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Pg	Working Group	Initiative Title	Status	Start	End
1	ACAP SDWG	Solid Waste Management in Remote Arctic Communities	On track	2020	2023
2	ACAP	AFFF (Aqueous Film Forming Foam) and other PFAS containing Foam Phase Out in The Arctic	On track	2019	2023
3	ACAP	ARCRISK - Mercury Risk Evaluation, Risk Management and Risk Reduction Measures in the Arctic	On track	2019	2023
4	ACAP	Arctic Black Carbon Case Studies Platform (SLCP EG)	On track	2013	Ongoing
5	ACAP	Arctic Green Shipping - SLCP Mitigation	On track	2017	Ongoing
6	ACAP	Circumpolar Local Environmental Observers (CLEO) Network (IPCAP)	On track	2015	Ongoing
7	ACAP	Community-based black carbon and public health assessment (IPCAP)	On track	2016	2023
8	ACAP	Demonstration of management and destruction of 250 tons of PCB in transformers: Phase III (Hazardous Waste EG)	Delayed	2001	2023
9	ACAP	Dudinka Municipal Waste Land-fill project	On track	2017	2023
10	ACAP	Inventory of uses of POPs and Mercury and their Emission Sources in Murmansk Region	On track	2019	2023
11	ACAP	Kola Waste project	On track	2018	Ongoing
12	ACAP	Phase-out of ozone-depleting substances and fluorinated greenhouse gases (HFC) at fish and seafood processing enterprises (SLCP EG)	On track	2017	Ongoing
13	ACAP	Promotion of decrease of the Barents region pollution by introduction of BAT ("BAT in the Arctic")	On track	2017	2023
14	AMAP CAFF	Understanding climate change impacts on Arctic ecosystems and associated climate feedbacks	On track	2020	Ongoing
15	AMAP	Air Pollution, including SLCFs	On track	2017	Ongoing
16	AMAP	AMAP Trends and Effects Programme	On track	Pre2000	Ongoing
17	AMAP	Arctic marine microplastics and litter	On track	2018	Ongoing
18	AMAP	Climate Issues: Cryosphere, meteorology, ecosystem impacts	On track	2018	Ongoing
19	AMAP	Contaminant issues: POPs and mercury	On track	2018	Ongoing
20	AMAP	Contaminant issues: Radioactivity	On track	2015	Ongoing
21	AMAP	Human Health and combined effects	On track	2017	Ongoing
22	AMAP	Sustaining Arctic Observing Networks (SAON)	On track	2012	Ongoing
23	AMAP	Unmanned Aircraft Systems (UAS)	On track	2013	Ongoing
24	CAFF PAME	Information Briefs on Arctic environment under change	On track	2021	
25	CAFF PAME	Invasive species	Completed	2015	Ongoing
26	CAFF	Actions for Arctic Biodiversity: Implementing the recommendations of the Arctic Biodiversity Assessment	On track	2013	2023
27	CAFF	Arctic Biodiversity Data Service (CAFF)	On track	2012	Ongoing
28	CAFF	Arctic Migratory Birds Initiative (AMBI): Implementation	On track	2013	Ongoing
29	CAFF	Arctic Wildland Fire Ecology Mapping and Monitoring Project (ArcticFIRE)	On track	2019	2023
30	CAFF	CAFF IASC Fellowship	On track	2017	Ongoing
31	CAFF	CAFF Youth Engagement Strategy 2021-2026	On track	2014	Ongoing
32	CAFF	CBMP Coastal Biodiversity Monitoring Plan: implementation	On track	2014	Ongoing
33	CAFF	CBMP Freshwater Biodiversity Monitoring group: implementation	On track	2021	Ongoing
34	CAFF	CBMP Indicators	On track	2001	Ongoing
35	CAFF	CBMP Marine Biodiversity Monitoring group: implementation	On track	2009	Ongoing
36	CAFF	CBMP Terrestrial Biodiversity Monitoring group	On track	2011	Ongoing
37	CAFF	Circumpolar Biodiversity Monitoring Program (CBMP) - General	On track	2001	Ongoing
38	CAFF	Climate change impacts on bearded seals	On track	2016	Ongoing
39	CAFF	Community Observation Network for Adaptation and Security (CONAS)	On track	2014	
40	CAFF	Conservation of biodiversity in a changing Russian Arctic	On Hold	2011	Ongoing
41	CAFF	Follow-up on Arctic Council cross-cutting initiatives	On track	2017	Ongoing
42	CAFF	Mainstreaming Arctic Biodiversity	On track	2017	Ongoing
43	CAFF	Nomadic herders: enhancing resilience of pastoral ecosystems and livelihoods	On track	2012	Ongoing
44	CAFF	Salmon People of the Arctic	On track	2013	
45	CAFF	Scoping for Resilience and Management of Arctic Wetlands	On track	2017	Ongoing
46	CAFF	Seabird program	On track	Pre2000	Ongoing
47	CAFF	Second Arctic Biodiversity Congress	Completed	2021	2023
48	CAFF	Third Arctic Biodiversity Congress	Awaiting Info		
49	CAFF	Traditional Knowledge and CAFF	Completed	2016	Ongoing
50	EPPR PAME	Environmental toxicity and fate of light and intermediate fuel when spilled in cold waters	On track	2019	2021
51	EPPR	Analysis of Potential Radiological Consequences of Selected Emergencies Relevant for the Arctic Region	On track	2021	2022
52	EPPR	Arctic Lessons Learned Arena	On track	2020	2021
53	EPPR	Arctic Rescue	On track		Ongoing
54	EPPR	Capability Analysis to respond to a Radiological/Nuclear Emergency in the Arctic	On track	2021	2022
55	EPPR	Circumpolar Fire	On track	2019	Ongoing
56	EPPR	Coordination and practical implementation of the SAR agreement (SAR Expert Group)	On track	2013	Ongoing
57	EPPR	Development of Safety Systems in Implementation of Economic and Infrastructure	On track		Ongoing
58	EPPR	Follow-up on the Framework Plan on Oil Pollution Prevention	On track	2015	Ongoing
59	EPPR	International Cooperation on Aerial Surveillance ICAMS	On track	2021	2022

		Maintain and update the Operational Guidelines, appendix to the Agreement on			
60	EPPR	Cooperation on Marine Oil Pollution Preparedness and Response	On track	2013	Ongoing
61	EPPR	NEPTUNE	Completed	2020	2021
62	EPPR	Prevention, Preparedness and Response for Small Communities	On track	2014	Ongoing
63	EPPR	Risks Project (RAD EG)	On track	2020	2021
64	EPPR	Validation of International Maritime Organization Polar Code Survival Time Requirement	On track	2021	Ongoing
65	Expert Group	Expert Group in support of implementation of the Framework for Action on Black Carbon and Methane (EGBCM)	On track	2015	Ongoing
66	PAME CAFF	Arctic Protected and Important Areas	On track	2017	2021
67	PAME CAFF	Marine Invasive Alien Species in Arctic Waters	On track		
68	PAME CAFF	Other Effective Area-based Conservation Measures (OECM) in the Arctic Marine Environment	On track	2021	
69	PAME EPPR	New Low Sulphur Fuels, Fate, and Behaviour in Cold Water Conditions	On track	2019	2023
70	PAME	4th AMSP Implementation Status Report 2021-2023	On track	2015	Ongoing
71	PAME	7th EA Workshop on values and valuation of the cultural, social and economic goods and services produced by the ecosystems (20-22 Feb 2022)	On track	2019	2022
72	PAME	A framework for more systematically engaging with Observers on shipping related	On track	2019	2023
73	PAME	AMSP Implementation Status Report 2019-2021	On track	2019	2021
74	PAME	Arctic Arrangement for Regional Reception Facilities	On track		
75	PAME	Arctic Coastal Cleanup	On track		
76	PAME	Arctic Marine Tourism: Development in the Arctic and enabling real change	On track	2019	2021
77	PAME	Arctic Port Reception Facilities Inventory	On track		
78	PAME	Arctic Ship Traffic Data (ASTD) System	On track	2019	Ongoing
79	PAME	Arctic Shipping Best Practice Information Forum	On track	2017	2023
80	PAME	Arctic Shipping Status Reports	On track	2019	Ongoing
81	PAME	Black Carbon emissions from shipping activity in the Arctic and technology developments for their reduction	On track	2019	2021
82	PAME	Capacity building, information outreach and collaboration	On track	2019	2021
83	PAME	Collaboration with the Arctic Regional Hydrographic Commission (ARHC)	On track	2019	2023
84	PAME	Collect and summarize information on Arctic State safe and low-impact marine corridor initiatives	On track	2019	2021
85	PAME	Collect, report and/or review information about on-shore use by indigenous peoples and local communities of HFO	On track	2019	2021
86	PAME	Concept paper on further cooperation under the Arctic Council on Ecosystem-Based Management (EBM/EA) of Arctic marine ecosystems	On track		
87	PAME	Continue the project on Modelling Arctic Oceanographic Connectivity, with the inclusion of the Central Arctic Ocean, to further develop PAME's Marine Protected Areas Toolbox	On track	2019	2021
88	PAME	Develop additional Information Briefs on the Arctic marine environment under change	On track	2019	2021
89	PAME	Develop an Implementation Plan for the Regional Action Plan on Marine Litter in the Arctic (ML-RAP)	On track		
90	PAME	Develop an overview of Arctic States' and Observer States' interpretation of the Polar Different Ways of Knowing: Applying Indigenous and Local Knowledge and Scientific Information to Arctic Conservation Planning	On track	2019	2023
91	PAME	Existing Waste Management Practices and Pollution Control for Marine and Coastal	On track		
92	PAME	Expansion and Refinement of the MPA Network Toolbox	On track		
93	PAME	Fishing Practice & Gear Inventory: Enhancing Understanding of Abandoned Lost or otherwise Discarded Fishing Gear (ALDFG)	On track		
94	PAME	Implementation Plan for the ARIAS Strategy and Action Plan	On track	2019	2021
95	PAME	Integrated Ecosystem Assessment (IEA) of the Central Arctic Ocean (WGICA)	On track	2019	Ongoing
96	PAME	Interpretation of the Polar Code	On track		Ongoing
97	PAME	Management of Arctic Marine Oil and Gas Associated Noise	On track		
98	PAME	Marine Litter Communication and Outreach Activities	On track		Ongoing
99	PAME	Meaningful Engagement of Indigenous Peoples and Local Communities in Marine Activities (MEMA): Outreach and Next Steps	On track	2019	2021
100	PAME	Raising awareness in the Arctic Council of the provisions of the 2012 Cape Town Agreement for the safety of fishing vessels	On track	2021	2023
101	PAME	Report on development in defining or setting Ecological objectives	On track	2019	2021
102	PAME	Revise the Ecosystem Approach Framework (EA) and develop a tool for following EA implementation in the Arctic LMEs	On track		
103	PAME	Revisiting the Framework for a Pan-Arctic Network of MPAs (2015) for potential updates	On track		
104	PAME	Synthesis Report on Ecosystem Status, Human Impact and Management Measures in the Central Arctic Ocean (CAO)	On track		
105	PAME	Systematically Strengthening Observer Engagement in PAME's Shipping Work	On track		Ongoing
106	PAME	Targeted update of the Arctic Council Arctic Marine Strategic Plan (AMSP 2015)	On track	2021	
107	PAME	The Arctic Shipping Best Practice Information Forum	On track		Ongoing
108	PAME	Third International Science and Policy Conference on Implementation of the Ecosystem Approach to Management in the Arctic	Delayed	2019	2021
109	PAME	Underwater Noise in the Arctic – Phase I	On track	2019	2023

		Underwater Noise in the Arctic: Understanding Impacts and Defining Management Solutions - Phase II	On track		
111	PAME		On track	2017	2021
112	PAME	Update of PAME's shipping priorities and recommendations	On track	2019	2021
113	PAME	Update the Arctic Offshore Oil and Gas Regulatory Resource (AOGRR)	On track	2021	2023
114	PAME	Wastewater Discharges from Vessels in the Arctic - A Survey of Current Practices	On track	2021	2023
115	SDWG AMAP	Biosecurity in the Arctic	On track	2021	2023
116	SDWG	Advancing Arctic Resilience: Exploring Aspects of Arctic Resilience connected to the impacts of permafrost thaw	On track	2021	2023
117	SDWG	Arctic Community Perspectives on Covid-19 and Public Health: a Multi-site Case Study	On track	2021	2023
118	SDWG	Arctic Demography Index	On track	2020	2023
119	SDWG	Arctic Food Innovation Cluster (AFIC)	On track	2019	2023
120	SDWG	Arctic Hydrogen Energy Applications and Demonstrations (AHEAD)	On track	2020	2024
121	SDWG	Arctic Indigenous Youth, Climate Change and Food Culture (EALLU) II	On track	2019	2023
122	SDWG	Arctic Remote Energy Networks Academy (ARENA) II	On track	2019	2023
123	SDWG	COVID-19 in the Arctic Assessment Report	On track	2021	2023
124	SDWG	Digitalization of Linguistic and Cultural Heritage of Indigenous Peoples of the Arctic	On track	2020	2024
125	SDWG	Local 2 Global: Circumpolar collaboration for suicide prevention and mental wellness	On track	2019	2023
126	SDWG	One Arctic, One Health	On track	2020	2023
127	SDWG	Preserving ARCTic ARChitectural Heritage (PrARCHeritage)	On track	2021	2023
128	SDWG	Sustainable Development Goals in the Arctic: The Nexus Between Water, Energy, and Food (WEF)	On track	2020	2023

ACAP SDWG

**AC Leads:**

USA CAN AIA Saami Council FIN NOR

**Status:**

On track

## Solid Waste Management in Remote Arctic Communities

This project is a collaborative effort between the SDWG and ACAP. This circumpolar project seeks to bring together past and current waste management efforts and involves cooperation with Indigenous leaders, local, regional, and national governments, community leaders and solid waste management experts, to leverage available resources and scale up best practices that contribute to resilient and healthier Arctic communities. The project seeks to provide in-person and online resources to address the unique needs of Arctic communities, from planning to implementation of solid waste management practices. Infrastructure improvements and in-community education and training on maintenance operation for these improvements are a high priority.

**SAO Notes**

- 1) SDWG: This project was endorsed intersessionally by the SDWG in August 2020.
- 2) ACAP: ACAP approved Solid Waste Management in Remote Arctic Communities project proposal at its meeting in September 2020.
- 3) The project proposal was submitted for PSI funding, and it was approved by PSI Committee at PCOM%2315 meeting on 15 March 2021. The project leads, in cooperation with NEFCO (PSI Fund Manager), have started the planning phase.
- 4) Project leads are in the process of developing a voluntary, online self-assessment survey to gather information from small Arctic Communities and is seeking support for this effort from SDWG and ACAP Heads of Delegation.

