Regulators Resource (AOOGRR) in advance of PAME I-2018.	CAN; USA	
PAME	19. Arctic Ocean Review follow-up	Follow up to the AOR Final Report recommendations has been incorporated into the AMSP 2015-2025 and other PAME activities, as relevant.	On track	AOR recommendations have been incorporated into the follow-up process of other PAME activities, as relevant.	CAN; NOR; USA	
PAME	20. Implementation of the Arctic Council Marine Strategic Plan (AMSP 2015-2025)	<p>The Arctic Council's Arctic Marine Strategic Plan 2015-2025 (AMSP) provides a framework to guide its actions to protect Arctic marine and coastal ecosystems and to promote sustainable development.</p> <p>The AMSP articulates how the Arctic Council can increase its understanding of the impacts of human activities, climate change and ocean acidification. The AMSP recognizes the importance of acquiring a better understanding of Arctic change so that actions can be taken that allow Arctic inhabitants, including Arctic indigenous peoples to further adapt to the change. The strategic actions identified in the AMSP will guide the work of the Arctic Council and its subsidiary bodies in the coming decade.</p>	On track		CAN; NOR; USA	2nd AMSP Progress report

PAME	22. Ecosystem Approach to Management	<p>Two projects are under development:</p> <p>1. Preparation of Guidelines for EA/EBM Implementation in the Arctic (Lead: Norway, United States, Joint EA Expert Group). Goal of Guidelines: to assist scientists, policy-makers, managers and communities in implementing an ecosystem approach for Arctic marine ecosystems.</p> <p>2. Integrated Ecosystem Assessment of the Central Arctic Ocean (Lead: ICES/PICES/PAME)</p> <p>Projects included in PAME's 2019-2021 Work Plan:</p> <p>1: Convening of the 2nd International Science and Policy Conference on Implementation of the Ecosystem Approach to Management in the Arctic in Bergen, Norway 2019 (Leads: Norway/USA in close collaboration with the EA expert group)</p> <p>2: Convening of the 7th EA Workshop in 2020 with a focus on element No. 5 of the EA framework: Value the cultural, social, and economic goods and services produced by the ecosystems (Leads: Norway/USA in close collaboration with the EA expert group)</p> <p>3. Report on development in defining or setting Ecological Objectives (Leads: Norway/USA in close collaboration with the EA expert group).</p> <p>4. Integrated Ecosystem Assessment (IEA) of the Central Arctic Ocean (ongoing cross-cutting initiative in cooperation with ICES, PICES and the EA expert group).</p>	On track		NOR; USA	Guidelines for Implementing an Ecosystem Approach to Management of Arctic Marine Ecosystems; EA Progress report; the Integrated Ecosystem Assessment Report for the Central Arctic Ocean, pending its completion.
PAME	23. Marine Protected Areas (MPA)	Enhance PAME's work on a Pan-Arctic Network of Marine Protected Areas and contributes to some of the near-term actions listed in the Framework for a Pan-Arctic Network of MPAs (near-term actions number 3, 4, 6, 7 and 9). (AMSP strategic action 7.2.10).	On track	4th MPA workshop planned in March 2019.	USA	
PAME	25. Follow-up of the Arctic Biodiversity Assessment	Follow up on ABA recommendations as appropriate to PAME mandate has been incorporated into the AMSP 2015-2025.	On track			Refer to CAFF
PAME	27. Desktop Study on Marine Litter, including Microplastics, in the Arctic	<p>Conduct a Desktop Study on Marine litter including microplastics in the Arctic to evaluate the scope of knowledge on marine litter in the Arctic, and its effects on the marine environment. Based on its outcomes, explore whether there is a need for a Regional Action Plan on Marine Litter (possible Phase II for the period 2019-2021).</p> <p>Phase II has been approved; Regional Action Plan on Marine Litter in the Arctic (co-leads: Canada, Kingdom of Denmark, Finland, Iceland, Norway, Sweden, USA, AIA, OSPAR)</p>	On track	<p>The OSPAR Commission has become the 5th co-lead in this project. A marine litter expert group has been created. Literature gathering is underway. 1st outline of the study has been developed.</p> <p>The projects co-leads work closely with other Arctic Council working groups, in particular ACAP, AMAP, CAFF, and SDWG and encourages active engagement with relevant experts, observers and international organizations.</p>	CAN; FIN; ICE; KOD; NOR; SWE; USA; AIA	Desktop Study on Marine Litter, including Microplastics, in the Arctic.
