1st draft outline

PAME Work Plan

2019-2021

**[LONG VERSION]**

# PREFACE

PAME focuses on the marine agenda of the Arctic Council and provides a unique forum for collaboration on a wide range of activities directed towards the protection and sustainable use of the Arctic marine environment.

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

PAME provides a unique forum for collaboration on a wide range of Arctic marine environment issues and consists of representatives from the Arctic states, who are responsible for its work in their respective countries, and representatives of Permanent Participant organizations on behalf of Arctic indigenous peoples. Additionally, the other Arctic subsidiary bodies, accredited observers and other Arctic stakeholders contribute to the ongoing work of PAME.

PAME generally meets twice a year to assess progress and advance its work. PAME is headed by a Chair and Vice-Chair, which rotate among the Arctic States and are supported by a Secretariat based in Iceland. PAME reports to the Senior Arctic Officials (SAOs), and through them, to the Ministers of the Arctic Council who meet every two years. PAME’s work plan is approved by the SAOs and the Ministers.

# INTRODUCTION

The PAME Work Plan 2019-2021 was developed according to:

* PAME’s mandate;
* priorities identified and recommendations made in reports and arrangements developed by or negotiated in Arctic Council subsidiary bodies that are approved by the SAOs and Arctic Ministers;
* direction provided in Ministerial declarations and Chairmanship priorities, as relevant;
* follow-up on recommendations from Arctic Council projects and the Arctic Marine Strategic Plan (2015-2025), which outlines the overall direction of the Arctic Council for the protection of the Arctic marine environment, in addition to policy follow up to the scientific and other relevant assessments of the Arctic Council.

# PROJECTS AND ACTIVITIES

Additional project proposals may be developed within the scope of this work plan between 2019-2021, subject to confirmed lead/co-lead commitment and financing.

**AMSP Goal 1:**

***Improve knowledge of the Arctic marine environment, and continue to monitor and assess the current and future impacts on Arctic marine ecosystems.***

**BACKGROUND**:

There is increasing demand for reliable and pertinent information in the Arctic context, which will increase as the region undergoes more development with increased human activities and climatic changes.

The Arctic Council has proven to be an important provider of scientific-based assessments, taking into account traditional and local knowledge. Informed policy decisions depend on improved understanding of the Arctic marine environment and drivers of change, attained through accurate, accessible and foundational scientific data, such as topographic, hydrographic, oceanographic and meteorological information, and other marine spatial data, as well as traditional and local knowledge.

