**PAME I-2019: Agenda 10.2(a)**

**PAME work plan items 2019-2021 for inclusion into the SAO Report to Ministers, May 2019**

# Introduction

The PAME Work Plan 2019-2021 was developed according to: PAME`s mandate; priorities identified and recommendations made in Arctic Council approved reports; direction provided in Ministerial declarations; follow-up on recommendations from Arctic Council projects and the Arctic Marine Strategic Plan (AMSP 2015-2025), which outlines the overall direction of the Arctic Council for the protection of the Arctic marine environment; and policy follow up to the scientific and other relevant assessments of the Arctic Council. Additional project proposals may be developed within the scope of this Work Plan between 2019-2021, subject to PAME approval, confirmed lead/co-lead commitment and financing.

# List of individual project and activities:

## Marine Protected Areas (4 activities)

**Project/activity:** **Modelling Arctic oceanographic connectivity to further develop PAME’s MPA toolbox** *(Lead/co-lead: Sweden, collaboration sought with CAFF, others TBC) (NEW)*

Rationale: 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 design to aid in the sustainable use of the Arctic environment.

The modelling of Arctic oceanographic connectivity will support further development of PAME’s MPA toolbox. It will require close collaboration with CAFF and is considered a multiyear and iterative project based on best available baseline data, incorporating new data and studies by the Arctic Council, the Arctic States and others, as relevant.

Timeline: 2019-2021

Estimated budget: 163.000 USD

**Project/activity:** **Arctic Protected and Important Areas** *(Leads: TBC (PAME and CAFF Secretariats)) (NEW)*

Objective: CAFF and PAME will work jointly work towards updating the 2017 Arctic Protected Areas Indicator Report (API) to incorporate newly protected areas established since 2017. In addition the API is being compared with the data for the Arctic contained within 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.

Timeline: 2019-2021

Estimated budget: PAME and CAFF Secretariats in-kind

**Project/activity**: **Factsheet series on Arctic climate change impacts** *(1st work package) (Leads:* Finland, USA, Canada (and Norway/TBC) *(NEW)*

Objective: To develop the 1st thematic factsheet on Arctic climate change impacts on MPAs and indigenous people’s lives. The aim is to leverage and synthesize factual information from the Arctic Council’s work in a layman’s format to communicate to decision makers and the public; to contribute to cross-working groups cooperation on common topics; and contribute to the outreach aspect of the Arctic Council and ensuring close collaboration with the Arctic Council Secretariat.

Timeline: 2019-2021

Estimated budget: 170.000 USD

**Project/activity**: **Expansion/refinement of the MPA Toolbox** *(continuation from previous work plan)* *(Leads: Finland, Sweden, United States. MPA Expert Group Partners: CAFF, WWF, CCU)*

*Objective:* To continue enhancing PAME’s work on a Pan-Arctic Network of Marine Protected Areas and contribute to some of the near-term actions listed in the Framework for a Pan-Arctic Network of MPAs and the AMSP strategic action 7.2.10.

Timeline: Continuation from previous work plan

Note: Further details to be developed in coordination with the co-leads and the MPA expert group.

## Arctic Marine Shipping (13 activities):

**Project/activity:** **Black Carbon emissions from shipping activity in the Arctic and technology developments for reduction** *(*lead: Iceland, participation confirmed by Russia, Finland, USA and the Kingdom of Denmark).

Objective: The project has the following two components:

* To compile data on black carbon emissions from shipping activity in Arctic waters using the ASTD database to better understand the distribution and magnitude of these emissions in the region.
* To foster dialogue and sharing of information among PAME Members, industry, experts, and others as appropriate on technology developments, including information on cost-efficiency methodology and other relevant factors, for the reduction of black carbon emissions from shipping in the Arctic.

Finalization of the project proposal will take into consideration the outcome of IMOs PPR6 (February) and MEPC74 (May) meetings and will be revised accordingly by the project correspondence group.Timeline: 2019-2021

Estimated budget: 105.000 USD

**Project/activity:** **Arctic Shipping Status Reports** *(Leads: Norway (tbc), USA (tbc), PAME Secretariat) (NEW)*

Objective: Utilize the Arctic Shipping Traffic Database (ASTD) System to develop a user-friendly, illustrative informational factsheets on Arctic shipping to highlight important developments inArctic shipping activities.