**Deliverables 2023**

The community solid waste online assessment tool

**Timeframe**

2020 - 2023

**Coordination with others**

This is a joint ACAP-SDWG project

**Observer contribution****Permanent Participant Engagement**

The project leads will reach out to all PPs to invite them to join the project and bring up their ideas.

**Contact**

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**Traditional Knowledge and Local Knowledge**

ACAP

**AC Leads:**

FIN USA

**Status:**

On track

## AFFF (Aqueous Film Forming Foam) and other PFAS containing Foam Phase Out in The Arctic

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

The project will develop cost effective and appropriate recommendations for the removal of PFAS-based firefighting foams for all applications within the Arctic region, without jeopardizing risk reduction. It will also outline alternatives to fluorinated foams.

**SAO Notes**

The consultants and the steering group (consisting of AC and other experts of AFFF foams and fire safety) have worked on the project since April 2021. Project completion is tentatively December 2022 (74 weeks).

The consultant has sent questionnaires on fire-fighting foams to relevant operators in the Arctic. Literature review draft is currently being commented on by the steering group. A webpage on the ACAP website and a factsheet for the AFFF project were developed and published online in summer 2021.

**Deliverables 2023**

AFFF project final report

**Timeframe**

2019 - 2023

**Coordination with others**

Possible coordination with AMAP and EPPR

**Observer contribution****Permanent Participant Engagement****Contact**

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**Traditional Knowledge and Local Knowledge**

ACAP

**AC Leads:**

NOR

**Status:**

On track

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

The aim of this project is to develop an action plan with targeted risk reduction measures for mercury releases from key sources in the Arctic. The project is comprised of 6 work packages that include the following list of activities: inception, mercury source inventory, risk evaluation of mercury and multiple stressor impacts, demonstration of sound reduction measures, stakeholder involvement, capacity building and dissemination, and project management.

**SAO Notes**

The ARCRISK - Mercury Risk Evaluation, Risk Management, and Risk Reduction Measures in the Arctic project received PSI funding for Work Packages %232-6 in March 2021, the PSI Committee approved the Final Investment Decision of a PSI commitment of up to EUR 789,000 for the project. The aim of this project is to develop an action plan with targeted risk reduction measures for mercury releases from key sources in Canada, Norway and Russia.

**Deliverables 2023**

1. A decision support tool for stakeholders, that will help to formulate cost-efficient action plans.
2. Action plan with targeted risk reduction measures for mercury releases from key sources in the Arctic.

**Timeframe**

2019 - 2023

**Coordination with others**

AMAP EG on Mercury

**Permanent Participant Engagement****Traditional Knowledge and Local Knowledge****Observer contribution****Contact**

Åke Mikaelsson (Swedish EPA)  
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ACAP

**AC Leads:**

USA

**Status:**

On track

## Arctic Black Carbon Case Studies Platform (SLCP EG)

Through this project, the U.S. EPA is working 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. Currently, there are about 100 case studies highlighted. Project leads have worked with EGBCM and introduced links to emissions inventories from Arctic States and Observers to the platform. Increased outreach will also be undertaken by Arctic States, PPs and Arctic Council Observers to gather more case studies that demonstrate the effectiveness of projects that reduce black carbon emissions in the Arctic.

**SAO Notes**

Currently, there are about 85 case studies highlighted. Project leads have worked with EGBCM and introduced links to emissions inventories from Arctic States and Observers to the platform. An Arctic Fellow with the Conservation of Arctic Flora and Fauna (CAFF) Working Group is researching additional case studies.

**Deliverables 2023**

Possible new case studies

**Timeframe**

2013 - Ongoing

**Coordination with others**

EGBCM

**Observer contribution****Permanent Participant Engagement****Contact**Patrick Huber [huber.patrick@epa.gov](mailto:huber.patrick@epa.gov)**Traditional Knowledge and Local Knowledge**[kseniia@arctic-council.org](mailto:kseniia@arctic-council.org)



ACAP

**AC Leads:**

RUS

**Status:**

On track

## Arctic Green Shipping - SLCP Mitigation

The project aims to reduce atmospheric emissions of SLCPs from river shipping in northern regions of the Russian Arctic. In addition, the project seeks to decrease atmospheric emissions and water discharges of local pollutants and contaminants. Best practices could be replicated in other regions of the Arctic.

### SAO Notes

The completion report for the first phase was finalized and the PSC held a meeting on January 26, 2021 to agree on recommendations regarding a phase 2, including possible investments. Limitations are noted in terms of funds available within PSI. The SLCP EG reviewed the Phase 1 final report in May 2021. Phase 1 is completed and the Russian project owner is considering a possible proposal for a second phase.

### Deliverables 2023

Discussions for a Phase 2 of this project are underway.

### Timeframe

2017 - Ongoing

### Coordination with others

ACAP has been in contact with PAME regarding participation of a PAME expert in the PSC.

### Observer contribution

### Permanent Participant Engagement

### Contact

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### Traditional Knowledge and Local Knowledge

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ACAP

**AC Leads:**

USA FIN NOR SWE

**Status:**

On track

## Circumpolar Local Environmental Observers (CLEO) Network (IPCAP)

The main objective of the CLEO Initiative is to increase awareness of vulnerabilities and the impacts of climate change in Arctic communities through observations by local residents.

The initiative has been expanding the coverage of an existing community-based monitoring tool, the Local Environmental Observer network (LEO), while also inspiring local solutions. LEO Network is a network of people, local observers and topic experts who share knowledge about unusual animal, environment, and weather events. The web-based platform with an original concept, where first person observers submit news articles, and make observations about unusual events and a changing environment.

### SAO Notes

The Circumpolar Local Environment Observer Network (CLEO) project has made good progress in establishing observer communities in the Sapmi area across borders of Sweden, Finland and Norway. CLEO Hubs in Norway, Canada, and the United States continue to support community-monitoring and sharing through webinars and periodic updates. Upcoming work under the Circumpolar LEO Initiative will focus on the youth component, which includes activities in Sapmi and in the Far East of Russia. The latter were postponed due to the COVID-19 pandemic. Additionally, the initiative is developing new tools and technology to strengthen observations and to support greater communication and coordination among Circumpolar LEO members.

### Deliverables 2023

#### Coordination with others

Collaborating with SDWG and CAFF, specifically on One Health initiative in SDWG and biodiversity monitoring with CAFF

#### Permanent Participant Engagement

AIA and Saami Council are active partners within the Initiative. IPS has developed a project proposal for including Chukotka and Kamchatka into the project.

#### Traditional Knowledge and Local Knowledge

TLK holders are encouraged to use the LEO network to track the changes happening in the Arctic.

### Timeframe

2015 - Ongoing

### Observer contribution

### Contact

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ACAP

**AC Leads:**

USA AIA

**Status:**

On track

## Community-based black carbon and public health assessment (IPCAP)

Phase 2 of the Community-based black carbon and public health assessment project (the Project) aims to demonstrate methods of preventing and mitigating air quality contamination from black carbon emissions while also protecting public health. The Project will assess, on a pilot basis, local sources of black carbon emissions from a number of Alaskan, Russian and Saami villages. It will provide a broad characterization of associated public health risks; explore short- and long-term mitigation options; assess and, where possible, strengthen local capacities to identify, mitigate and prevent BC pollution; draft a framework tool for community-based assessments of black carbon emissions and health risks, and educate local communities about BC emissions and risks.

**SAO Notes**

The Community-Based Black Carbon and Public Health Assessment (Phase 2) project was approved for PSI funding in December 2020, and the project leads are finalizing negotiations with NEFCO on the first contract for project implementation. During this phase, project partners will implement monitoring, public health characterization and community awareness measures in close cooperation with five Arctic villages – two in Alaska and three in the Russian Federation. SLCP EG and IPCAP, in cooperation with AMAP, are also planning a series of webinars on black carbon and health hosted by different Arctic communities.

**Deliverables 2023****Timeframe**

2016 - 2023

**Coordination with others**

SDWG, AMAP, EGBCM

**Observer contribution****Permanent Participant Engagement**

AIA is a Co-lead on the project.

**Contact**

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**Traditional Knowledge and Local Knowledge**

John Bennett, Arctic Alliance bennettandassoc@aol.com

ACAP

**AC Leads:**

FIN RUS

**Status:**

Delayed

## 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. The UNIDO-GEF-Russian Railways PCB project - ongoing since 2013 - has initiated two PCB facilities, which are relevant for the future ACAP activities in the field. The 1st facility ("PCB Cleaning, initially located in Manikhino, Moscow Region) was transferred to LLC "Rosatom Greenway" for operation in Krasnoyarsk. The facility has undergone necessary testing and necessary permits have been obtained.

**SAO Notes**

The project is delayed pending completion of the UNIDO-GEF-Russian Railways PCB project, which has been extended until 31 August 2021. PSI Committee allocated resources for developing ACAP involvement in the project, but none of it has been used as of yet. The evaluation work is expected to commence upon commissioning of the 2nd facility.

**Deliverables 2023****Timeframe**

2001 - 2023

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

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**Traditional Knowledge and Local Knowledge**

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ACAP

**AC Leads:**

RUS

**Status:**

On track

## 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.

### SAO Notes

Moscow based consultant EIPC has been working on the project proposal on a grant received from PSI. The first draft of Phase 0 report was finalized in Q1/2021. The consultant was tasked to sample and analyse soil, water, air and sediment samples from the area surrounding the landfill for contaminants and estimate the releases to Yenisey river. The ToR for the assignment was discussed in the PSC in July. The samples were taken in the end of August by the subconsultant Proinzgroup.

Depending on the results, the project proposal can be developed after completion of Stage 1 in Q4/2021 for EG on Waste and subsequently ACAP WG approval. No timeline has been set yet, but 2021-2023 is anticipated.

### Deliverables 2023

### Timeframe

2017 - 2023

### Coordination with others

### Observer contribution

### Permanent Participant Engagement

### Contact

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### Traditional Knowledge and Local Knowledge

Ekaterina Veselova VeselovaEV@mnr.gov.ru

ACAP

**AC Leads:**

RUS SWE FIN

**Status:**

On track

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

The Project aims at overbridging existing knowledge gaps on POPs and mercury sources. This project is focused on promoting installation of control techniques aiming at limiting/eliminating release of POPs and Mercury at regional levels in the Russian Federation, and based on this promote the elaboration of Action Plans for pollution reduction as well as for compliance with Stockholm and Minamata Conventions requirements.

**SAO Notes**

The project received PSI funding in 2020. Recently, the Tomsk Polytechnic University (TPU), instead of the Novosibirsk Institute of Organic Chemistry (NIOC) joined the project team as a key partner. So, the original project proposal has been slightly revised.

**Deliverables 2023**

1. Report on sources of POPs and Mercury in Murmansk region.
2. Action Programme for phasing-in alternative chemicals and techniques, environmentally sound waste management, and efficient emission reduction of unintentionally produced POPs and mercury.

**Timeframe**

2019 - 2023

**Coordination with others**

AMAP

**Permanent Participant Engagement**

The project leads will connect with IPCAP and Saami Council to explore opportunities for interlinkages between these two projects.

**Observer contribution****Contact**

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**Traditional Knowledge and Local Knowledge**

ACAP

**AC Leads:**

Saami Council SWE NOR

**Status:**

On track

## Kola Waste project

The Saami Council and its member organization and local partner, OOSMO, have been leading the Kola Waste project since April 2018. The project was supported by the Ministry of Natural Resources of the Murmansk Region and by the Arctic Council's Arctic Contaminants Action Program (ACAP) Working Group. The project has been financed by Norway and Sweden. The goal of this project has been to map local sources of possible pollution (waste dumpsites), clean up previously mapped abandoned and unauthorized dumpsites, and, thus, contribute to a better environment for the Sámi communities of the Kola peninsula (Russian Federation). Part of the project has been to raise awareness of the risks of pollution from unauthorized dumpsites and prevent appearance of new dumpsites, and to engage local population, including youth.

**SAO Notes**

The Kola Waste Project report was one of the deliverables for the 2021 Ministerial. It presents results of the inventory phase and the primary clean-up phase. The project identified 43 waste dumpsites in the Sámi area on the Kola peninsula. Reduction efforts were introduced at three sites and 96 tons of waste were collected from these locations for further disposal. The project engaged local Sámi population in Sámi communities of the Kola peninsula and raised awareness of pollution risks. To support the report, a short video on the Kola Waste project was released in June 2021 (funded by Norway).

The next phase of the project will focus both on further clean-up of more difficult sites as well as on experience sharing with other communities. This phase of the Kola Waste Project will adapt to form a part of the circumpolar ACAP-SDWG Solid Waste Management Project and may have valuable experience for communities in the Russian Arctic. The IPCAP EG is planning to organize a Kola Waste Outreach Webinar and Educational Virtual (or physical) Tour when the situation around the COVID-19 pandemic improves. This tour also aims at mobilizing schools and local communities in the CLEO network.

**Deliverables 2023****Timeframe**

2018 - Ongoing

**Coordination with others****Observer contribution****Permanent Participant Engagement**

Saami Council is the project lead.

**Contact**Ivan Matrekhin [ivan@saamicouncil.net](mailto:ivan@saamicouncil.net)Åke Mikaelsson [ake.mikaelsson@naturvarldsverket.se](mailto:ake.mikaelsson@naturvarldsverket.se)**Traditional Knowledge and Local Knowledge**

ACAP

**AC Leads:**

RUS

**Status:**

On track

## Phase-out of ozone-depleting substances and fluorinated greenhouse gases (HFC) at fish and seafood processing enterprises (SLCP EG)

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. The project will enable phase-out of approximately 18.65 ODP t of ODS and reduction of greenhouse gas emissions by 308 t CO<sub>2</sub>-eq. within 5 years through diminishing consumption of ODS and F-gases and adopting new energy efficient low GWP technologies and substances.

Additionally, the project will disseminate lessons learned from the implementation of the Project to other sectors of the Murmansk oblast, fishing industry of the Arctic zone of the Russian Federation (AZRF) and of the Russian Federation (RF).

### SAO Notes

To date, tenders have been held for the three largest recipients of technical assistance for the Project: for conversion of LLC "FC "Polar Sea+" (Norebo holding) and LLC "MurmanStroy" (Virma holding) for environmentally friendly technologies, and for the establishment of a Training center on the base of Murmansk State Technical University (MSTU). Contracts have been signed and work has begun at MSTU.

Within the framework of the small grants program, the supply of equipment for service companies in the Murmansk Oblast has been completed; a tender has been held and a contract for the conversion of a small fish-processing enterprise (TD "Samson-Trade" Ltd) is being finalized. The tender for the conversion of another small fish-processing enterprise (LLC "Murman Fish") was postponed for September-October 2021 at the request of the recipient to adjust the technical specifications.