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| **Project/activity** | **Description** | **Lead(s) and partners** |
| ***Arctic Marine Shipping*** | | |
| *Continue to advance the work by PAME on mitigating risks associated with the use and carriage of Heavy Fuel Oil (HFO) by vessels in the Arctic* | | |
| * **HFO Phase IV(a) - Collect and report information on use of Heavy Fuel Oil (HFO) in the Arctic** | Collect and report information for the most recent three-year period on the number, types and routes of ships in the Arctic that used HFO as fuel (including quality or grade) or transported it as cargo, including if available the volume of HFO carried as bunker fuel and/or cargo as well as the destination of HFO transported as cargo. | Canada, USA (utilizing the ASTD system if approved) |
| * **HFO Phase IV(b) - Collect, report and/or review information about on-shore use by indigenous peoples and local communities of HFO** | A project in partnership with the Sustainable Development Working Group (SDWG) (subject to SDWG to confirmation) 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. | USA, AIA, CCU  WG partner: SDWG |
| * **HFO Phase IV(c) - Prepare an information paper summarizing PAME’s work on HFO.** | Prepare an information paper summarizing PAME’s work on HFO for possible submission by one or more Arctic States to IMO’s Marine Environmental Protection Committee. | Canada, PAME Secretariat |
| * **HFO Phase IV(d) - Explore the environmental, economic, technical and practical aspects of the use by ships in the Arctic of alternative fuels.** | Prepare or commission a report that explores the environmental, economic, technical and practical aspects of the use by ships in the Arctic of alternative fuels, including liquified natural gas. | Norway, WWF |
| * ***PLACEHOLDER* – Project on alternative fuels, hybrid oils and toxicity of oils** | Project proposal placeholder. | Norway |
| * ***PLACEHOLDER - Guideline and tool for Arctic Marine Risk Assessment*** | A proposal from the EPPR working group to participate in the project: Risk Assessment methods and metadata – development of guideline and tool | Norway:  WG partner: EPPR |
| * ***PLACEHOLDER - Project Proposal - Black carbon and methane mitigation measures for shipping in the Arctic*** | A project proposal to collect information on mitigation measures with the goal of identifying mitigation measures that are easily obtainable and can be adapted to each country’s specific circumstances, as relevant. | Iceland |
| **Supporting harmonized implementation of the Polar Code.**  *The Polar Code entered into force on 1 January 2017. For the Polar Code to be a success it is important to ensure harmonized implementation. Toward this end, both the IMO and the Arctic Council have major roles. This project will look at how PAME can best report on the Arctic States’ implementation of the Polar Code.*  **[UPDATE NEED TO REFLECT THE 2019-2021 PERIOD]** | PAME anticipates finalizing and approving this project proposal at the PAME II-2017 meeting which proposes to include activities such as how best to report on the implementation of the Polar Code. Port State Control regime statistics on ship compliance will be examined. Challenges, if any, in observing the Polar Code implementation will also be evaluated. Close coordination with the IMO will take place throughout the project period. In February 2018 (in Helsinki), Finland will coordinate a related International Conference on Harmonized Implementation of the Polar Code. At the Conference, the “Polar Code Implementation Inspection Campaign” will be launched. It is proposed that this project also be launched at this event. | Finland, Russian Federation |
| **Collect and summarize information on Arctic State safe and low-impact marine corridor initiatives**  **[ANY FOLLOW-UP ACTIVITIES FOR THE 2019-2021 PERIOD?]** | 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 report by PAME I-2019. | Canada, Iceland, AIA |
| **Compendium of Arctic Shipping Accidents**  *Joint PAME EPPR project to Update the database of shipping accidents in the Arctic contained in the 2009 Arctic Marine Shipping Assessment (AMSA) Report.*  **[CONTINUE THROUGH 2021?]** | 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. | USA, EPPR |
| **Engagement with Observer States**  *Identify options for leveraging Observer State interest and expertise.*  **[FOLLOW-UP ACTIVITIES FOR THE 2019-2021 PERIOD]** | 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. | USA, AIA (Shipping Expert Group)  Partners: Republic of Korea, Italy |
| **Update of PAME’s shipping priorities and recommendations**  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | Develop and adopt updated 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). | USA, Canada |
| **PLACEHOLDER - Arctic Shipping Trends** | A proposal from the PAME Secretariat to prepare bi-annual reports, collecting statistics on shipping information using data contained in the ASTD system which includes various information on shipping in the Arctic, such as emissions of ships, sailed distance by ships, ships in Arctic ports, size of ships and analysis on ship types. | ? |
| **Operationalization of the Arctic Shipping Traffic Database (ASTD) System**  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | This activity will operationalize the ASTD, including the construction by 2018 and subsequent operation, administration and management of a data repository hosted by the Norwegian Coastal Administration as set forth in the Cooperative Framework.  *Refer to Annex I for the ASTD Cooperative Framework* | Arctic states (PAME HoDs), ASTD Expert Group, PAME Secretariat, |
| **PLACEHOLDER: Arctic Marine Tourism Projects** | Iceland is working on two project proposals built on the Arctic Marine Tourism Project, pending on financing and further work on these proposals. Iceland will post an update prior to the PAME I-2019 meeting. | Iceland |
| **Operationalization of Arctic Shipping Best Practices Information Forum**  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | Hold an annual meeting of stakeholders and develop a web portal with links to key information related to the IMO’s Polar Code to serve 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.  *Refer to Annex II for the ToR for the Arctic Shipping Best Practices Forum* | Shipping Expert Group (SEG) co-chairs (USA/Canada), Finland, PAME Secretariat |
| **Develop an Implementation Plan for the ARIAS Strategy and Action Plan**  *Refer to CAFFs work plan*  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | CAFF, in cooperation with PAME, will develop an Implementation Plan for the ARIAS strategy and action plan. | SEG, PAME Secretariat |
| ***Marine Litter*** | | |
| **Desktop Study on Marine Litter including Microplastics in the Arctic (Phase I)**  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | Conduct a Desktop Study on Marine litter including microplastics in the Arctic to evaluate the scope of knowledge on marine litter in the Arctic, and its effects on the marine environment.  Based on its outcomes, explore whether there is a need for a Regional Action Plan on Marine Litter (possible Phase II for the period 2019-2021).  *Refer to Annex III for details on project plan, including timeline and budget.* | Iceland, Norway, Sweden, and AIA.  Collaboration and assistance will be sought, as relevant, from e.g. UNEP/GPA, AMAP and other organizations (e.g. OSPAR), as appropriate. |
| **PLACEHOLDER - Desktop Study on Marine Litter including Microplastics in the Arctic (Phase II)** | Based on Phase I of the project, Phase II of the project is to develop a Regional Action Plan on Marine Litter in the Arctic. The project would also develop a monitoring program on marine litter in the Arctic. | Iceland, Norway, Sweden, AIA? and OSPAR. |
| **Implementation of the Arctic Marine Strategic Plan (AMSP)** | | |
| ***AMSP Implementation Status Report 2017-2019***  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | 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 2017-2019 for submission to the Arctic Council Ministerial meeting in 2019. | PAME HoDs, PAME Secretariat |

**AMSP Goal 2**

***Conserve and protect ecosystem function and marine biodiversity to enhance resilience and the provision of ecosystem services.***

**BACKGROUND**:

Arctic marine ecosystems are under increasing pressure from multiple stressors including climate change, ocean acidification, long-range pollution, invasive species and increased human activities. These stressors, individual and cumulative, pose a challenge to the health and sustained viability of Arctic marine ecosystems. Stressors often exacerbate one another, leading to amplified cumulative impacts. Adding to that is the complex and trans-boundary nature of those stressors, which means that solutions often will require international and regional co-operation.