PAME	Engagement of Observer States in PAME's shipping-related activities	Develop an approach/framework for more systematically engaging with Observer States on PAME's shipping-related work, and identify opportunities for Observer States to contribute to and/or support such work.	On track	A workshop is planned in London on 4 June 2019.	USA	
SDWG	02. Assessing, Monitoring and Promoting Arctic Indigenous Languages	<p>Building on the Inuit Circumpolar Council's 2008 SDWG work in the same area, a follow-up Arctic Indigenous Languages Assessment Symposium was held February 10-12, 2015 in Ottawa, with strong youth participation, to present the Project's findings and facilitate knowledge transmission.</p> <p>Other deliverables under the Canadian Chairmanship include a Symposium Report, for information only, as well as a Project status report on the activities for 2013-15. The Arctic languages website (<a href="http://www.arcticlanguages.com">http://www.arcticlanguages.com</a>) was launched in 2013 as an early project deliverable and features a large collection of electronic language learning tools as well as a repository of academic articles related to Arctic indigenous languages. Follow-on activities under consideration.</p>	Completed			None
SDWG	06. Gender and Equity in the Arctic	Builds on the 2002 Taking Wing conference on gender equality and women in the Arctic.. The Akureyri, Iceland conference held in October 2014 focused on the living conditions of men and women throughout the circumpolar North; addressed key issues including access to and control over resources; representation in decision-making; political participation; regional development; human security; and material and cultural well-being. A follow-on project was completed during 2017-2019 and a new phase III project has been endorsed for 2019-2021.	On track	No SAO decisions required. SAOs request to note the establishment of a Gender Equality network established during 2017-2019.	FIN; ICE; SWE; AIA	Information Sheet: Gender Equality in the Arctic II; Website: <a href="https://arcticgenderequality.network/">https://arcticgenderequality.network/</a>

SDWG	09. Arctic Adaptation Exchange: Facilitating Adaptation to Climate Change	The Arctic Adaptation Exchange online portal builds on the ongoing adaptation work of the Arctic Council, notably the Adaptation Actions for a Changing Arctic project (AACA). The portal ( <a href="http://arcticadaptationexchange.com/">http://arcticadaptationexchange.com/</a> ) serves as a central information hub for communities, researchers, and decision-makers across a variety of sectors by bringing the Arctic Council's work on adaptation, along with other relevant resources, together in one place in support of information exchange and decision-making.	To be archived	SDWG support for this project has been discontinued due to lack of resources.		None
SDWG	11. Arctic Energy Summit, 2017	The Arctic Energy Summit was a three-day conference that took a comprehensive approach to Arctic energy including petroleum-related activities, renewable energy potential and projects, energy efficiency and remote energy systems. The Summit provided a forum to share best practices, emerging technology, innovation and policy issues. The 4th Arctic Energy Summit took place 18-20 September, 2017 in Finland. The project delivered its final report in February 2018.	Completed	Note AES 2017 Final Report: 2017 Arctic Energy Summit, Finland, Final Report (for information only)	FIN; ICE; RUS	Final report
SDWG	12. Arctic Remote Energy Networks Academy (ARENA)	ARENA seeks to increase human capacity, promote leadership, and deploy traditional and local knowledge through the creation of a knowledge exchange program emphasizing the development, operation, and management of remote energy networks (microgrids) incorporating renewable resources. ARENA combines online webinars, classroom, laboratory, and field study learning environments, drawing from best practices established through experiences of the people living and the organizations operating in the Arctic. Participants will bring back to their home areas knowledge, skills, and tools that facilitate integrating clean energy technologies in their communities and promote energy security and diversification, including completed feasibility studies.	Completed	The current project has been completed. ARENA proposes to continue with a multi-phased approach. A project proposal/plan is under development.	CAN; FIN; ICE; USA; AIA; GCI	Report: ARENA Final Report; Website: <a href="http://arena.alaska.edu/">http://arena.alaska.edu/</a> ; Webinars: <a href="http://arena.alaska.edu/2017-webinars/">http://arena.alaska.edu/2017-webinars/</a> ; Video: <a href="https://youtu.be/L0hTV EB6RYM">https://youtu.be/L0hTV EB6RYM</a>
SDWG	13. Arctic Indigenous Youth, Climate Change and Food Culture (EALLU)	This project seeks to maintain and further develop a sustainable and resilient reindeer husbandry in the Arctic in face of climate change and globalization, while working towards a vision of creating a better life for circumpolar reindeer herders. The project focuses on youth involvement and engagement, seminars and place-based workshops, local capacity building, summer/ winter schools, networking, as well as co-production of project outputs by youth. The first phase of the project was completed in May 2017. The current phase for 2017-2019 has been completed. A plan for the next phase 2019-2021 is under development.	On track	See the EALLU final report: EALLU - Arctic Indigenous Peoples' Food Systems: Youth, Knowledge & Change 2015-2019	CAN; NOR; RUS; USA; AIA; Saami Council	Report: EALLU - Arctic Indigenous Peoples' Food Systems: Youth, Knowledge & Change 2015-2019