Work has begun on the establishment of a recycling system in the Murmansk Oblast (development of a feasibility study and technical documentation for an ODS and F-gases recycling and disposal system). A website for the Project is being created in English and Russian.

### Deliverables 2023

TBD

### Timeframe

2017 - Ongoing

### Coordination with others

Need for coordination of SLCP activities between ACAP, AMAP, and AC EGBCM

### Observer contribution

### Permanent Participant Engagement

### Contact

Ekaterina Veselova (Russia) VeselovaEV@mnr.gov.ru

### Traditional Knowledge and Local Knowledge

Ulf Bojö NEFCO Ulf.Bojo@nefco.fi



ACAP

**AC Leads:**

RUS SWE

**Status:**

On track

## Promotion of decrease of the Barents region pollution by introduction of BAT ("BAT inthe Arctic")

The overall objective of the project is to prevent and decrease Arctic pollution based on the BAT knowledge exchange with enterprises and universities, facilitating environmental investments in the area. Includes a feasibility study, development of continuously operating training systems for experts and authorities, workshops and seminars to distribute findings.

### SAO Notes

The P3.2 - "BAT in the Arctic" project is expected to start its Scoping Study during November 2021.

### Deliverables 2023

1.) Assessment Report of the reduction potential (emissions, discharges, waste, energy) from industries in the Russian North by introduction of BAT.

2.) Action Programme for promotion of introduction of BAT at industrial enterprises of the Russian North

### Timeframe

2017 - 2023

### Coordination with others

Links to Barents Hot Spots

### Permanent Participant Engagement

### Traditional Knowledge and Local Knowledge

### Observer contribution

### Contact

Ekaterina Veselova (RF) VeselovaEV@mnr.gov.ru

Åke Mikaelsson (SW) ake.mikaelsson@naturvardsverket.se

AMAP CAFF

**AC Leads:**

KOD NOR

**Status:**

On track

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

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

**SAO Notes****Deliverables 2023****Coordination with others**

AMAP

**Permanent Participant Engagement**

PPs engaged in the project Steering Group and providing input to the development of the project proposal, scoping document and implementation plan

**Timeframe**

2020 - Ongoing

**Observer contribution****Contact**

AMAP Secretariat, amap@amap.no

Tom Barry, tom@caff.is

**Traditional Knowledge and Local Knowledge**

AMAP

**AC Leads:**

CAN FIN NOR USA

**Status:**

On track

## Air Pollution, including SLCFs

2021/23: Follow-up to 2021 assessment of air pollution with focus on SLCFs

### SAO Notes

**Deliverables 2023**

**Coordination with others**

EGBCM, ACAP

**Permanent Participant Engagement**

**Traditional Knowledge and Local Knowledge**

ACAP community based black carbon initiative

**Timeframe**

2017 - Ongoing

**Observer contribution**

France Germany Italy Japan China Switzerland U.K. Nordic Council UN-ECE EU

**Contact**

AMAP Secretariat [amap@amap.no](mailto:amap@amap.no)

AMAP

**AC Leads:**CAN FIN ICE KOD NOR RUS SWE USA AAC AIA  
GCI ICC RAIPON Saami Council**Status:**

On track

## 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.

**SAO Notes****Deliverables 2023****Coordination with others**

EPPR, PAME, SDWG, CAFF, ACAP

**Permanent Participant Engagement**

Ongoing engagement of PPs in development of AMAP monitoring programme

**Traditional Knowledge and Local Knowledge**

PP expertise in collection of some types of samples;  
Community-based monitoring; TLK in relation to monitoring data interpretation; Used in prioritisation for parts of programme

**Timeframe**

Pre2000 - Ongoing

**Observer contribution**

Nordic Council UNEP

**Contact**

AMAP Secretariat amap@amap.no

AMAP

**AC Leads:**

CAN NOR

**Status:**

On track

## Arctic marine microplastics and litter

AMAP is following 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 is to develop the monitoring programme and guidelines to accompany the mentioned action plan.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2018 - Ongoing

#### Coordination with others

ACAP, CAFF, PAME

#### Observer contribution

Germany Italy

#### Permanent Participant Engagement

Consultations at HoDs and WG meetings. Participants in Expert Group

#### Contact

AMAP Secretariat, [amap@amap.no](mailto:amap@amap.no)

#### Traditional Knowledge and Local Knowledge

AMAP

**AC Leads:**

NOR SWE USA

**Status:**

On track

## Climate Issues: Cryosphere, meteorology, ecosystem impacts

Climate work has contributed to IPCC AR6 Report. Production is nearly completed of 2021 report that includes chapters on key climate indicators, extreme events, Arctic/mid-latitude weather connections, performance of global models in the Arctic, and an initial review of societal impacts of climate change. A scoping document and implementation plan to assess impacts of climate change on Arctic marine and terrestrial ecosystems and ecosystem feedbacks to climate, with CAFF, has been prepared. Further work is under way to assess societal impacts of climate change, with strong participation of PPs, with the aim of a first report in 2023. Develop materials for outreach.

**SAO Notes****Deliverables 2023****Coordination with others**

CAFF, SDWG

**Permanent Participant Engagement**

Local and regional observations of climate-related changes in Arctic ecosystems. PPs involved in development of assessment of societal impacts of cc in Arctic communities and identification of ecosystem impacts of cc under the AMAP/CAFF project.

**Traditional Knowledge and Local Knowledge**

Local and regional observations of climate-related changes in Arctic ecosystems

**Timeframe**

2018 - Ongoing

**Observer contribution**

WMO WWF Japan Korea

**Contact**

AMAP Secretariat amap@amap.no

AMAP

**AC Leads:**

CAN KOD SWE

**Status:**

On track

## Contaminant issues: POPs and mercury

AMAP's POPs and mercury expert groups will produce updated assessment and work components as follows:

(1) 2021/23: Assessment of the relative importance of local vs long-range transported CEACs for delivery in 2023

(2) 2021/23: Review and update of AMAP monitoring guidelines

(3) 2021/23: Contributions to Stockholm and Minamata Convention Effectiveness Evaluations, and relevant sub-groups (e.g. POPRC, Minamata global monitoring consultations, etc.)

**SAO Notes****Deliverables 2023****Coordination with others**

ACAP, PAME

**Permanent Participant Engagement**

Participation in relevant expert groups

**Traditional Knowledge and Local Knowledge**

Case-study contributions to mercury assessment

**Timeframe**

2018 - Ongoing

**Observer contribution**

Nordic Council UNEP France U.K. Korea

**Contact**

AMAP Secretariat amap@amap.no

AMAP

**AC Leads:**

NOR RUS

**Status:**

On track

## Contaminant issues: Radioactivity

Continuing review of the radioactivity status of the Arctic. Assessment report by 2023.

### SAO Notes

#### Deliverables 2023

#### Coordination with others

EPPR

#### Permanent Participant Engagement

#### Traditional Knowledge and Local Knowledge

#### Timeframe

2015 - Ongoing

#### Observer contribution

Netherlands

#### Contact

AMAP Secretariat [amap@amap.no](mailto:amap@amap.no)



AMAP

**AC Leads:**

CAN KOD

**Status:**

On track

## Human Health and combined effects

Further develop AMAP initiative on human health, particularly biomonitoring and cohort studies and health effects of contaminants. HHAG has finalized an update assessment of POPs and Hg exposure and health effects, as well as a review of dietary transitions and their health effects; HHAG has also updated AMAP guidelines for circumpolar monitoring of contaminants. New work will include studies of zoonoses and contaminant-mediated immunosuppression.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2017 - Ongoing

#### Coordination with others

#### Observer contribution

SDWG

IUCH

#### Permanent Participant Engagement

#### Contact

PPs are involved with all aspects of the project, but particularly with issues related to dietary exposure to environmental contaminants and dietary advisories, as well as contribution of information on dietary transitions and their health effects.

AMAP Secretariat amap@amap.no

#### Traditional Knowledge and Local Knowledge

TLK is important in relation to issues related to consumption of subsistence and country foods and providing culturally appropriate dietary advice in relation to contaminants.

AMAP

**AC Leads:**

ICE NOR USA CAN FIN KOD RUS SWE ICC

**Status:**

On track

## 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.

### SAO Notes

#### Deliverables 2023

#### Coordination with others

All AC Working Groups are invited to have a seat in the SAON Board

#### Permanent Participant Engagement

All PPs are invited to have a seat in the SAON Board and Committees. One PP representative has a seat in the SAON Executive Committee

#### Traditional Knowledge and Local Knowledge

This is an integrated part of the SAON Strategy. The 'Atlas of Community-Based Monitoring & Indigenous Knowledge in a Changing Arctic' (<http://www.arcticcbm.org>) is a contribution

#### Timeframe

2012 - Ongoing

#### Observer contribution

France Germany Italy Japan China Poland Korea Spain U.K. ICES  
WMO IASC UArctic EU

#### Contact

SAON Secretariat: Jan Rene Larsen ([jan.rene.larsen@amap.no](mailto:jan.rene.larsen@amap.no))

AMAP

**AC Leads:**

NOR USA

**Status:**

On track

## Unmanned Aircraft Systems (UAS)

Continue work on safety guidelines and demonstrate the use of cross-jurisdictional environmental monitoring

### SAO Notes

#### Deliverables 2023

#### Coordination with others

EPPR

#### Permanent Participant Engagement

#### Traditional Knowledge and Local Knowledge

#### Timeframe

2013 - Ongoing

#### Observer contribution

#### Contact

AMAP Secretariat [amap@amap.no](mailto:amap@amap.no)

CAFF PAME

**AC Leads:**  
USA FIN KOD

**Status:**  
On track

## Information Briefs on Arctic environment under change

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

### SAO Notes

#### Deliverables 2023

#### Timeframe

2021 -

#### Coordination with others

PAME, CAFF

#### Observer contribution

#### Permanent Participant Engagement

As part of the CAFF and PAME Boards provide overview, review and approval of the project proposal

#### Contact

#### Traditional Knowledge and Local Knowledge

Dependant upon the info brief topic

CAFF PAME

**AC Leads:**  
SWE KOD NOR**Status:**  
Completed

## Invasive species

The Arctic Invasive Alien Species (ARIAS) Strategy and Action Plan, produced by CAFF and the Protection of the Arctic Marine Environment (PAME) 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. The actions take environmental, cultural, and economic perspectives into consideration, including drivers, impacts, and response measures.

As part of ARIAS implementation a joint CAFF-PAME project is underway for 2021-2023

### SAO Notes

#### Deliverables 2023

#### Timeframe

2015 - Ongoing

#### Coordination with others

PAME; CAFF

#### Observer contribution

#### Permanent Participant Engagement

As members of CAFF and PAME Boards with overview, review and approval of the project proposal

#### Contact

Tom Barry, tom@caff.is  
Soffia Christensen, soffia@pame.is

#### Traditional Knowledge and Local Knowledge

CAFF

**AC Leads:**

FIN

**Status:**

On track

## Actions for Arctic Biodiversity: Implementing the recommendations of the Arctic Biodiversity Assessment

Components are led by different Arctic States, PPs, WGs and other Arctic Council subsidiary bodies. Implementation of ABA recommendations including projects and activities;

Main activities:

Evaluation of the implementation of ABA recommendations towards the end of the Action plan period; and,

Development of a new Action plan for 2023-30.

### SAO Notes

The Actions for Arctic Biodiversity 2013-2021: implementing the recommendations of the ABA contains targets and activities that are based on the ABA policy recommendations. The current Actions Plan was extended until 2023 due to COVID-related delays in the development of the new Global Framework for Biodiversity (GBF). Between May 2021-February 2023 a new Action Plan will be developed for delivery to the 2023 Arctic Council Ministerial. This is a key CAFF activity under the Finnish Chairmanship of CAFF in 2021-2023. The new Action Plan will be developed to align with the post2020 GBF, to facilitate reporting on how the Arctic as a region is responding to global biodiversity targets and supporting SDGs. CAFF has received support from the Nordic Council of Ministers to facilitate the development of the new Action Plan and part of this entails seeking input from Nordic experts. Canada has also provided support to conduct a similar process with Canadian experts, which is currently underway.

### Deliverables 2023

Actions for Arctic Biodiversity 2023-2030

### Timeframe

2013 - 2023

### Coordination with others

All Working Groups and Task Forces

### Observer contribution

Germany Japan Netherlands China Poland India Korea  
Singapore Spain Switzerland U.K. ICES NAMMCO UNEP Arctic  
Institute of N.A. Reindeer Herders IASC Northern Forum

### Permanent Participant Engagement

PPs contribute to the implementation of several actions; and as part of the CAFF Board guide the implementation actions

### Contact

Tom Barry tom@caff.is

Mia Rönkä, mieron@utu.fi

### Traditional Knowledge and Local Knowledge

TK is used in the application of several actions

CAFF

**AC Leads:****Status:**

On track

## Arctic Biodiversity Data Service (CAFF)

The ABDS is the online, interoperable data management system for biodiversity data generated via the activities of CAFF, including its Circumpolar Biodiversity Monitoring Programme (CBMP). The goal of ABDS is to facilitate access, integration, analysis and display of biodiversity information for scientists, practitioners, managers, policy makers and others working to understand, conserve and manage the Arctic's wildlife and ecosystems.

### SAO Notes

#### Deliverables 2023

Progress report for the Ministerial

#### Timeframe

2012 - Ongoing

#### Coordination with others

PAME

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

Tom Barry tom@caff.is

#### Traditional Knowledge and Local Knowledge

CAFF

**AC Leads:**

CAN NOR RUS USA

**Status:**

On track

## Arctic Migratory Birds Initiative (AMBI): Implementation

This project aims to improve the status and secure the long-term sustainability of declining migratory bird populations that breed in the Arctic. Expected deliverables include progress towards, and achievement of, various actions identified in the AMBI workplan. Implementation of the work plan will continue for the next chairmanship period (until 2023). Focus is on three conservation issues: 1. Habitat destruction/degradation; 2. Unsustainable harvest; 3. Bycatch. Actual work will be undertaken on a flyway basis, with priority issues identified on each flyway. Observers are engaged in a variety of the CBMP expert networks and monitoring group committees

**SAO Notes**

Project depends on continued engagement with Observers. SAO support of this cooperation appreciated.