Timeline: 2019-2021

Estimated budget: 85.000 USD

**Project/activity**: **Environmental toxicity and fate of light and intermediate fuel oils when spilled in cold waters** *(Lead: Norway (Working group partner: EPPR – joint project – tbc) (to be revised/modified by Norway)*

Objective: To gather knowledge and describe reasons for the large variation in environmental toxicity of light and intermediate fuel oil. This is a joint project proposal between PAME and EPPR.

Note: Further details to be developed in coordination with EPPR

Timeline: 2019-2021 (TBC)

Estimated budget: TBC

**Project/activity: Arctic Marine Tourism: Development in the Arctic and enabling real change** *(Lead: Iceland, co-lead Canada) (NEW)*

Objective: This project will follow up on recommendations contained in the [Arctic Marine Tourism Project – Best Practice Guidelines document (AMTP 2015)](https://pame.is/images/03_Projects/Arctic_Marine_Shipping/Arctic_Marine_Tourism_Project/AMTP_Best_Practice_Guidelines.pdf) and has the following two components:

* To compile data on tourism vessels in the Arctic using  the ASTD database to better understand recent developments, identify gaps in data, and explore the feasibility to map the use and carriage of AIS by vessels not obligated to do so by IMO regulations.
* To summarize existing site-specific guidelines for near-shore and coastal areas of the Arctic visited by passengers of marine tourism vessels and pleasure crafts.

The final product will be a summary report with recommendations on next steps, for Ministerial approval in May 2021, and an online repository of information collected for the purposes of the project.

Timeline: 2019-2021

Estimated Budget: 110.000 USD (partly in-kind)

**Project/activity:** **PAME-ARHC Memorandum of Understanding** *(Leads: USA/Canada) (NEW)*

Objective: Formalizing the relationship between PAME and the Arctic Regional Hydrographic Commission (ARHC) through the development of a non-binding memorandum of understanding (MOU). The objective of such an MOU would be to foster greater communication between the two organizations and enhance coordination and cooperation on projects of mutual interest.

Timeline: 2019-2021

Estimated budget: in-kind

**Project/activity:** **Underwater Noise in the Arctic – Understanding Impacts and Defining Management Solutions - Phase I** *(Leads: Canada/WWF)*

Objective: Using information from the PAME’s Arctic Ship Traffic Data (ASTD) project, and in collaboration with CAFF as appropriate, to:

* Advance implementation of AMSA Report Recommendation II(g)
* Obtain a better understanding of, and estimate the current underwater noise emissions incidentally generated by shipping in the Arctic.
* Identify where underwater noise from shipping and areas of heightened ecological or cultural significance as identified by the Arctic Council overlap
* Based on the results obtained, and recognizing the limitations inherent to high-level analyses, investigate possible mitigation strategy options to reduce the impact of underwater noise incidentally generated by shipping in the Arctic. Expert input and traditional and local knowledge will be used to inform any such options.

Timeline: Phased approach with phase one for the 2019-2021 period.

Estimated budget: in-kind

**Project/activity:** **Compendium of Shipping Accidents in the Arctic (CASA): Follow-up** *(Lead: USA (Joint project with EPPR)) (Continuation-under development)*

Objective: Develop a compendium of shipping accidents in the Arctic for the period 2005-2017 and an overview report to update the corresponding information contained in the 2009 Arctic Marine Shipping Assessment (AMSA) Report. Incorporate the CASA information using GIS mapping tools into the ASTD database and conduct a further analysis and report to identify accident causes and potential options for reducing the risk of such accidents.

Timeline: 2019-2021

Estimated budget: in-kind

**Project/activity:** **HFO Phase IV(b) - Collect, report and/or review information about on-shore use by indigenous peoples and local communities of HFO** *(Leads: USA, AIA, CCU (Working group partner: SDWG)) (ongoing, continued from previous work plan)*

Objective: To develop to a report summarizing the information collected by means of a field survey in 2018 about on-shore use by indigenous peoples and local communities of HFO as well as the extent to which such peoples and communities rely on ships that burn HFO to deliver supplies and provisions. Pursue consideration of submission of the report to the 7th session of the International Maritime Organization’s Sub-Committee on Pollution Prevention and Response by one or more Arctic States.

Timeline: 2019-2021

Estimated budget: in-kind**Project/activity: Collect and summarize information on Arctic State safe and low-impact marine corridor initiatives** *(Leads: Canada, Iceland and AIA) (ongoing, continued from previous work plan)*

Objective: Collect and summarize information on safe and low-impact marine corridor initiatives and programs in the Arctic region and submit a final report to PAME.