SDWG	14. Improving Health through Safe and Affordable Access to Household Running Water and Sewer (WASH)	This project focused on water-related health challenges in Arctic and Sub-Arctic communities. The core scientific activity of this project is a survey by the Arctic Health Human Experts Group (AHHEG) of WASH infrastructure and the diseases related to insufficient household water quality or quantity. Key project activities included: an international WASH conference in April 2016 in Sisimiut, Greenland (complete); a WASH conference September 18-21, 2016 in Anchorage (WIHAH); an online survey that assessed the current state of WASH in the Arctic. TLK collaboration is integral to the project design. TLK holders' perspectives were sought on the workability of technologies in their communities.	To be archived		CAN; FIN; USA	None
SDWG	15. Operationalizing a One Health approach in the Arctic (One Health)	One Health is an approach to assess health issues at the interface between humans, animals, and ecosystems. This project seeks to forge co-equal, all-inclusive collaborations across multiple scientific disciplines and Arctic communities in order to enhance resiliency of the Arctic inhabitants through an enhanced understanding of climatic change impacts on health risks to people, animals, and the environment. The project includes TLK holders in the leadership team to develop strategy for implementing an Arctic One Health framework and in Table Top Exercises, as well as "on-the-ground" activities. The project moved to a second phase in period 2017-2019 and will continue in 2019-2021. A project plan for the Icelandic Chairmanship is under development	On track	See the project report: One Arctic – One Health Final Report (submitted 19 Feb 2019)	CAN; FIN; USA	Report: One Arctic – One Health Final Report
SDWG	16. Circumpolar Resilience, Engagement and Action Through Story (CREATeS)	This is a follow-on to the RISING SUN project (2015-2017) and other important work that SDWG has undertaken since 2009 in relation to suicide prevention. This work will continue under a new phase of work during the Icelandic chairmanship. A project plan is under development.	Completed	See the project report: Project CREATeS: Circumpolar Resilience, Engagement and Action Through Story	CAN; FIN; KOD; ICC	Final Report: Project CREATeS: Circumpolar Resilience, Engagement and Action Through Story
SDWG	17. The Economy of the North (ECONOR)	ECONOR III provides an updated overview of the economy, socio-economic living conditions and environmental issues in the circumpolar Arctic, as impacted by the global economy and climate change. This report follows upon ECONOR I, (2006) and ECONOR II (2008). The ECONOR projects harmonize socio-economic statistical data across national and regional borders. The ECONOR III project expresses the importance of TLK for understanding the characteristics of the economy of the north. Traditional and Local Knowledge is integrated in a chapter that describes traditional living, the subsistence activities and their relationship to the market economy. A project proposal for ECONOR IV is under development.	Completed	Note that a project proposal for ECONOR IV is under development.	CAN; NOR; USA; Saami Council	None

SDWG	18. The Arctic as a Food Producing Region	The project takes a multi-disciplinary approach in assessing the potential for increased production and added value of food from the Arctic, with the overarching aim of improving food security, and enhancing the social and economic conditions of Arctic communities. By focusing on biological (climate change), commercial (commercial resources, infrastructure and resource and industry policy), cultural (food traditions and organization of food chains) and market conditions (local, national and international), this project will identify potential pathways for Arctic food production and distribution. The aim is twofold: 1) to enhance commercial food production 'in the North and for the North' and 2) to develop North to South food production linkages.	Completed	See project report: The Arctic as a Food Producing Region Final Project Report  A follow-on project, Arctic Food Innovation Cluster, was endorsed by the SDWG at its meeting in Kemi, Finland 04-06 February 2019.	CAN; ICE; NOR; GCI; ICC	Report: The Arctic as a Food Producing Region Final Project Report
SDWG	19. Arctic Renewable Energy Atlas (AREA)	The online Arctic Renewable Energy Atlas (AREA) will be a central location to access information, case studies, and best practices in the Arctic region to facilitate implementation of renewable energy and energy efficiency projects. Information presented within the Atlas will fall into four categories: resource supply, demand, investment and capacity, and traditional and local knowledge. Taken together, AREA will foster knowledge exchange between Arctic residents and promote clean energy prospecting by internal and external investors.	Delayed		CAN; USA; GCI	none