**Deliverables 2023****Timeframe**

2013 - Ongoing

**Coordination with others****Observer contribution**

France Germany Japan Netherlands China India Korea  
Singapore Spain U.K. UNEP

**Permanent Participant Engagement**

Yes as members of the CAFF Board with overwvie, review and approval of the AMBI workplan

**Contact**

Tom Barry, tom@caff.is

Courtney Price courtney@caff.is

Evgeny Syroechkovskiy, Russia ees\_jr@yahoo.co.uk

**Traditional Knowledge and Local Knowledge**

Some actions/components of the Americas flyway incorporate TK; with efforts underway to more emaningfully engage PPs and IK in AMBI



CAFF

**AC Leads:**

GCI

**Status:**

On track

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

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

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

**SAO Notes****Deliverables 2023****Timeframe**

2019 - 2023

**Coordination with others**

EPPR, and all other Arctic Council WGs and Expert Group on Black Carbon

**Observer contribution****Permanent Participant Engagement**

PP led initiative

**Contact**

Tom Barry, tom@caff.is

Michael Young, youngm2@state.gov

**Traditional Knowledge and Local Knowledge**

Devlin Fernandes, gci.executivedirector@gmail.com

CAFF

**AC Leads:****Status:**

On track

## CAFF IASC Fellowship

As two international organizations based in Akureyri, Iceland, the Conservation of Flora and Fauna (CAFF, [www.caff.is](http://www.caff.is)) and the International Arctic Science Committee (IASC, [www.iasc.info](http://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. The second cohort is currently underway.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2017 - Ongoing

#### Coordination with others

#### Observer contribution

IASC

#### Permanent Participant Engagement

#### Contact

Tom Barry [tom@caff.is](mailto:tom@caff.is)

#### Traditional Knowledge and Local Knowledge

Gerlis Fugman, [gerlis.fugmann@iasc.info](mailto:gerlis.fugmann@iasc.info)

CAFF

**AC Leads:**

USA FIN

**Status:**

On track

## CAFF Youth Engagement Strategy 2021-2026

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

- Organizing youth exchanges (e.g., between youth from Iceland , Finland, Norway, Sweden, and the United States);
- Supporting the creation of an independent global net-- - Providing experience and insight into how biodiversity is-- - Empowering youth to engage in conservation and promotion of Arctic biodiversity in their own home countries; - Development of plan to impelement the CAFF Youth Engagement Strategy that guides CAFF's efforts until 2026.
- Development of a writing competition on the value of Arctic nature and biodiversity.

**SAO Notes**

CAFF Youth Strategy to engage youth, 2021-2026 approved by SAOs

**Deliverables 2023****Timeframe**

2014 - Ongoing

**Coordination with others****Observer contribution**

WWF

**Permanent Participant Engagement****Contact**

Yes as CAFF Board members review and approval process

Tom Barry tom@caff.is

**Traditional Knowledge and Local Knowledge**

CAFF

**AC Leads:**

CAN USA

**Status:**

On track

## CBMP Coastal Biodiversity Monitoring Plan: implementation

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.

- 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.

**SAO Notes****Deliverables 2023****Timeframe**

2014 - Ongoing

**Coordination with others****Observer contribution****Permanent Participant Engagement**

ICC-Alaska active member of expert network

**Contact**

Tom Barry tom@caff.is

Sierra Fletcher, Sierra@nukaresearch.com

**Traditional Knowledge and Local Knowledge**

Coastal Expert Network adopting a co-management approach to developing the Arctic Coastal Biodiversity Monitoring Plan

CAFF

**AC Leads:**

SWE CAN

**Status:**

On track

## CBMP Freshwater Biodiversity Monitoring group: implementation

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 terrestrial plan further work is underway to continue to assess the state of the ecosystem and national implementation.

**SAO Notes****Deliverables 2023****Timeframe**

2021 - Ongoing

**Coordination with others****Observer contribution**

AMAP

**Permanent Participant Engagement****Contact**

Tom Barry, tom@caff.is

**Traditional Knowledge and Local Knowledge**

Tom Christensen, Greenland/Denmark toch@dmu.dk

Jen Lento, jlento@gmail.com

CAFF

**AC Leads:**

KOD USA

**Status:**

On track

## CBMP Indicators

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.

- 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.

**SAO Notes****Deliverables 2023****Timeframe**

2001 - Ongoing

**Coordination with others**

PAME, UNEP

**Observer contribution****Permanent Participant Engagement****Contact**

Tom Barry tom@caff.is

**Traditional Knowledge and Local Knowledge**

Dependant upon the indicator to be developed

Tom Christensen, Greenland/Denmark toch@dmu.dk

Catherine Coon, US, catherine.coon@boem.gov

CAFF

**AC Leads:**

ICE NOR

**Status:**

On track

## CBMP Marine Biodiversity Monitoring group: implementation

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.

- 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.

The State of the Arctic Marine Biodiversity Report was released in 2017. Updates completed for 2021 Sea birds and Marine Mammals

**SAO Notes****Deliverables 2023****Timeframe**

2009 - Ongoing

**Coordination with others**

AMAP, PAME

**Observer contribution**

ICES NAMMCO

**Permanent Participant Engagement****Contact**

Tom Barry tom@caff.is

**Traditional Knowledge and Local Knowledge**

Tom Christensen (Greenland/Denmark) toch@dmu.dk

CAFF

**AC Leads:**

ICE USA

**Status:**

On track

## CBMP Terrestrial Biodiversity Monitoring group

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.

- 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.

The Terrestrial Biodiversity Monitoring Group finalized the State of the Arctic Terrestrial Biodiversity Report (START) which was delivered to the May Ministerial. Work is now beginning to follow-up on the outcomes of the START

### SAO Notes

#### Deliverables 2023

#### Timeframe

2011 - Ongoing

#### Coordination with others

#### Observer contribution

AMAP

France Switzerland IASC

#### Permanent Participant Engagement

#### Contact

Tom Barry tom@caff.is

#### Traditional Knowledge and Local Knowledge

Tom Christensen (Greenland/Denmark) toch@dmu.dk



CAFF

**AC Leads:**

KOD USA

**Status:**

On track

## Circumpolar Biodiversity Monitoring Program (CBMP) - General

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

**SAO Notes**

CBMP Strategic plan 2021-2025 approved by the CAFF board at the CAFF biennial and approved by the SAOs

**Deliverables 2023****Coordination with others**

AMAP, PAME

**Permanent Participant Engagement**

PPs are engaged in some parts of the CBMP; and as CAFF Board members are engaged in overview and guidance of the programme

**Traditional Knowledge and Local Knowledge**

Yes for example CBMP-Coastal is applying a co-production of knowledge approach, bringing together science and Indigenous Knowledge in an equitable way, when developing products that synthesize information from around the circumpolar Arctic.

**Timeframe**

2001 - Ongoing

**Observer contribution**

Netherlands U.K. Japan France Germany

**Contact**

Tom Barry, tom@caff.is

Tom Christensen, Greenland/Denmark toch@dmu.dk

Catherine Coon, US, catherine.coon@boem.gov

CAFF

**AC Leads:**

NOR USA

**Status:**

On track

## Climate change impacts on bearded seals

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.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2016 - Ongoing

#### Coordination with others

#### Observer contribution

NAMMCO

#### Permanent Participant Engagement

ICC Alaska

#### Contact

Tom Barry tom@caff.is

#### Traditional Knowledge and Local Knowledge

CAFF

**AC Leads:**

AIA

**Status:**

On track

## Community Observation Network for Adaptation and Security (CONAS)

The project seeks to utilize human observers to document environmental changes, significant to understanding pan-arctic processes.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2014 -

#### Coordination with others

#### Observer contribution

#### Permanent Participant Engagement

PP led initiative

#### Contact

Tom Barry, tom@caff.is

Liza Mack, liza.mack@aleut-international.org

#### Traditional Knowledge and Local Knowledge

A community based observing network (CBON), which connects people bound by a common geographic area – who share similar traditions, values, and ideals – and who are also experiencing environmental and globalization changes.

CAFF

**AC Leads:**

RUS

**Status:**

On Hold

## Conservation of biodiversity in a changing Russian Arctic

Assessment activity

\*awaiting Global Environment Facility Decision

### **SAO Notes**

Subject to GEF funding issues

### **Deliverables 2023**

### **Coordination with others**

### **Permanent Participant Engagement**

### **Traditional Knowledge and Local Knowledge**

### **Timeframe**

2011 - Ongoing

### **Observer contribution**

### **Contact**

Evgeny Syroechkovskiy ees\_jr@yahoo.co.uk

CAFF

**AC Leads:**

**Status:**

On track

## Follow-up on Arctic Council cross-cutting initiatives

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

### SAO Notes

#### Deliverables 2023

#### Timeframe

2017 - Ongoing

#### Coordination with others

#### Observer contribution

All Arctic Council subsidiary bodies

#### Permanent Participant Engagement

#### Contact

#### Traditional Knowledge and Local Knowledge

CAFF

**AC Leads:**

USA

**Status:**

On track

## Mainstreaming Arctic Biodiversity

This project seeks to incorporate biodiversity objectives and provisions into all Arctic Council work and encourage the same for ongoing and future international standards, agreements, plans, operations and/or other tools specific to development in the Arctic. This includes, but is not restricted to, oil and gas development, shipping, fishing, tourism, and mining. Phase 2 delivered a progress report to the May 2021 Ministerial with suggestions for next steps. Focus is currently on communicating the outcomes of the previous work and coordinating with PAME on their mining work

### SAO Notes

#### Deliverables 2023

#### Timeframe

2017 - Ongoing

#### Coordination with others

#### Observer contribution

PAME

UNEP

#### Permanent Participant Engagement

#### Contact

A coordinated effort to develop best management practices for an industry is of relevance for indigenous peoples. PPs engaged in the previous phases as part of project meetings, committee and outreach.

Tom Barry tom@caff.is

gilbert\_castellanos@fws.gov

#### Traditional Knowledge and Local Knowledge

Traditional and Local Knowledge are not a focus of this project.

CAFF

**AC Leads:**

RUS Saami Council

**Status:**

On track

## Nomadic herders: enhancing resilience of pastoral ecosystems and livelihoods

Enhancing capacity of indigenous reindeer herders to reduce land degradation, improve the provision of ecosystem services and increase community resilience

### SAO Notes

#### Deliverables 2023

#### Coordination with others

SDWG

#### Permanent Participant Engagement

PP co-led initiative

#### Traditional Knowledge and Local Knowledge

Project seeks to use TK to increase the resilience and capacity of the nomadic communities to adapt to change.

#### Timeframe

2012 - Ongoing

#### Observer contribution

Reindeer Herders

#### Contact

Evgeny Syroechkovskiy ees\_jr@yahoo.co.uk

Svein Mathiesen svein.d.mathiesen@reindeercentre.org

Tom Barry tom@caff.is

CAFF

**AC Leads:**

AAC AIA GCI ICC RAIPON Saami Council

**Status:**

On track

## Salmon People of the Arctic

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. The project was delayed but work underway to now complete phase 1 in early 2022

Awaiting info- longer time required to incorporate feedback review from TK holders

Decided at the CAFF meeting February 2020 to change the name of the project to Salmon People of the Arctic instead of Salmon peoples of Arctic rivers as it was more representative of the objectives of the project and more inclusive considering salmon spending large parts of their life in the ocean.

### SAO Notes

#### Deliverables 2023

Phase 1 project report

#### Timeframe

2013 -

#### Coordination with others

#### Observer contribution

#### Permanent Participant Engagement

All PPs are represented on the project steering group

#### Contact

Tom Barry, tom@caff.is

Michael Stickman mickeystickman@gmail.com

#### Traditional Knowledge and Local Knowledge

This project involves both IK holders and scientists in designing an assessment of freshwater river systems based on IK



CAFF

**AC Leads:**

SWE

**Status:**

On track

## Scoping for Resilience and Management of Arctic Wetlands

The purpose of the Resilience and management of Arctic Wetlands (RAW) initiative is to strengthen engagement on the roles and functions of wetlands as a resource to support sustainable development and resilience in the Arctic. It delivered in May 2021 to meeting of the Foreign Ministers of the Arctic States a series of 13 Key Findings and 20 policy and management recommendations designed to act on these Key Findings. A implementation Plan to follow-up on the key findings and recommendations has been approved by CAFF.

**SAO Notes****Deliverables 2023****Timeframe**

2017 - Ongoing

**Coordination with others****Observer contribution****Permanent Participant Engagement**

Permanent Participants will be engaged in each stage of the project to ensure that the project will be of relevance to Arctic indigenous peoples.

**Contact**

Tom Barry tom@caff.is

David Schonberg-Alm David.Schonberg-Alm@naturvardsverket.se

**Traditional Knowledge and Local Knowledge**

One project outcome has been the Arctic Wetlands and Indigenous Peoples Study (AWIPS) an assessment of Indigenous participation in protected area management across the Arctic.

CAFF

**AC Leads:**

FIN

**Status:**

On track

## Seabird program

This expert group coordinates the conservation of Arctic seabirds and enhances the exchange of information on factors affecting status and trends in Arctic seabirds. Main activities: Activities of CBird include the implementation of seabird conservation strategies, several items on the AMBI Circumpolar flyway workplan and the Circumpolar Seabird Monitoring Plan. Other activities include data compilation, analysis, and coordination. Expected deliverables: assessments, technical reports, strategies, data, and meetings. Chaired by Finland but with different components led by other Arctic states and Observers.

**SAO Notes****Deliverables 2023****Timeframe**

Pre2000 - Ongoing

**Coordination with others****Observer contribution**

France Netherlands U.K.

**Permanent Participant Engagement****Contact**

Mia Rönkä miaron@utu.fi

**Traditional Knowledge and Local Knowledge**

Tom Barry tom@caff.is

CAFF

**AC Leads:**  
SWE NOR KOD

**Status:**  
Completed

## Second Arctic Biodiversity Congress

Contribute to the Implementation of the Action Plan for Biodiversity

### SAO Notes

Actions for Biodiversity: Implementation of the Arctic Biodiversity Assessment (ABA) Recommendations: Progress Report submitted for the March SAO meeting

### Deliverables 2023

### Timeframe

2021 - 2023

### Coordination with others

PAME

### Observer contribution

NAMMCO UNEP IASC NatGeo Northern Forum UArctic WWF

### Permanent Participant Engagement

PP representatives sit on the Program Advisory Committee

### Contact

Tom@caff.is

toch@bios.au.dk

### Traditional Knowledge and Local Knowledge

It is anticipated that TK will be used throughout the program and is dependant on submissions

CAFF

**AC Leads:**

RUS FIN

**Status:**

Awaiting Info

## Third Arctic Biodiversity Congress

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

**SAO Notes**

Awaiting further details regarding timing and plans for the Congress

**Deliverables 2023**

Congress outcomes

**Timeframe**

-

**Coordination with others**

All Arctic Council subsidiary bodies

**Observer contribution****Permanent Participant Engagement**

All PPs to be engaged in the Congress development and participation in the event itself

**Contact****Traditional Knowledge and Local Knowledge**

CAFF

**AC Leads:**

USA

**Status:**

Completed

## Traditional Knowledge and CAFF

This progress report provides a brief progress report on how TK is being approached within CAFF.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2016 - Ongoing

#### Coordination with others

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

gilbert\_castellanos@fws.gov

#### Traditional Knowledge and Local Knowledge

Tom Barry tom@caff.is

EPPR PAME

**AC Leads:**

NOR

**Status:**

On track

## Environmental toxicity and fate of light and intermediate fuel when spilled in cold waters

The objective is to gather knowledge and explain the large variation in environmental toxicity of light and intermediate fuel oil. This is a joint project proposal by PAME and EPPR.

