**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 mitigation measures from shipping in the Arctic: Fuel and Exhaust Gas Treatment for Marine Diesel Engines – Summary Report** *(lead: Iceland, other co-leads being sought) (NEW)*

Objective: 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.

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 online on Arctic shipping through e.g. the producing of a number of Story maps to highlight interesting aspects of Arctic shipping activities – or by other means to be decided by the project team.

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) (NEW-under development)*

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: Shipping analysis and Site specific guidelines** *(Lead: Iceland, other co-leads sought) (NEW)*

Objective**:** To gather knowledge on the status, trends and challenges in Arctic marine tourism and assess the need for best practices guidelines in support of existing site- specific guidelines.

This project will contribute to the following [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) recommendations:

* *Compile a publicly available repository of circum-Arctic marine tourism information.*
* *Develop a standardized framework for, and encourage the preparation of, site-specific guidelines for near-shore and coastal areas of the Arctic visited by passengers of marine tourism vessels and pleasure craft.*

Timeline: 2019-2021

Estimated Budget: 110.000 USD

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

Objective: Formalizing the relationship between PAME and ARHC through a non-binding memorandum of understanding (MOU) would encourage more frequent exchanges of information. The objective of such an MOU would be to foster greater communication between the two organizations and enhance coordination on projects of mutual interest. Though the MOU would not be legally binding, it would allow each body to leverage the expertise of the other in order to develop a unified strategy for improving hydrographic charts and surveys in the Arctic.

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) (continuation-under development)*

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

* Obtain a better understanding of, and estimate the current underwater noise emissions) or ‘noiseprint’) from shipping in the Arctic.
* Identify hotspots of overlap between underwater noise from shipping and ecologically and culturally significant habitats.
* Based on the results obtained, and recognizing the limitations inherent to high-level analyses, define and communicate (including to international regulators) possible management options to reduce the impact of underwater noise from shipping in the Arctic. Expert input and traditional 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 to update the database of shipping accidents in the Arctic contained in the 2009 Arctic Marine Shipping Assessment (AMSA) Report and provide information useful to considering measures that might be pursued to reduce the risk of accidents. The project has been presented at recent PAME meetings, and will be pursued further, and its results incorporated to the Arctic Ship Traffic Database (ASTD).

**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 collect, report and/or review information 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.

A project in partnership with the Sustainable Development Working Group (SDWG)

**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 Arctic State safe and low-impact marine corridor initiatives and programs and contribute to enhanced marine navigation safety with a view to submitting a final report to PAME.

Timeline: continuation from previous work plan

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) (ongoing, continued from previous work plan)*

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

PAME aims to hold one or more workshops during the two-year biennium with Observers to advance this project.

Timeline: continuation from previous work plan

Estimated budget: in-kind

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

Objective: To continue the development and updating of shipping priorities and recommendations under the three themes of the 2009 Arctic Marine Shipping Assessment (AMSA) Report (Enhancing Arctic Marine Safety; Protecting Arctic People and the Environment; and Building the Arctic Marine Infrastructure).

Timeline: continuation from previous work plan

Estimated budget: in-kind

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

Objective: To update, administer and further develop the Arctic Ship Traffic Database. The database setup has been completed but will be updated and developed as per instructions from the ASTD Expert Group by the Norwegian Coastal Administration, and administered by the PAME Secretariat. That includes the overseeing of the annual funds for ASTD, and other roles according to 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 stakeholders 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 areas of heightened ecological and cultural significance (e.g. EBSAs); Marine Protected Areas (MPAs); local co-management arrangements; Traditional and Indigenous Ecological Knowledge; community monitoring; and other aspects as developed by a conference planning group. 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-* *clarification on PAME’s role currently under discussion)*

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:** **Information handbook** *(Leads: USA/Canada 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: Guidance on Engagement of Indigenous Peoples in Offshore Oil and Gas**  *(Leads: USA/Canada in close collaboration with the REDEG expert group)*

Rationale/objective: The guidance for industry and government engagement in offshore oil and gas activities dates to the first Arctic Offshore Oil and Gas Guidelines over 20 years ago in 1997. These recommendations were ground breaking for the Arctic Council. Since then, we have come to a better understanding of this important aspect of regulating and managing activities. In addition, the MEMA project has provided background on meaningful engagement and good practices. There are 29 Recommendations for engaging Indigenous Peoples and local communities from the AOOGG 2009.

Timeline: 2019-2021

Estimated budget: in-kind

**Project/activity:** **Guidance on Non-Emergency Operations, Monitoring, and Decommissioning/Site Clearance** *(Leads: USA/Canada in close collaboration with the REDEG expert group)*

Rationale/objective: In response to the call for a periodic review of the guidance contained in the 2009 Arctic Offshore Oil and Gas Guidelines, recognizing that the EPPR has the mandate for the emergency topics covered in the 2009 AOOGG, and further recognizing the new Arctic Offshore Regulator Forum and their focus on operational issues, the PAME Resource Exploration and Development Expert Group (REDEG) determined that updating sections (4) Environmental Monitoring, (5.2) Compliance Monitoring, (6.1) Waste Management, (6.2) Use and Discharge of Chemicals, (6.3) Emissions to Air, and Decommissioning and Site Clearance (8.0) could be a useful objective.

Timeline: 2019-2021

Estimated budget: in-kind

**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.