SDWG	20. Gender Equality in the Arctic II (see Gender project above for update details)	The project promotes and expands the dialogue on Gender Equality in the Arctic region. Building on previous projects, initiatives and conferences, in particular the outcome and recommendations from the Conference – Gender Equality in the Arctic: Current Realities and Future Challenges, that was held in Akureyri in October 2014. The project aims to continue that work by establishing a formal network of experts in this field that will over the course of the next two years advance the work of the Arctic Council and the SDWG in this area.	On track	See: Information Sheet: Gender Equality in the Arctic II Website: <a href="https://arcticgenderequality.network/">https://arcticgenderequality.network/</a>	FIN; ICE; SWE; AIA; Saami Council	Information Sheet: Gender Equality in the Arctic II; Website: <a href="https://arcticgenderequality.network/">https://arcticgenderequality.network/</a>
SDWG	21. Arctic Generation 2030	The objective of this project is to forge a strong and globally connected community of future Arctic leaders through an investment in the human capital of the region with focus on training, networking, and partnerships led by the region's primary actors in education, research, public policy, and business. The main project will implement a series of collaborative activities between key actors in northern business, higher education, science and capacity building that will give a strong boost to the relationship among young northern students, future indigenous leaders, young scientists, and early career business experts, as well as giving them global connections and confidence.	At risk	This project has been removed from the SDWG work plan due to lack of resources.	FIN; NOR	None
SDWG	22. Arctic Children-Preschool Education and Smooth Transition to School	The nomadic school project is aimed at the analysis and evaluation of educational practices without interrupting the traditional way of life of Indigenous peoples – children of nomads, providing them with the knowledge and skills necessary to function fully as effective members of both their own community and mainstream society. The main objective of the project is collection of data related to best international practices and their implementation: optimal curriculum and education process organization, creation of arctic nomadic tutoring system.	Delayed	This project will now continue into the Icelandic Chairmanship and potentially merge with a proposed project by Russia, RAIPON and the Northern Forum entitled "International School". A revised project plan is under development for consideration at a future SDWG meeting.	FIN; RUS; RAIPON	None
SDWG	23. Teacher Training for Diversity and Equality in the Arctic	The key actions of the project are divided into four main categories: a) Knowledge Exchange; b) Shared Research; c) Cooperation in teacher education; and d) Long term continuity (beyond 2019). The thematic network will continue as a UArctic thematic network among teacher education institutions across the circumpolar north. It will focus promoting quality, culturally relevant teacher education for the north. The UArctic Thematic Network on Teacher Education for Social Justice and Diversity in Education will lead the project.	Completed	See the following project outputs: Book: Including the North: A comparative study of the policies on inclusion and equity in the circumpolar north Recommendations: SDWG Conclusions – Teacher Education for Diversity and Equality in the Arctic	CAN; FIN; NOR; RUS	Book: Including the North: A comparative study of the policies on inclusion and equity in the circumpolar north; Recommendations: SDWG Conclusions – Teacher Education for Diversity and Equality in the Arctic

SDWG	25. Good Practice Recommendations for Environmental Impact Assessment (EIA) and Public Participation in EIA in the Arctic (Arctic EIA)	The objectives of this project are: a) to improve the utilization of EIA as a tool to combine economic activities and environmental aspects; b) to increase the weight of environmental issues in project planning and decision making; c) to strengthen public participation and inclusion of indigenous, traditional and local knowledge in EIA processes; d) to identify good practices within Arctic region by sharing experience and learning from each other through networking; and e) to reach developers and to learn about Arctic-specific issues in EIA (in cooperation with the Arctic Economic Council). The project will produce Good Practice Recommendations on EIA and Public Participation in EIA in the Arctic. It will build a network of national and regional EIA authorities and other actors in the Arctic region.	Completed	See the project final report: Good Practices For Environmental Impact Assessment and Meaningful Engagement in the Arctic including recommendations	CAN; FIN; KOD; GCI	Report: Good Practices For Environmental Impact Assessment and Meaningful Engagement in the Arctic including recommendations