PAME anticipates finalizing and approving this project proposal intersessionally in coordination and consultation with EPPR.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2021

#### Coordination with others

Joint project with EPPR.

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

EPPR

**AC Leads:**

FIN

**Status:**

On track

## Analysis of Potential Radiological Consequences of Selected Emergencies Relevant for the Arctic Region

The objective of the project is to provide an analysis of potential radiological consequences of selected nuclear or radiological emergencies relevant for the Arctic region. The project will develop a consensus report among the EPPR Radiation Expert Group on the potential radiological consequences of selected nuclear or radiological emergencies that could take place in the Arctic region.

**SAO Notes**

The project was approved in EPPR-I in June 2021 as a follow-up project building on the Risks project technical report. The project work begun with a selection of scenarios for the project in consultation with the Consequences project under the RAD EG, as same scenarios will be used in both projects.

**Deliverables 2023**

A final report of the project is planned to be submitted as a deliverable in 2023.

**Timeframe**

2021 - 2022

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

Aleksi Mattila, aleksi.mattila@stuk.fi

**Traditional Knowledge and Local Knowledge**

EPPR

**AC Leads:**

NOR

**Status:**

On track

## Arctic Lessons Learned Arena

Arctic Lessons Learned Arena project was approved intersessionally in June 2020 aiming to build an easy to use database of best practices and experiences for emergency preparedness and response entities, relevant stakeholder groups in EPPR, and academia, by sharing after action reports, identifying key capability gaps and best practices, assisting in evaluation and planning of exercises and providing a tool for analysis.

### SAO Notes

An agency to develop the technical solution has been hired after mapping out the key features and possible platforms and the demo version of the platform is ready and was showcased in EPPR January meeting. The development of the platform continues and most recent update is awaited at EPPR-II 2021 on 22-24 November.

### Deliverables 2023

### Timeframe

2020 - 2021

### Coordination with others

### Observer contribution

### Permanent Participant Engagement

### Contact

Tore Hongset, th@jrcc-bodoe.no

### Traditional Knowledge and Local Knowledge

Emmi Ikonen, emmi.susanna.ikonen@jrcc-bodoe.no



EPPR

**AC Leads:**

RUS

**Status:**

On track

## 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.

### SAO Notes

Next conference planned to be held in October 2020 in Kaliningrad was postponed, and the current plan is to hold the event in conjunction with EPPR-II meeting in December 2021 hosted by Russian Federation, circumstances allowing.

### Deliverables 2023

### Timeframe

- Ongoing

### Coordination with others

Not applicable

### Observer contribution

### Permanent Participant Engagement

### Contact

Tatiana Naumova, RF emercom-t@yandex.ru

### Traditional Knowledge and Local Knowledge

EPPR

**AC Leads:**

CAN NOR

**Status:**

On track

## Capability Analysis to respond to a Radiological/Nuclear Emergency in the Arctic

The objective of the project is to analyse available capabilities to respond to a radiological/nuclear (RN) emergency in the Arctic, and propose a way forward for any identified gaps. The project will develop a consensus report among the EPPR Radiation Expert Group on capabilities to respond to a RN emergency in the Arctic.

**SAO Notes**

The project was approved in EPPR-I in June 2021 as a follow-up project building on the Risks project technical report. The project work begun with a selection of scenarios for the project in consultation with the Consequences project under the RAD EG, as same scenarios will be used in both projects. A consultant has been hired and the gathering of the material for the report has started.

**Deliverables 2023**

Final report of the project is planned to be a deliverable in 2023.

**Timeframe**

2021 - 2022

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

Øyvind Aas-Hansen oyvind.aas-hansen@dsa.no

**Traditional Knowledge and Local Knowledge**

Dominique Nsengiyumva dominique.nsengiyumva@hc-sc.gc.ca

EPPR

**AC Leads:**

GCI USA

**Status:**

On track

## Circumpolar Fire

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

### SAO Notes

The project steering committee meets regularly and has started gathering material for the project and sharing information, that the project coordinators review and work with. The US has joined the project as a co-lead. A Wildland fire Sharing Circle was organized online 17-18 November jointly by CAFF and EPPR, led by GCI, to share information among both Arctic Council and external projects related to Arctic Wildland fires. Joint workshop with CAFF is been planned for 2022.

### Deliverables 2023

#### Coordination with others

Coordination with CAFF wildland fire project and other related initiatives in the Council are ongoing.

#### Permanent Participant Engagement

GCI is the project lead.

### Timeframe

2019 - Ongoing

### Observer contribution

### Contact

Edward Alexander/gciadmin@gwichin.nt.ca

### Traditional Knowledge and Local Knowledge

Co-production of knowledge, documentation, better understanding of fire management practices of Indigenous peoples, particularly in Arctic contexts.

EPPR

**AC Leads:**

USA NOR

**Status:**

On track

## 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.

**SAO Notes**

At EPPR-I 2020 meeting, the need to update the SAR Agreement for administrative purposes in accordance with Article 10, and the procedures regarding the update were discussed. SAR EG is looking closer into the details.

**Deliverables 2023****Timeframe**

2013 - Ongoing

**Coordination with others****Observer contribution****Permanent Participant Engagement**

PPs are welcome to participate in the work of the SAR Expert Group.

**Contact**

SAR EG Chair Ben Strong (USA) Benjamin.m.strong@uscg.mil  
SAR EG Vice Chair Tore Hongset (NOR) Tore.Hongset@jrcc-bodoe.no

**Traditional Knowledge and Local Knowledge**

EPPR

**AC Leads:**

RUS

**Status:**

On track

## 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)

**SAO Notes**

In support of this project, emergency response exercises are undertaken annually. Latest exercise "Safe Arctic" was organized in September 2021 in Murmansk, under the Arctic Council Chairmanship of the Russian Federation by EMERCOM in cooperation with other stakeholders.

**Deliverables 2023****Timeframe**

- Ongoing

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

EPPR HoD of RF Irakly Arabidze, ati30@mail.ru

**Traditional Knowledge and Local Knowledge**

Tatiana Naumova, RF emercom-t@yandex.ru

EPPR

**AC Leads:**

CAN NOR

**Status:**

On track

## 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 the prevention focus area, with PAME as co-lead. The report and matrix are regularly circulated to States, PPs, Working Groups, and other relevant bodies.

**SAO Notes**

No update for the Ministerial meeting in 2021 was be submitted this time.

**Deliverables 2023****Timeframe**

2015 - Ongoing

**Coordination with others**

Co-lead with PAME. Regular outreach with interested stakeholders.

**Observer contribution**

India Singapore Spain

**Permanent Participant Engagement**

PPs are asked to submit relevant information regarding implementation of objectives outlined in the FPOPP.

**Contact**EPPR [eppr@arctic-council.org](mailto:eppr@arctic-council.org)**Traditional Knowledge and Local Knowledge**

EPPR

**AC Leads:**

CAN KOD NOR USA

**Status:**

On track

## International Cooperation on Aerial Surveillance ICAMS

The project aims to improve understanding of the capacity and capabilities of national aerial surveillance programs across Arctic States for emergencies related to EPPR's mandate. A suite of actions is envisioned to promote exchanges of information, knowledge and experiences relevant to planning and mounting response operations in harsh and remote Arctic conditions.

**SAO Notes**

The project was approved in EPPR-I 2021. The project management team has begun the work by developing and circulating a questionnaire to Arctic States, PPs and Observers. Online information sharing sessions are planned for November and December 2021.

**Deliverables 2023**

A final report will be finalized by the end of 2022. The report will be submitted as a Ministerial deliverable in 2023.

**Timeframe**

2021 - 2022

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**Adelle Ferguson, [adelle.ferguson@dpo-mpo.gc.ca](mailto:adelle.ferguson@dpo-mpo.gc.ca)**Traditional Knowledge and Local Knowledge**

EPPR

**AC Leads:**

CAN NOR

**Status:**

On track

## Maintain and update the Operational Guidelines, appendix to the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response

Maintain and update the Operational Guidelines of MOSPA as required.

**SAO Notes**

EPPR in cooperation with the ACGF finalized the drafting of the after action report of the successful Arctic Guardian/MOSPA 2021 Exercise that took place in April 2021 in an online format. The report is up for approval in EPPR-II 2021. MER EG has finalized an administrative update of the Operational Guidelines and a new version has been approved and uploaded to OAA. The After Action Report of the joint EPPR-ACGF MOSPA Tabletop Exercise from October 2020 was a deliverable in Reykjavik 2021 Ministerial.

**Deliverables 2023**

Joint EPPR-ACGF Arctic Guardian/MOSPA 2021 Exercise After Action Report is planned to be submitted as a Ministerial Deliverable in 2023.

**Timeframe**

2013 - Ongoing

**Coordination with others**

EPPR Chair will share the after-action reports with other WGs.

**Observer contribution****Permanent Participant Engagement****Contact**

MER EG Chair Dan Cowan (CAN) dan.cowan@dfo-mpo.ca

MER EG Vice-Chair Ole Kristian Bjerkemo (NOR)  
ole.kristian.bjerkemo@kystverket.no

**Traditional Knowledge and Local Knowledge**

Joanne Munroe (CAN) joanne.munroe@neb-one.gc.ca



EPPR

**AC Leads:**

NOR USA

**Status:**

Completed

**NEPTUNE**

The NEPTUNE project was approved intersessionally in June 2020, aiming at investigating if expedition cruise vessels can be utilized as a resource in Arctic oil spill preparedness and response. Arctic Expedition Cruise Operators, AECO, is a project partner.

**SAO Notes**

The final report was approved in EPPR-I 2021.

**Deliverables 2023**

The final report is planned to be submitted as a deliverable in 2023.

**Timeframe**

2020 - 2021

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

Synnøve Lunde, NCA, [synnove.lunde@kystverket.no](mailto:synnove.lunde@kystverket.no)

**Traditional Knowledge and Local Knowledge**

EPPR

**AC Leads:**

CAN KOD NOR USA AIA

**Status:**

On track

## Prevention, Preparedness and Response for Small Communities

Three deliverables were approved by Ministers in May 2017 from the first phase of the project. An interactive map displaying the data from the survey made, a database of survey responses, and a resource guide in the form of a short brochure to share with small communities. Phase II of the project produced a 10 minutes awareness video on response principles. The video can be viewed as a whole, or in shorter segments. The video was approved by Ministers in May of 2019. In Phase IV a third outreach video is being developed.

**SAO Notes**

Project partners US, Canada, AIA and Norway, in cooperation with a production company, have finalized a second outreach video on oil pollution risk and impact to communities, which was launched in December 2020. The video is a Ministerial deliverable in 2021, and the project will continue with Phase IV and a third educational outreach video, which is currently under development.

**Deliverables 2023****Coordination with others**

AIA and other PPs. CAFF and PAME have been informed of the project, and expertise where relevant is welcome. PAME noted MEMA database as an option for cataloging results.

**Permanent Participant Engagement**

AIA is a co-lead.

**Traditional Knowledge and Local Knowledge****Timeframe**

2014 - Ongoing

**Observer contribution****Contact**

Ole Kristian Bjerkemo (NOR) ole-kristian.bjerkemo@kystverket.no

Karen Pletnikoff, (AIA) karenp@apiai.org

EPPR Secretariat eppr@arctic-council.org

EPPR

**AC Leads:**

NOR CAN

**Status:**

On track

## Risks Project (RAD EG)

The objective of the project is to define the risk potential for emergencies due to nuclear/radiological material and activities that pose a threat in the Arctic. The project will develop a consensus report on identified objects and -activities which may involve a potential risk for acute radiological/nuclear incidents (emergency situation) in the Arctic.

### SAO Notes

A full technical report of the project is in finalizing phase and will be submitted up for approval shortly. The RAD EG produced a summary consensus report that was a Ministerial deliverable in Reykjavik in 2021.

### Deliverables 2023

### Timeframe

2020 - 2021

### Coordination with others

AMAP

### Observer contribution

### Permanent Participant Engagement

### Contact

RAD EG Chair Øyvind Aas-Hansen oyvind.aas-hansen@dsa.no

### Traditional Knowledge and Local Knowledge

EPPR

**AC Leads:**

USA

**Status:**

On track

## Validation of International Maritime Organization Polar Code Survival Time Requirement

This project is a follow-up to previous presentations to the EPPR on the IMO Polar Code and search and rescue exercises (SARex) conducted by the University of Stavanger, Norway. Additional discussion on survival time and time to rescue has been identified in several other search and rescue exercise after action reports and questions the validity of the IMO Polar Code maximum expected time of rescue.

**SAO Notes**

The project was approved intersessionally 28 October 2021 and the work will begin shortly.

**Deliverables 2023**

The final product of this project will be a consensus report detailing the viability of the IMO Polar Code five-day survivability requirement. A short summary report will also be produced as a potential Ministerial deliverable.

**Timeframe**

2021 - Ongoing

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

Ben Strong, Benjamin.M.Strong@uscg.mil

**Traditional Knowledge and Local Knowledge**

**Expert Group****AC Leads:**

ICE

**Status:**

On track

## Expert Group in support of implementation of the Framework for Action on Black Carbon and Methane (EGBCM)

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.

**SAO Notes**

The Expert Group held its first meeting during the IS Chairmanship in October 2019. The group held two online working meetings in the fall of 2020, and an online meeting in January 2021 to work on the 3rd Summary Report. In addition, the Chair has convened teleconferences with the sector leads and the Chair's writing group. An additional meeting is planned for 3 March 2021 to finalize remaining questions and approve the 3rd Summary Report. Finland, Kingdom of Denmark, Iceland, Norway, Sweden and Canada have submitted their national reports, in addition to nine Observer States and the EU.

**Deliverables 2023****Coordination with others**

ACAP and AMAP are involved in the work of the group. The EGBCM has also consulted other Working Groups in the Summary Report process.

**Permanent Participant Engagement**

All PPs were invited to nominate a representative to the EGBCM. However, after fall 2019 there has not been active PP representation. In January 2021, PPs were invited to comment on a Summary Report draft. Some inputs were received.