Timeline: 2019-2021

Estimated budget: in-kind**Project/activity:****A framework for more systematically engaging with Observers on shipping related matters** *(Leads: USA, Republic of Korea, Italy, Poland) [Northern Forum?] (ongoing, continued from previous work plan)*

Objective: Develop an approach/framework for more systematically engaging with Observer on PAME’s shipping-related work and identify opportunities for Observers to contribute to and/or support such work. Identify options for leveraging Observer interest and expertise.

PAME will convene one or more workshops during the two-year biennium to advance this project.

Timeline: 2019-2021

Estimated budget: in-kind

**Project/activity:** **AMSA recommendation update refresh** *(Leads: USA/Canada) (ongoing, continued from previous work plan)*

Objective: To finalize development of proposed updates of the ministerial-approved 2009 Arctic Marine Shipping Assessment (AMSA) Report Recommendations for consideration and adoption by the Arctic Council. This includes preparation of a report that explains and provides a rationale for the proposed changes.

Timeline: 2019-2021

Estimated budget: in-kind**Project/activity:** **Further development of the ASTD database** *(Leads: USA/Norway) (ongoing, continued from previous work plan)*

Objective: To further augment and refine the information contained in Arctic Ship Traffic Database as well as enhance its analytical capabilities. The database was publicly launched in February 2019 and the project will continue to strengthen and debug the database in response to empirical experience and user feedback*..*

*Timeline: 2019-2021*

*Estimated budget: as per* the *Cooperative Agreement among the Arctic States Regarding Arctic Ship Traffic Data Sharing (2017).***Project/activity:** **The Arctic Shipping Best Practice Information Forum** *(Leads: Iceland/USA/Canada) (ongoing, continued from previous work plan)*

Objective: Convene annual meetings of participants and continue the development and expansion of the Forum’s web portal ([arcticshippingforum.is](https://pame.is/arcticshippingforum#part-ia-safety-measures)). The web-portal includes links to key information related to the IMO’s Polar Code and serves as a resource hub of information, guidance and guidelines that aid decision makers involved in Arctic maritime navigation and those affected by maritime operations related to the Polar Code. This is in accordance with the ToR for the Arctic Shipping Best Practices Forum (2017).

Timeline: Two annual meetings during the 2019-2021 period

Estimated budget: in-kind

## Invasive species

**Project/activity:** **Implementation Plan for the ARIAS Strategy and Action Plan** *(Leads: Implementation Coordination Group (CG) co-led by CAFF and PAME)*

Objective: PAME and CAFF have established a Joint ARIAS (Arctic Invasive Alien Species Strategy and Action Plan) Implementation Coordinating Group (ICG) and approved the Terms of Reference for the ICG with the aim to guide implementation of ARIAS and provide recommendations regarding potential implementation actions and progress on areas of interest to the CAFF and/or PAME Working Groups.

Any joint projects will need to be approved by both the CAFF and PAME (for marine) and by CAFF (for terrestrial).

Timeline: The ICG to develop project proposals intersessionally for CAFF and PAME to consider including in their respective 2019-2021 work plans.

Estimated Budget: in-kind

## Arctic Marine Pollution

**Project/activity**: **Regional action plan on marine litter in the Arctic** *(Leads: Iceland, Norway, Sweden, Canada (TBC), USA (TBC), AIA (tbc) and OSPAR)*

Objective: To develop a Regional Action Plan on Marine Litter in the Arctic (RAP-ML) addressing both sea and land-based activities, focusing on Arctic-specific marine litter sources and pathways, which will play an important role in demonstrating Arctic States’ stewardship efforts towards reducing the negative impacts of marine litter, including microplastics, to the Arctic marine environment. The RAP-ML may be updated in subsequent bienniums to address new and emerging information and priorities; therefore the structure needs to be realistic and adaptable.

Collaboratation with other Arctic Council working groups working on marine litter activities, and others as relevant to marine litter in the Arctic to ensure that this work is adaquetly reflected in the first version of the Regional Action Plan.

The development of outreach and communication material will continue as a part of the project.

Timeline: first version of the RAP during the 2019-2021 period.

Estimated Budget: 220.000 USD

## Ecosystem Approach to Management (4 activities)

Overall objective: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.