SDWG	26. Solid Waste Management in Small Arctic Communities	The project goals and deliverables include: 1) an examination of current best practices in solid waste management among the Arctic States; 2) a determination of the potential need for policy actions to address waste management issues; 3) assessing the potential for recycling/reusing plans that will lower waste and provide revenue, building on Indigenous traditions of "nothing wasted, everything used"; 4) an examination of programs to educate communities and raise awareness about waste management and how changes can positively affect them; and 5) an assessment of contaminants issues related to solid waste disposal in the Arctic. This project will operate under the auspices of the SDWG, but will also include close cooperation with ACAP which will provide expertise in articulating contaminants issues related to solid waste handling. In addition, the involvement of the Arctic Economic Council (AEC) will be invaluable in exploring the potential for public/private partnership approaches to waste management.	Completed	See project report: Best Waste Management Practices Small and Rural Arctic Communities	CAN; FIN; AIA	Final Report: Best Waste Management Practices Small and Rural Arctic Communities
SDWG	Arctic Resilience Action Framework (ARAF)	The Arctic Resilience Action Framework (ARAF) is an organizing framework, to improve coordination and enhance shared learning using the resilience approach as a tool. Implementation of the ARAF will involve three activities: 1) Identify actions that are taken by Arctic Council States, Permanent Participants, and Working Groups, in 2017-19, that build resilience; 2) Develop a catalog of protocols and indicators that can measure progress towards building resilience; 3) Plan an Arctic Resilience Forum to take place September 10-11, 2018 in Rovaniemi, Finland.	Completed	See project reports and SDWG suggestions on future disposition of ARAF: Report: ARAF Progress Report 2017-2019 Report: Report of Arctic Resilience Forum (for information only) SDWG Input to SAOs on ARAF: SDWG Suggestions on ARAF for consideration by SAOs	FIN; SWE; USA	Report: ARAF Progress Report 2017-2019
SDWG	Arctic Sustainable Energy Futures Toolkit	The project is intended to create a comprehensive long-term energy planning process for socially-desirable and economically-feasible energy solutions for communities in the Arctic by developing an Arctic Sustainable Energy Futures Framework (ASEFF) and an ASEFF Toolkit. This project will build practical knowledge and capacity of Indigenous peoples and Arctic community members around energy, and will help them seek sustainable benefits and opportunities from the energy sector.	Completed	See project report and toolkit: Report: Arctic Sustainable Energy Futures Final Report Toolkit: Arctic Community Energy Planning and Implementation Toolkit	CAN; KOD; GCI	Report: Arctic Sustainable Energy Futures Final Report; Toolkit: Arctic Community Energy Planning and Implementation Toolkit
SDWG	Zero Arctic: Concepts for carbon neutral Arctic construction based on tradition	The focus of the Zero Arctic project is to develop regional concepts for Arctic building construction that would be carbon neutral over their full life cycle. The aim is to utilise both scientific life cycle assessment and energy simulation methods as well as to learn from and apply traditional knowledge of sustainable construction.	On track	Project is on track for completion in 2020 as originally planned.	CAN; FIN	None

Task Force	Task Force on Arctic Marine Cooperation-II	The Fairbanks Declaration in spring 2017 established a "new mandate for the Task Force to build upon this work by presenting terms of reference (ToRs) for a possible new subsidiary body, and recommendations for complementary enhancements to existing Arctic Council mechanisms, for consideration by Ministers in 2019.	On track	The Task Force held 2 meetings: one in Helsinki on 14-15 September 2017, another one - in Quebec City on 15-16 February 2018. Based on additional instructions from the Senior Arctic Officials (SAOs) in February 2018, the TFAMC II (2017-2019) suspended its work regarding the development of draft ToR for a possible new Arctic Council subsidiary body. Instead, the Task Force has focused its recent work on the recommendations for complementary enhancements of the Arctic Council institutions. The primary recommendation from the TFAMC-II is to establish a SAO-based mechanism to guide the marine work of the Arctic Council and improve coordination on marine issues in the Arctic Council.	FIN; ICE; USA	Recommendations by the Task Force on Arctic Marine Cooperation II for complementary enhancements of the Arctic Council institutions including the SAO based mechanism to coordinate marine issues in the Arctic Council
Task Force	Task Force on Improved Connectivity in the Arctic (TFICA)	The TFICA will be formed to continue the work of the TFTIA, and will build upon the experience of the telecommunications industry to deepen the analyses of the different user needs versus the available technologies and services in order to achieve improved connectivity in the Arctic. The TFICA should report directly to the SAOs and deliver a final report to Ministers in 2019.	On track	The Task Force has held four meetings so far; 1) Helsinki on 21 November 2017, 2) Washington D.C. on 16-17 May 2018, 3) Copenhagen on 26-27 September 2018 and 4) Reykjavik on 11-12 December 2018. A number of teleconferences has been arranged in addition to regular meetings. A drafting group has also met once in Ottawa 24-25 January 2019.	FIN; KOD	The TFICA will deliver a final report to Ministers in 2019.
Task Force	Task Force for Enhancing Scientific Cooperation in the Arctic	The Kiruna Declaration calls on the Task Force to "...work towards an arrangement on improved scientific research cooperation among the eight Arctic States."	To be archived		RUS; USA	