**Traditional Knowledge and Local Knowledge****Timeframe**

2015 - Ongoing

**Observer contribution**

Germany Italy Japan Poland Spain Switzerland EU U.K. France India

**Contact**

Chair Kristín Linda Árnadóttir  
Kristin.Linda.Arnadottir@landsvirkjun.is

Arctic Council Secretariat [acs@arctic-council.org](mailto:acs@arctic-council.org)

PAME CAFF

**AC Leads:****Status:**

On track

## Arctic Protected and Important Areas

CAFF and PAME will work jointly to update the 2017 Arctic Protected Areas Indicator Report (APAI) to incorporate protected areas established since 2017.

The APAI data will be compared to the data for the Arctic in the ProtectedPlanet database, managed by the United Nations Environment World Conservation Monitoring Centre. The purpose of this comparison is to determine differences between the two databases and update each database accordingly.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2017 - 2021

#### Coordination with others

#### Observer contribution

CAFF

#### Permanent Participant Engagement

#### Contact

Tom Barry tom@caff.is

#### Traditional Knowledge and Local Knowledge

Soffia Gudmundsdottir pame@pame.is

PAME CAFF

**AC Leads:**  
CAN KOD NOR

**Status:**  
On track

## Marine Invasive Alien Species in Arctic Waters

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

-

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**

PAME CAFF

**AC Leads:**

CAN KOD USA

**Status:**

On track

## Other Effective Area-based Conservation Measures (OECM) in the Arctic Marine Environment

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

**SAO Notes****Deliverables 2023**

OECM Report

**Timeframe**

2021 -

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

KoD, Canada, USA

**Traditional Knowledge and Local Knowledge**



PAME EPPR

**AC Leads:**

NOR

**Status:**

On track

## New Low Sulphur Fuels, Fate, and Behaviour in Cold Water Conditions

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

EPPR: A series of initiatives and regulatory developments over the past several years have given rise to the importance of studying low-sulphur fuel oil in cold sea temperatures, which led to a project proposal that was formally approved by EPPR and PAME in 2020. The project is led jointly by representatives from EPPR and PAME promoting collaboration on a subject that intersects the mandates of these two Working Groups.

**SAO Notes**

EPPR: The project is led jointly by representatives from EPPR and PAME promoting collaboration on a subject that intersects the mandates of these two Working Groups. The project has gathered a lot of interest both from EPPR and PAME sides, including the Observers. The project has five work packages focusing on sections of the project which will be developed further with the participants. Most recent update is awaited at EPPR-II 2021 on 22-24 November.

**Deliverables 2023****Timeframe**

2019 - 2023

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

Ole Kristian Bjerkemo ole.kristian.bjerkemo@kystverket.no

**Traditional Knowledge and Local Knowledge**

Soffia Gudmundsdottir pame@pame.is

PAME

**AC Leads:**

**Status:**

On track

## 4th AMSP Implementation Status Report 2021-2023

To track progress on implementation of the AMSP 40 Strategic Actions and report on its status.

The project will develop the 4th "AMSP Implementation Status Report" in collaboration with other Arctic Council WGs for the period 2021-2023 for submission to the Arctic Council Ministerial meeting in 2023.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2015 - Ongoing

#### Coordination with others

AMAP, CAFF, EPPR, SDWG, ACAP

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

NOR USA

**Status:**

On track

## 7th EA Workshop on values and valuation of the cultural, social and economic goods and services produced by the ecosystems (20-22 Feb 2022)

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

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

2019 - 2022

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

Lis Jorgensen lislin@hi.no

**Traditional Knowledge and Local Knowledge**

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PAME

**AC Leads:**

USA

**Status:**

On track

## A framework for more systematically engaging with Observers on shipping related matters

Develop an approach for more systematically engaging with Observers on PAME's shipping-related work and identify opportunities for Observers to contribute to and/or support such work. PAME will convene one or more workshops during the two-year biennium to advance this project.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2023

#### Coordination with others

#### Observer contribution

Northern Forum Italy Poland Korea

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

CAN FIN ICE KOD NOR RUS SWE USA

**Status:**

On track

## AMSP Implementation Status Report 2019-2021

To track progress on implementation of the AMSP forty strategic actions and develop the 3rd AMSP Implementation Status Report in collaboration with other Arctic Council working groups for the period 2019-2021 for submission to the Arctic Council Ministerial meeting in 2021.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2021

#### Coordination with others

Collaboration with other WG

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

USA RUS

**Status:**

On track

## Arctic Arrangement for Regional Reception Facilities

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

-

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

NOR

**Status:**

On track

## Arctic Coastal Cleanup

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

-

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

ICE CAN

**Status:**

On track

## Arctic Marine Tourism: Development in the Arctic and enabling real change

This project will follow up on recommendations contained in the Arctic Marine Tourism Project: Best Practice Guidelines (AMTP 2015). Main activities include:

- compilation of data on tourism vessels in the Arctic using PAME's ASTD database to better understand recent developments, identify gaps in data, and explore the feasibility to map the use and carriage of Automatic Identification System (AIS) by vessels not obligated to do so by IMO regulations;
- summarizing existing site-specific guidelines for near-shore and coastal areas of the Arctic visited by passengers of marine tourism vessels and pleasure crafts.

A project workshop was held on February 3rd 2020.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2021

#### Coordination with others

#### Observer contribution

U.K.

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge



PAME

**AC Leads:**

USA

**Status:**

On track

## Arctic Port Reception Facilities Inventory

Develop a current inventory of Arctic port reception facilities to assess where there may be infrastructure gaps in light of increasing Arctic shipping traffic.

### SAO Notes

**Deliverables 2023**

**Timeframe**

-

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

USA NOR

**Status:**

On track

## Arctic Ship Traffic Data (ASTD) System

Continue to strengthen the ASTD System by augmenting its functionality and facilitating access to eligible stakeholders. The ASTD was publicly launched on 7 February 2019.

### SAO Notes

ASTD has given the Arctic Council a unique opportunity to analyse Arctic shipping trends - ASTD provides high-quality data for the whole of the Arctic Council and is one of PAME flagship projects.

### Deliverables 2023

### Timeframe

2019 - Ongoing

### Coordination with others

### Observer contribution

### Permanent Participant Engagement

### Contact

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### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**  
CAN USA RUS

**Status:**  
On track

## Arctic Shipping Best Practice Information Forum

The objective is to foster increased use of the Arctic Shipping Best Practices Information Forum web portal and convene annual meetings of participants and continue the development and expansion of the Forum's web portal (arcticshippingforum.is).

### SAO Notes

The 4th Arctic Shipping Best Practice Information Forum annual meeting will take place online 24-25 November 2020.

### Deliverables 2023

### Timeframe

2017 - 2023

### Coordination with others

### Observer contribution

### Permanent Participant Engagement

### Contact

Hjalti Hreinsson hjalti@pame.is

### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

USA

**Status:**

On track

## Arctic Shipping Status Reports

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

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

### SAO Notes

PAME continues to develop the Arctic Shipping Status Reports (ASSR) according to the agreed protocol for consultation with appropriate subject matter experts and Head of Delegation approval prior to issuance. Work is underway with the Russian Federation to finalize and seek intersessional approval for ASSR %234: Shipping in the Northern Sea Route: Comparing 2013 to 2020." Arctic States, PPs, and Observers have been invited to review the informal list of subjects for potential ASSR Reports and provide comments as well as suggestions for future ASSR Reports.

### Deliverables 2023

### Timeframe

2019 - Ongoing

### Coordination with others

### Observer contribution

### Permanent Participant Engagement

### Contact

Hjalti Hreinsson [hjalti@pame.is](mailto:hjalti@pame.is)

### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

FIN ICE

**Status:**

On track

## Black Carbon emissions from shipping activity in the Arctic and technology developments for their reduction

The objective of this project is to strengthen harmonization and foster dialogue and cooperation between the Arctic Council member states, Permanent Participants and Arctic Council Observers on research on various fuel and exhaust gas treatment methods as possible means by which to reduce the amount of harmful gases emitted by vessel engines.

### SAO Notes

**Deliverables 2023**

**Timeframe**

2019 - 2021

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

Soffia Gudmundsdottir pame@pame.is

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:****Status:**

On track

## Capacity building, information outreach and collaboration

- 1) Strengthen information outreach and cooperation and collaboration with international and regional organizations and to build the capacity and engagement of indigenous communities and other Arctic inhabitants.
- 2) Liaise and exchange information with relevant organizations and programs (e.g. UNEP Regional Seas Programme), and other regional programs.
- 3) Encourage activities and proposals from Permanent Participants.

Strive for the development of outreach and communication efforts and plans for PAME's activities (e.g. through updates on the PAME homepage, brochures, roll-up stands, other communication material)

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2021

#### Coordination with others

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

USA

**Status:**

On track

## Collaboration with the Arctic Regional Hydrographic Commission (ARHC)

To foster greater communication between PAME and ARHC in line with the SAO approved (Nov 2019) non-binding MOU between these two bodies to support Arctic maritime safety and the protection of the Arctic marine environment.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2023

#### Coordination with others

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**  
CAN ICE AIA

**Status:**  
On track

## Collect and summarize information on Arctic State safe and low-impact marine corridor initiatives

The objective is to Collect information on best practices for safe and low-impact shipping corridors in the Arctic and contribute to enhanced marine navigation safety

### SAO Notes

**Deliverables 2023**

**Timeframe**

2019 - 2021

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

Soffia Gudmundsdottir pame@pame.is

**Traditional Knowledge and Local Knowledge**



PAME

**AC Leads:**

USA AIA

**Status:**

On track

## Collect, report and/or review information about on-shore use by indigenous peoples and local communities of HFO

The objective is to develop a report summarizing the information collected in a field survey in 2018 and 2019 about on-shore use of heavy fuel oil (HFO) by Indigenous peoples and local communities, as well as the extent to which such peoples and communities rely on ships that burn HFO to deliver supplies and provisions.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2021

#### Coordination with others

#### Observer contribution

SDWG

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

NOR

**Status:**

On track

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

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

### SAO Notes

#### Deliverables 2023

#### Timeframe

-

#### Coordination with others

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

SWE

**Status:**

On track

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

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

**SAO Notes****Deliverables 2023****Timeframe**

2019 - 2021

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

Soffia Gudmundsdottir pame@pame.is

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

FIN USA

**Status:**

On track

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

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

**SAO Notes**

The development of additional Information Briefs on the Arctic marine environment under change is underway and PAME has approved one on ecological connectivity as a joint PAME/CAFF project. The Kingdom of Denmark is in the process of developing a project proposal for an Information Brief on Arctic invasive species. Other PAME members have been invited to submit additional ideas for Information Briefs that are timely and relevant to ongoing PAME and Arctic Council work. Translations of the two Information Briefs on the Arctic marine environment under change, approved at the 2021 Ministerial, into other Arctic State and Indigenous languages.

**Deliverables 2023**

Additional Information Briefs (IBs) on the Arctic marine environment under change

**Timeframe**

2019 - 2021

**Coordination with others**

CAFF

**Observer contribution****Permanent Participant Engagement**

as members of the MPA Expert Group

**Contact**

Elizabeth McLanahan Elizabeth.McLanahan@noaa.gov

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

FIN KOD NOR USA

**Status:**

On track

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

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

**SAO Notes****Deliverables 2023****Timeframe**

-

**Coordination with others****Observer contribution**

AMAP, CAFF, EPPR, SDWG, ACAP

**Permanent Participant Engagement****Contact****Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

NOR

**Status:**

On track

## Develop an overview of Arctic States' and Observer States' interpretation of the Polar Code

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

Based on input from the Arctic States as well as Observer states, a comprehensive overview of Maritime administrations' interpretations of the Code will be developed. This exercise will contribute to the establishment of a 'common ground' for interpretation and give an overview of remaining challenges.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2023

#### Coordination with others

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

CAN USA

**Status:**

On track

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

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

**SAO Notes****Deliverables 2023****Timeframe**

2021 - 2023

**Coordination with others****Observer contribution**

WWF

**Permanent Participant Engagement****Contact****Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

KOD CAN

**Status:**

On track

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

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

-

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**



PAME

**AC Leads:****Status:**

On track

## Expansion and Refinement of the MPA Network Toolbox

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

This work will take into account outcomes from previous MPA workshops (4 workshops), the Modelling Arctic Oceanographic Connectivity study, updating exercise of the Framework for a Pan-Arctic Network of MPAs (2015) (MPA project %234 above), and work on other relevant projects from the 2021-2023 biennium.

### SAO Notes

#### Deliverables 2023

#### Timeframe

-

#### Coordination with others

CAFF

#### Observer contribution

WWF CCU

#### Permanent Participant Engagement

As member to the MPA Expert Group

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

NOR USA

**Status:**

On track

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

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

**SAO Notes****Deliverables 2023****Timeframe**

-

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact****Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:****Status:**

On track

## Implementation Plan for the ARIAS Strategy and Action Plan

PAME Chair, will engage with the CAFF Chair and existing Implementation Coordinating Group (ICG) members to propose a new approach for ARIAS implementation. Implementation actions will be led by different Arctic States, PPs, WGs and other Arctic Council subsidiary bodies.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2021

#### Coordination with others

#### Observer contribution

CAFF

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

NOR USA

**Status:**

On track

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

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

2019 - Ongoing

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

Soffia Gudmundsdottir pame@pame.is

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

NOR

**Status:**

On track

## Interpretation of the Polar Code

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

- Ongoing

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

USA

**Status:**

On track

## Management of Arctic Marine Oil and Gas Associated Noise

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

### SAO Notes

#### Deliverables 2023

#### Timeframe

-

#### Coordination with others

#### Observer contribution

U.K. WWF

#### Permanent Participant Engagement

#### Contact

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

**Status:**

On track

## Marine Litter Communication and Outreach Activities

Development of outreach and communications material in support of the implementation of the ML-RAP including a Communication Plan

Main activities:

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

- Ongoing

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

CAN USA AIA ICC Saami Council

**Status:**

On track

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

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

**SAO Notes****Deliverables 2023**

MEMA Brochure

Possible MEMA outreach videos or other multi-media

**Timeframe**

2019 - 2021

**Coordination with others****Observer contribution****Permanent Participant Engagement**

PPs from ICC, Saami Council, and AIA continue to be involved in developing the MEMA Outreach and Next Steps project. PPs will be critical to translation of the MEMA products into local languages and for distribution to their communities.

**Contact**Laura Strickler [laura.strickler@boem.gov](mailto:laura.strickler@boem.gov)Cathy Coon [catherine.coon@boem.gov](mailto:catherine.coon@boem.gov)Maureen Copley [maureen.copley@canada.ca](mailto:maureen.copley@canada.ca)**Traditional Knowledge and Local Knowledge**

Indigenous Knowledge guided the inquiry of good practices. The use of Indigenous Knowledge and local knowledge was found to be one of the factors in successful meaningful engagement with indigenous Peoples in MEMA Part II Report.