**Project/activity: Convening of the 2nd International Science and Policy Conference on Implementation of the Ecosystem Approach to Management in the Arctic in Bergen, Norway 2019** *(Leads: Norway/USA in close collaboration with the EA expert group) (continuation on advancing the EA work within the Arctic Council)*

Title: The Ecosystem Approach to Management of Arctic Marine Ecosystems: Integrating information at different scales in the framework of EA implementation

Objective**:** Topics to be addressed include Integrated Ecosystem Assessment, Ecological Quality Objectives, Marine Protected Areas, National EA Implementation by Arctic States, and the Central Arctic Ocean While the focus is on EA implementation in the Arctic, the topic of scale integration is general and universal.

**Project/activity:** **7th EA Workshop** (*Leads: Norway/USA in close collaboration with the EA expert group) (continuation on advancing the EA work within the Arctic Council)*

Objective: To convene the 7th EA workshop in 2020 with focus on element No. 5 of the EA framework: Value the cultural, social, and economic goods and services produced by the ecosystem.

**Project/activity**: **Ecological Objectives** *(Leads: Norway/USA in close collaboration with the EA expert group)*

Objective: Report on developments in defining or setting ecological quality objectives in the context of EA implementation in national and international processes.

**Project/activity: Integrated Ecosystem Assessment (IEA) of the Central Arctic Ocean** *(ongoing cross-cutting initiative in cooperation with ICES, PICES and EA expert group-)*

Objective: Continue emphasis on development of Integrated Ecosystem Assessment (IEA). Continue to report on developments within ICES/PICES/PAME Working Group on Integrated Ecosystem Assessment (WGICA) as well as other ICES activities on IEA, the meetings of scientific experts on fish stocks in the central Arctic Ocean, and any other relevant activities, e.g., in the U.S. NOAA IEA program.

## Resource Exploration and Development (4 Activities)

**Project/activity:** **MEMA Information handbook for engagement with Indigenous peoples and local communities** *(Leads: USA/Canada and three Permanent Participants – AIA, ICC and Saami Council in close collaboration with the REDEG expert group)*

Objective: To develop an Information handbook or a reference guide as a practical tool for engagement with indigenous peoples and local communities as a follow-up to the *Meaningful Engagement of Indigenous Peoples and Local Communities in Marine Activities (MEMA) project.*

PAME will reach out to SDWG to explore their possible interest in collaborating on this information handbook/reference guide.

Timeline: 2019-2021

Estimated budget: in-kind

**Project/activity: Update/status report on Arctic state activities related to oil and gas** *(Lead: Resource Exploration and Development expert group (REDEG))*

Objective: To describe current oil and gas activities of the Arctic states based on states’ submissions of information describing, for example, the current state of oil and gas activities, relevant legislation, regulations and practices. To this end, REDEG will develop a template to facilitate states’ submissions.

**Project/activity: Follow-up on the Framework Plan on Oil Pollution Prevention (FP-OPP)** *(Leads: REDEG and SEG)*

Objective: EPPR, in cooperation with PAME, will continue to report on the status of implementation of the FP-OPP. The Status Report on implementation identifies follow-up activities that support the objectives in the Framework Plan. The report will include input from other Arctic Council working groups and relevant stakeholders capturing activities that are already taking place.

## Strategic Framework Documents

**Project/activity:** **AMSP Implementation Status Report 2019-2021** *(Leads: PAME HoD’s, PAME Secretariat, in collaboration with the other Arctic Council working groups)*

Objective: To track progress on implementation of the AMSP forty strategic actions and develop an 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.

# Administration

The PAME International Secretariat is hosted by Iceland and located in Akureyri. The Secretariat has a staff of three: (1) the executive secretary; (2) executive assistant; and (3) project manager. A Ministerial agreement (1998) provides the framework for voluntary contributions to the operation of the PAME secretariat. Contributions are provided by six of the eight Arctic States in support of the secretariat. PAME cooperates closely with CAFF to share fixed Secretariat overhead costs. Canada has chaired, and the United States has co-chaired the PAME WG during 2017–2019 period. XXXX will chair PAME during the 2019-2021 period. PAME has held four WG meetings, two MPA network expert workshops, two Arctic Shipping Best Practices Information Forum meetings, two ASTD workshops and one workshop on the Joint ARIAS Implementation Coordinating Group, in addition to a number of meetings of the PAME EGs during the Finnish Chairmanship of the Arctic Council. A Ministerial agreement (1998) currently provides the framework for country contributions to the operation of the PAME Secretariat. The annual operational budget is XXX.