PAME

**AC Leads:**

ICE

**Status:**

On track

## Raising awareness in the Arctic Council of the provisions of the 2012 Cape Town Agreement for the safety of fishing vessels

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

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

### SAO Notes

#### Deliverables 2023

#### Timeframe

2021 - 2023

#### Coordination with others

#### Observer contribution

Spain IMO

#### Permanent Participant Engagement

#### Contact

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

NOR USA

**Status:**

On track

## Report on development in defining or setting Ecological objectives

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

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2021

#### Coordination with others

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

USA NOR

**Status:**

On track

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

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

**SAO Notes****Deliverables 2023****Timeframe**

-

**Coordination with others**

AMAP, CAFF, SDWG

**Observer contribution****Permanent Participant Engagement****Contact****Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

**Status:**

On track

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

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

-

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**  
CAN FIN SWE USA

**Status:**  
On track

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

The aim of this project is to synthesize relevant information on the status, trends and projected changes in the CAO Large Marine Ecosystem (LME), human activities and pressures in the area, and the current management measures in place in order to inform future policy and decision making.

### SAO Notes

#### Deliverables 2023

#### Timeframe

-

#### Coordination with others

#### Observer contribution

WWF

#### Permanent Participant Engagement

#### Contact

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

USA

**Status:**

On track

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

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

- Ongoing

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

NOR USA CAN

**Status:**

On track

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

1. Update strategic actions of the AMSP and integrate new ones, as relevant, to reflect the changes underway in the Arctic marine environment; and,
2. Enhance integration, coordination, and collaboration on marine-related activities among the AC WGs.

### SAO Notes

#### Deliverables 2023

#### Timeframe

2021 -

#### Coordination with others

#### Observer contribution

AMAP, CAFF, EPPR, SDWG, EPPR

#### Permanent Participant Engagement

#### Contact

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

RUS CAN USA

**Status:**

On track

## The Arctic Shipping Best Practice Information Forum

To support the effective implementation of IMO's Polar Code and, more broadly, sustainable Arctic shipping.

### SAO Notes

The 5th Meeting of the Forum will be held online from 16-18 November 2021

### Deliverables 2023

### Timeframe

- Ongoing

### Coordination with others

### Observer contribution

### Permanent Participant Engagement

### Contact

### Traditional Knowledge and Local Knowledge



PAME

**AC Leads:**

NOR USA

**Status:**

Delayed

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

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

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2021

#### Coordination with others

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

Soffia Gudmundsdottir pame@pame.is

#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

CAN USA

**Status:**

On track

## Underwater Noise in the Arctic – Phase I

The aim is to obtain a better understanding of, and estimate the current underwater noise emissions incidentally generated by commercial shipping in the Arctic, while using information from PAME's ASTD database, and collaborating with CAFF as appropriate to advance implementation of AMSA Report Recommendation II(G).

PAME invites its members as well as other Arctic Council working groups to submit comments on the draft report titled "Vessel Traffic Trends in the Arctic and Overlap with Important Marine Mammal Areas".

**SAO Notes****Deliverables 2023****Timeframe**

2019 - 2023

**Coordination with others****Observer contribution**

WWF

**Permanent Participant Engagement****Contact**

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**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

CAN USA

**Status:**

On track

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

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

-

**Coordination with others**

**Observer contribution**

WWF

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

CAN USA

**Status:**

On track

## Update of PAME's shipping priorities and recommendations

The objective is to finalize updates of the Ministerial-approved 2009 AMSA Report Recommendations for consideration and adoption by the Arctic Council and prepare a report that explains and provides a rationale for the proposed changes.

### SAO Notes

**Deliverables 2023**

**Timeframe**

2017 - 2021

**Coordination with others**

**Observer contribution**

**Permanent Participant Engagement**

**Contact**

Soffia Gudmundsdottir pame@pame.is

**Traditional Knowledge and Local Knowledge**

PAME

**AC Leads:**

USA

**Status:**

On track

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

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

### SAO Notes

#### Deliverables 2023

#### Timeframe

2019 - 2021

#### Coordination with others

#### Observer contribution

#### Permanent Participant Engagement

#### Contact

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#### Traditional Knowledge and Local Knowledge

PAME

**AC Leads:**

ICE

**Status:**

On track

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

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

### SAO Notes

**Deliverables 2023**

**Timeframe**

2021 - 2023

**Coordination with others**

**Observer contribution**

CCU WWF

**Permanent Participant Engagement**

**Contact**

**Traditional Knowledge and Local Knowledge**

SDWG AMAP

**AC Leads:**

RUS FIN CAN

**Status:**

On track

## Biosecurity in the Arctic

SDWG: This project will contribute to supporting public health systems and public services in implementing a quick response to current and future biological threats related to the uncontrolled spread of highly virulent pathogens, parasites, biotoxins, and other biohazards across the Arctic. This project is being managed in collaboration with the Arctic Monitoring and Assessment Program (AMAP).

**Main activities:**

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

**SAO Notes**

SDWG leads includes the Russian Federation and Finland. AMAP lead is from Canada.

Experts from SDWG and AMAP have held two working session to discuss the scope and table of contents for the Biosecurity in the Arctic White Paper.

**Deliverables 2023**

1. A case study-based peer-reviewed report integrated with Indigenous knowledge related to specific biohazards in the Arctic that may pose risks to life and human health. (White Paper)
2. recommendations on a community-based screening, monitoring, and inf

**Timeframe**

2021 - 2023

**Coordination with others**

potentially CAFF

**Permanent Participant Engagement**

Experts from AMAP: Eli Ristin Skum, Saami Council; Allan Torng, ICC; Aviaja Lyberth Hauptmann, ICC; and Raphaela Stimmelmayer, ICC.

**Observer contribution****Contact**

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**Traditional Knowledge and Local Knowledge**

SDWG

**AC Leads:**

RUS ICE USA FIN AAC

**Status:**

On track

## Advancing Arctic Resilience: Exploring Aspects of Arctic Resilience connected to the impacts of permafrost thaw

This project will deliver community guidance derived from a Permanent Participant-led tabletop exercise on addressing the impacts of thawing permafrost (Spring, 2022); it will provide a roadmap for developing resilience indicators and monitoring systems useful to Arctic societies (Spring 2022); and it will deliver a summary report from the 3rd Arctic Resilience Forum (ARF), to take place in October of 2022. The tabletop exercise, conducted in collaboration with EPPR, will be patterned after the One Arctic, One Health tabletop exercises from 2017 and 2018. The resilience indicators project will build on past and current work underway within SDWG, CAFF, and AMAP to better understand and measure resilience and the many impacts of permafrost thaw. Both projects will be featured among the sessions of ARF2022. This full suite of work follows directly upon the Arctic Resilience Action Framework, approved by the Arctic Council in 2017, and is organized and led by the team of Indigenous and non-Indigenous experts who participated in the 10-week Arctic Resilience Forum in fall, 2020.

**SAO Notes**

This project was endorsed by the SDWG at its October 2021 Executive Meeting.

**Deliverables 2023****Timeframe**

2021 - 2023

**Coordination with others**

AMAP, CAFF, EPPR

**Observer contribution**

Northern Forum Reindeer Herders IASSA WWF UArctic

**Permanent Participant Engagement**

AAC is a co-lead on the project.

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**Traditional Knowledge and Local Knowledge**



SDWG

**AC Leads:**

CAN FIN NOR USA RUS

**Status:**

On track

## Arctic Community Perspectives on Covid-19 and Public Health: a Multi-site Case Study

The purpose of this project is to implement a three-phase multi-site case study in each Arctic State to assess the positive and negative societal outcomes associated with the COVID-19 pandemic in Arctic communities. Specifically, it will assess the impact of public health measures associated with COVID-19. This work will identify community-driven models and evidence-based promising practices and recommendations that can help inform cohesive and coordinated public health responses and protocols related to future public health emergencies in the Arctic. Research sites will include one community each from Nunavut, Alaska, Greenland, Iceland, Norway, Sweden, Finland and Russia.

The project will address the following research questions:

In what ways are public health measures implemented to address the COVID -19 pandemic the same or different in Arctic communities?

What are Arctic community experiences of public health measures during the COVID-19 pandemic?

How has Indigenous knowledge and local knowledge been integrated with recommended/mandated public health measures to address the COVID-19 pandemic?

What coping strategies did Arctic communities engage in to adapt to the COVID-19 pandemic?

What can we learn from these community case studies to inform policy and program implementation now and in the future?

### SAO Notes

This project was endorsed by the SDWG at its SDWG Executive meeting in June 2021.

Phase I is completed. Phase II commenced this summer; the research team finalized the methodology and research plan for the project. Data collection will commence this fall in all Member States.

### Deliverables 2023

in-depth analyses of each of the 8 case studies; a tool kit presenting differing community models for public health emergency responses and lessons learned from the case studies; a policy brief for the Arctic Council; and peer reviewed presentations and p

### Timeframe

2021 - 2023

### Coordination with others

### Observer contribution

### Permanent Participant Engagement

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### Traditional Knowledge and Local Knowledge

SDWG

**AC Leads:**

RUS CAN NOR

**Status:**

On track

## Arctic Demography Index

The project "Arctic Demography Index" focuses on 2 natural and mechanical demography parameters (natural decrease, natural increase, migration flows of 4 types) within 19 arctic territories of 5 Arctic Council member states (9 regions of the Russian Federation, 3 regions of Lapland, Kainuu, North Ostrobothnia in Finland, 2 counties of Norway - Nordland and Troms, 2 counties of Sweden - Norrbotten and Västerbotten, and the Canadian Arctic and North.

**SAO Notes**

This project was endorsed intersessionally by the SDWG in August 2020. It is included in the SDWG 2021-2023 work plan.

The Arctic Demography Index (ADI) launched its first stage in June 2021, during which the project team collected statistical data for 19 Arctic territories within 5 Arctic States: Canada, Finland, Norway, the Russian Federation and Sweden – down to the municipality level. The data covers the time span from 2011 to 2019 and thanks to ADI's emphasis on visualization, you can already take a look at demographic trends and developments on the project's web presence

<https://app.powerbi.com/view?r=eyJrIjoiYTdhZDY5OTItMWE3NC00YWY1LWFjMzUtYzdiZjBkNjA2ZWVliiwidCI6IjhhNjZkOTA2LWQ3NzEtNDA4MS1iM2NmLWI4Y2E2ZTE4YTAyMyIsImMiOiI9&pageName=ReportSection9ef06a9fe40c7814954e>

**Deliverables 2023****Timeframe**

2020 - 2023

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

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**Traditional Knowledge and Local Knowledge**

SDWG

**AC Leads:**

CAN FIN ICE AIA GCI RUS

**Status:**

On track

## Arctic Food Innovation Cluster (AFIC)

The AFIC will pull together relevant people in the Arctic foods value chain for a cluster-based approach to food production and regional economic development. We understand food production to encompass traditional, artisanal, and industry-scale production of natural resources into food for own, national, and international consumption. A cluster-based approach to food innovation will draw together Arctic food producers with governments, Arctic Indigenous communities, universities, research centers, vocational training providers, and industry associations and young people (the next generation). Overall it will respond to global challenges of food production while seeking to define the Arctic's role and contribution to the changing climate and issues of food security locally and around the world.

**SAO Notes**

This project was endorsed at the SDWG meeting in February 2019.

Survey of Northern American Consumer Attitudes toward Arctic/Indigenous Foods Certification (complete): We surveyed 1602 North American consumers to assess their experience with specific food sustainability labels (e.g., Certified Sustainable Seafood, Ocean Wise, SeaChoice, Fairtrade, Rainforest Alliance Certified, as well as organic and animal welfare certifications) along with their knowledge of these labels and the extent to which they trust these sustainability assurances. We then focused on the Arctic region, its sustainability dimensions, and especially consumers' trust in potential organizations that can provide certification of Arctic and Indigenous food origin. Our final report/publication is being prepared.

Directory of Arctic Food Industries. A directory of Arctic Food Industries is being organized and linked spatially by country, region, product, and Indigenous-owned enterprises. This directory will effectively link food producers to domestic and international markets to increase sales (value chain enhancement) and investment. With the continual increase in Arctic connectivity, business marketing and advertising online has proven to be more effective than other media avenues. Online business directories have become the go to source for Arctic suppliers, vendors, and investors (ongoing).

NARFU Center of Excellence's - Biotechnologies in the Arctic: Integrated, zero-waste processing of seaweed and reproduction of crop species and aquacultures in the Arctic region. This activity involves a comparative analysis into the fundamental properties of matrices of Arctic brown algae and the macrophytes growing in Southeast Asia, the Far East and Europe. This will allow us to identify specific advantages the Arctic macrophytes may have over the species inhabiting other regions. The project attempts, for the first time ever, to provide a comprehensive description of the biologically active substances available in the brown algae inhabiting the western sector of the Arctic.

Treasure from Northern Nature (TreNat) is a Kolarctic CBC-funded joint initiative of NaRFU, Lapland University of Applied Sciences, and Norwegian Institute of Bioeconomy Research (NIBIO). Researchers are currently collecting and processing data on regional non-timber forest products, filming local forests and ecosystems using an unmanned aerial vehicle. The team also plans a series of interviews with representatives of regional agricultural businesses and authorities. The results of the field works are scheduled for presentation in the autumn 2021.

Arctic Foods Cluster Development: We have completed a review of global 'best practices' for translating science and research into policy formulation, accelerating R&D and innovation in industry practices, and attracting blended capital for investment and economic development. Our results indicate the best practice approaches involve a balance between the inclusiveness and agility of an Open Knowledge Network that can identify new opportunities and mobilize novel approaches to overcome challenges in the Arctic supply chain, together with the accountability and staying power of an established organization (i.e., Arctic Economic Council, NaRFU Center of Excellence and/or the SDWG's One Arctic, One Health initiative) that is equipped to drive and diffuse innovations in Arctic food industries.

Model for Finland's Arctic Food Innovation cluster: Finland has prepared an operating model for the Arctic food innovation cluster in the ACAF project. The model has sought a way to take forward food production in the Arctic. The model identifies the key players in the region and the roles for taking the activity forward.

Networking and best practices: the ACAF project organized seven networking events between Finland and the other arctic countries regions during spring and summer 2021. Adaptation research was discussed and best practices shared. The events brought together 173 participants and challenges and solutions concerning e.g., Arctic fisheries and agriculture were brought up. Networking events have sparked further collaboration between participants and research institutes across the Arctic.

<https://www.acaf.fi/networking/international-arctic-adaptation-network/>.

Adaptation governance and policy in the Arctic countries: ACAF project commissioned a report on Arctic adaptation and policy. The report includes a review of adaptation governance in each of the Arctic countries and areas, with best adaptation practices (see publications). An international launch seminar was organized with participants from several different countries.

**Deliverables 2023****Coordination with others****Permanent Participant Engagement**

GCI and AIA are co-leads on this project.

**Traditional Knowledge and Local Knowledge****Timeframe** 2019 - 2023**Observer contribution****Contact**

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SDWG

**AC Leads:**

RUS NOR

**Status:**

On track

## Arctic Hydrogen Energy Applications and Demonstrations (AHEAD)

Design, construction and development of the year-round Snowflake International Arctic Station (IAS) based on fully-autonomous hydrogen energy for finalizing, testing and popularizing solutions in the future environmental life-support technologies, as well as other technologies that improve living conditions in remote areas in the Arctic, such as medicine, biotechnology, clean agricultural technology, telecommunications, robotics, `the Internet of Things` and `smart home/village`, new materials and construction technologies and others. The station is also a vehicle for supporting joint research on climate change, ecology and environmental pollution, including that of the oceans. Functioning as a "living laboratory" IAS will provide a technological and economic foundation to scale up the newly developed solutions for widespread use.

**SAO Notes**

This project was endorsed by SDWG at the 8-9 June 2020 SDWG plenary meeting. It is identified as a project in the SDWG 2021-2023 work plan.

Russia has started the design works of the station in Yamal, and it is scheduled to open in 2024.

Together with partners Russia aims to build two International Arctic Stations "Snowflake" in Yamal (Jade Valley) and in Murmansk region (near the Teriberka settlement).

The Snowflake station in Yamal will be a "Living laboratory" for testing breakthrough Arctic developments and technologies on the basis of renewable energy sources and hydrogen energy.

In Murmansk region the "Snowflake" will be built with a mixed power supply system and for the implementation of scientific and educational programs.

**Deliverables 2023****Timeframe**

2020 - 2024

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

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**Traditional Knowledge and Local Knowledge**

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SDWG

**AC Leads:**

CAN NOR AIA Saami Council RUS

**Status:**

On track

## Arctic Indigenous Youth, Climate Change and Food Culture (EALLU) II

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 2019-2021 project focuses will focus 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 themselves.

**SAO Notes**

This project was endorsed at the Sept. 2019 SDWG meeting.

The Arctic Indigenous Peoples' Innovation FoodLab is now built as an innovative technology solution for youth engagement with food. The kitchen/foodlab component has been constructed with partners in Denmark.

EALLU is planning for restarting community-based workshops, seminars and youth exchange as appropriate according to the pandemic situation. Development of the Arctic Indigenous Peoples' Innovation FoodLab will continue. EALLU will also work with the SDWG AFIC project on building an Indigenous Peoples' Food Innovation Cluster and education opportunities, as well as assessing the Northern Sea-routes as a market channel for indigenous products. Cooperation with the SDWG DLCH project will continue, as well as coordination with the Arctic resilience project, and there will be further process in planning the 1st Arctic Indigenous Peoples' Food Congress.

**Deliverables 2023****Timeframe**

2019 - 2023

**Coordination with others**

The project links to the CAFF Nomadic Herders Project, ARR/ARA, as well as AMAP Adaptation Actions to a Changing Arctic (AACA-C)

**Observer contribution**

Reindeer Herders

**Permanent Participant Engagement**

AIA and Saami Council are co-leads

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**Traditional Knowledge and Local Knowledge**

SDWG

**AC Leads:**

CAN ICE USA GCI RUS

**Status:**

On track

## Arctic Remote Energy Networks Academy (ARENA) II

ARENA I took place from 2017-2019. ARENA II (a follow-on project) was endorsed by the SDWG in September 2019. It 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. Thirty-three (33) applications were received and sixteen (16) were invited into the cohort.

### SAO Notes

There was consensus in postponing delivery until it is safe to meet in person, and a continued need and commitment to adapting to COVID-19 circumstances. We recognize that while some elements of the program could be delivered virtually, it is the in-person connections, networking, site visits, and learning from those on the ground which make ARENA unique. There is potential for recruitment to be re-opened, recognizing that participants' circumstances may have changed since their selection in early 2020 or due to COVID-19, and if so we will reach out to all partners to encourage applicants. There continues to be interest in the project. We were invited to host a session on the ARENA project at the 2021 Arctic Circle Assembly, though unfortunately we are not able to attend and present in person. The ARENA project was selected to be part of the UArctic 2021 Congress Opening Plenary Session in May 2021, and Gwich'in Council International delivered a presentation to in-person and virtual audiences. ARENA was also highlighted in the May 2021 Pre-Ministerial Media Briefing on Arctic communities setting a path to the future.

### Deliverables 2023

### Timeframe

2019 - 2023

### Coordination with others

Links to the goals of the Arctic Contaminants Action Program (ACAP) regarding reducing black carbon emissions from diesel in rural Arctic communities.

### Observer contribution

### Permanent Participant Engagement

GCI co-lead

### Contact

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### Traditional Knowledge and Local Knowledge

Awaiting information

SDWG

**AC Leads:**

RUS ICE GCI

**Status:**

On track

## COVID-19 in the Arctic Assessment Report

This project will provide a timely and comprehensive synthesis of issues and themes related to COVID-19 in the Arctic through the production of a report detailing:

its impacts on the region,

lessons learned from pandemic management,

sharing of experiences and best practices from across the Arctic and transferable jurisdictions, and

research and recommendations that could inform future pandemic management in the region.

It will detail the circumstances surrounding the COVID-19 pandemic in the Arctic, with a particular emphasis on its various health, social, cultural and economic experiences and impacts. Particular attention will be paid to how these impacts were experienced by communities across the Arctic.

The report will be organized into 5-6 thematic chapters that will synthesize relevant research and, as appropriate will recommend future research priorities and provide policy advice for pandemic planning and management in the Arctic. The themes addressed in the report will be informed by the COVID-19 in the Arctic: A Briefing Document for Senior Arctic Officials, the advice of AHHEG and SECEG, and the availability of relevant research and expertise. Each chapter will detail how issues relating to that theme connect with the health, economic, cultural and social impacts of the pandemic. Given the intersectional nature of the impacts of COVID-19 in the Arctic, some overlap between the chapters is anticipated.

By exploring these themes, the report will provide a nuanced analysis of the impacts of the pandemic and inform recovery and emergency preparedness and management processes. The completed report will also support policy makers by identifying gaps in current research and policy, and inform priority setting in the development of new research and policy. It will also serve as a tool for assessing and monitoring the impacts of any new policies. The final report will provide concrete policy recommendations, following up on Part III of the COVID-19 in the Arctic: A Briefing Document for Senior Arctic Officials, Core Themes and Guidance for the Arctic Council. This will include policy relevant conclusions from lead authors in each chapter and a separate Summary for Policy Makers document which will provide an overview of the broader policy implications of the report as a whole.

### SAO Notes

This project was endorsed by the SDWG at its October 2021 plenary meeting.

### Deliverables 2023

COVID-19 in the Arctic Assessment Report

### Timeframe

2021 - 2023

### Coordination with others

AMAP, EPPR, PAME

### Observer contribution

IASSA WWF

### Permanent Participant Engagement

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### Traditional Knowledge and Local Knowledge

SDWG

**AC Leads:**

RUS NOR RAIPON

**Status:**

On track

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

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

**SAO Notes**

This project was endorsed at the October 2020 SDWG plenary meeting. This project is included in the SDWG 2021-2023 work plan.

The following events were organized and carried out:

September 21-24, 2021, the All-Russian Research to Practice Conference "Digitalization of the Linguistic and Cultural Heritage of Indigenous Peoples of the Arctic" was held in Neryungri, Republic of Sakha (Yakutia), Russian Federation.

Within the framework of the III Northern Sustainable Development Forum, the following events were held:

September 27, 2021 International seminar «Intellectual Property Rights of Indigenous Peoples to Knowledge, Cultures and Languages in the Digital Era»

September 28, 2021 Special session «Human adaptation in the changing Arctic»

September 28, 2021 International seminar "Digitalization of the Linguistic and Cultural Heritage of Indigenous Peoples of the Arctic"

**Deliverables 2023****Timeframe**

2020 - 2024

**Coordination with others****Observer contribution****Permanent Participant Engagement**

RAIPON is a co-lead

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**Traditional Knowledge and Local Knowledge**



SDWG

**AC Leads:**

CAN FIN KOD SWE ICC ICE GCI

**Status:**

On track

## Local 2 Global: Circumpolar collaboration for suicide prevention and mental wellness

Stemming from Project CREATEs under the Finnish chairmanship (2017-2019) which built on the Sharing Hope project from the Canadian chairmanship (2013-2015) and the RISING SUN initiative under the U.S. chairmanship (2015-2017), Local 2 Global aims to facilitate international collaboration and connections between circumpolar communities working to prevent suicide and support the mental wellbeing of all Arctic youth and communities, including Arctic Indigenous Peoples who have the highest rates of suicide in the Arctic. The project takes a holistic approach founded on the SDWG guiding principles of collaboration, concrete achievements, and inclusive engagement and activity.

**SAO Notes**

This project was endorsed for 4 years (2019-2023) at the September 2019 SDWG meeting.

Due to Covid-19, project leads are exploring options to transition certain activities online. Further modification to the project plan and the timeline to complete the project plan will depend on further developments with the pandemic.

**Deliverables 2023****Timeframe**

2019 - 2023

**Coordination with others****Observer contribution****Permanent Participant Engagement**

Co-lead by ICC

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**Traditional Knowledge and Local Knowledge**

SDWG

**AC Leads:**

USA CAN FIN KOD NOR

**Status:**

On track

## One Arctic, One Health

The One Arctic, One Health project was approved for its third iteration during the June 2020 SDWG Plenary meeting. It seeks to develop a collaborative network of Arctic One Health (human-animal-environmental health nexus) stakeholders via knowledge sharing, tabletop exercises, and collaborative investigations of One Health phenomena such as disease outbreaks and natural disasters. A key outcome of the project is to self-sustain the network after the life of the Arctic Council project, via an independent set of "One Health hubs" (points of contact) that continue to facilitate One Health work in the circumpolar North.

Should pandemic-related constraints allow, organizers would seek to conduct one or more exercises in person in 2022. These exercises may follow the previous "table top exercise" simulation format conducted in 2017 and 2018, or may follow a "prioritization" format used in other One Health contexts.

The ultimate goal of the project remains to establish One Health hubs (aka points of contact, centers of excellence) in all Arctic Council member states and permanent participant organizations.

**SAO Notes**

This follow-on project was endorsed at the June 8-9 2020 Virtual SDWG Plenary meeting.

Project leads are currently planning a One Arctic, One Health exercise for spring 2022.

**Deliverables 2023**

2022 One Arctic, One Health exercise (format and timing to be determined based on pandemic-related constraints)

Progress in developing independent network of "One Health Hubs" to extend circumpolar One Health cooperation after the project has concluded

**Timeframe**

2020 - 2023

**Coordination with others**

All working groups may be considered One Health stakeholders; most common cross-over is with members of AMAP (HHAG), ACAP (LEO Network), and CAFF (wildlife experts)

**Permanent Participant Engagement**

Opportunities for PP involvement are being explored.

**Traditional Knowledge and Local Knowledge****Observer contribution****Contact**

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SDWG

**AC Leads:**

RUS NOR

**Status:**

On track

## Preserving ARcTic ARChitectural Heritage (PrARCheritage)

- To bring interested people and organizations, including Indigenous peoples, together to set experts' network and initiate new approaches to preservation and popularization of Arctic AH;

-To define a set of problems and understudied topics related to Arctic architectural heritage studying, preservation, and popularization and propose respective solutions (in pilot cases), including attraction of experience and knowledge of indigenous people);

-To collect data and create a database & digital map of ArcticAH(including those objects having historical and cultural value for the Northern Indigenous peoples),

-To develop an international Digital platform (on the base of NArFU as a Project Leader) for effective interaction between partners, experience exchange and dissemination of best practice in the field of studying, preserving and popularization of architectural heritage in the Arctic;

- To reconstruct the authentic appearance of pilot AH7(which will be jointly defined by project team experts) using virtual and augmented reality (3D modeling technology) using existing environment with the possibility of subsequent virtual visit (wide audience coverage, higher inclusivity and accessibility). The list of pilot AH will be specifically identified and negotiated by project partners and AH owner;-To enhance self-education (through access to digital Arctic AH with their description, photo, history, etc.) transfer knowledge across borders, particularly focusing on young generation and university students (also thru University of the Arctic thematic network), and develop expertise in areas of shared interest between Arctic countries in the field of architectural and technological solutions for preservation and sustainable management of the Arctic AH.

### SAO Notes

This projected was endorsed at the October 2021 SDWG plenary meeting.

### Deliverables 2023

Digital database of all Arctic Architectural Heritage sites

### Timeframe

2021 - 2023

### Coordination with others

### Observer contribution

### Permanent Participant Engagement

### Contact

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### Traditional Knowledge and Local Knowledge

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SDWG

**AC Leads:**

CAN ICE FIN

**Status:**

On track

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

This project examines the nexus between Sustainable Development Goal (SDG) 2 - Ending hunger and achieving Food security for all; SDG 6 - Ensuring the availability and sustainable management of Water and sanitation for all; and SDG 7 - Ensuring access to affordable, reliable, sustainable and modern Energy for all. It is the first WEF nexus study to be conducted in the Arctic.

**SAO Notes**

This project was endorsed at the SDWG plenary meeting in October 2020. It is included in the SDWG 2021-2023 work plan.

An Arctic Water-Energy-Food (WEF) Security Index has been developed to monitor access to and availability of water, energy, and food resources. The index is based on an aggregation of 21 indicators related to the Sustainable Development Goals (SDG 2, SDG 6, and SDG 7) used to measure progress toward the achievement of SDG targets.

Regional Data Collection and Analysis remains ongoing.

Arctic WEF Nexus Portal - Hosted by the University of Saskatchewan, the portal is a visualization and information-sharing platform focused on making Arctic Water-Energy-Food (WEF) Security Index scores/data more readily available to end users (currently off-line but will be managed under a Creative Commons License).

WEF Nexus in the Arctic: An Open Platform Course: Using the UN's Sustainable Development Goals (SDGs) and WEF Nexus concepts as theoretical foundations, this course will integrate physical, biological, social, behavioural, economic and engineering sciences to introduce students to holistic ecosystem-based approaches built on systems theory. The course will adopt a purely Arctic perspective and students are expected to take an interest in regional systematic drivers and trans-scalar linkages (in development, Martin Olsen).

**Deliverables 2023****Timeframe**

2020 - 2023

**Coordination with others****Observer contribution****Permanent Participant Engagement****Contact**

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