Arctic ecosystem services are of local, regional and global importance. Taking an ecosystem approach to management (EA) can enhance the resilience of marine and coastal biodiversity and help to safeguard marine ecosystems and their functions, allowing people to continue to benefit from the services that flow from healthy ecosystems.

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| **Project/activity** | **Description** | **Lead(s) and partners** |
| ***Ecosystem Approach to Management*** | | |
| **PLACEHOLDER: 2nd EA Conference** | Proposal to hold 2nd International EA Conference | Norway, USA, Joint EA Expert Group |
| **Preparation of Guidelines for EA/EBM Implementation in the Arctic**  *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.*  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | 1. Prepare guidelines addressing EA/EBM implementation in Arctic (marine) ecosystems (per Iqaluit declaration) following the EA Framework elements; adopt LMEs for management, describe Arctic Ecosystems, integrated ecosystem assessments, ecological objectives, and valuation of ecosystem services. EA Framework elements to receive particular attention are ecological objectives and integrated assessments. 2. Hold 6th EA workshop in late autumn 2017/spring 2018 scoping guidelines for implementing EA in the Arctic, with a focus on Integrated Ecosystem Assessment. 3. Hold 2nd International EA Conference 2018 on Integrated Ecosystem Assessment in the Arctic, Marine Protected Areas in Implementation of EA, and Review tatus of implementation EA and EA framework elements. Continue to promote common understandings and share knowledge and experiences on EA. | Norway, USA, Joint EA Expert Group  Partners: CAFF, AMAP, SDWG, WWF |
| **Integrated Ecosystem Assessment of the Central Arctic Ocean**  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | Continue emphasis on development of Integrated Ecosystem Assessment. Continue to report on developments within ICES[[1]](#footnote-1)/PICES[[2]](#footnote-2)/PAME Working Group on Integrated Ecosystem Assessment (WGICA) and other ICES activities, and the meetings of scientific experts on fish stocks in the central Arctic Ocean. | cross-cutting initiative in cooperation with ICES/PICES, CAFF, AMAP |
| ***Framework for a Pan-Arctic Network of MPAs*** | | |
| **Expansion and Refinement of the PAME MPA-network Toolbox.**  *Enhance PAME’s work on a Pan-Arctic Network of Marine Protected Areas and contributes to some of the near-term actions listed in the Framework for a Pan-Arctic Network of MPAs (near-term actions number 3, 4, 6, 7 and 9). (AMSP strategic action 7.2.10).*  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | The project will include workshops and associated desk-studies that will build on previous work of the MPA Expert Group. This information will be integrated into the Arctic MPA-network Toolbox, a practical, hands-on resource for MPA programs and partners in advancing the design and implementation of MPA networks.  Building on the first two MPA network workshops in September 2016 and February 2017, the PAME MPA-EG plans to hold two more workshops during the 2017-2019 work cycle to dedicate space for interactions and discussions among technical and country experts (e.g. researchers, government scientists, MPA managers, traditional and local knowledge-holders), Permanent Participants, and others.  Finland and Sweden are organizing the third workshop in September 2017, while Canada may be in a position to organize the fourth in 2018.  *Refer to Annex IV for details on project plan.* | Finland, Sweden, United States, MPA Expert Group  Partners: CAFF,WWF, CCU |
| **PLACEHOLDER: Project proposal on thematic factsheets** | A project proposal to develop a Factsheet series on Arctic climate change impacts (1st work package). The proposal is to:   * Develop a template for Arctic Council thematic factsheets * Develop a “master” Arctic Council fact sheet on Arctic climate change impacts * Develop the 1st thematic factsheet on Arctic climate change impacts on MPAs and indigenous people’s lives. | Finland, USA |

**AMSP Goal 3**

***Promote safe and sustainable use of the marine environment, taking into account cumulative environmental impacts.***

Improved access to the Arctic, national and regional priorities, and growing global demand for natural resources are driving an increase in resource extraction, shipping activities, and interest in living marine resources. Safe and sustainable use of living and non-living marine resources should be promoted in a manner that maintains the structure of eco-systems, their functions and productivity, applies EBM and provides economic opportunity. There is substantial potential for economic development in the Arctic that will benefit both local communities as well as the Arctic states.

Pollution in the Arctic marine environment comes primarily from sources outside the region. Impacts from increased economic activities inside the region can, combined with impacts from climate change, ocean acidification and long range pollution, produce cumulative impacts that put strain on these ecosystems. Mining, oil and gas activities, shipping, Arctic settlements, legacy sites such as military bases and mines, and land-based activities, are current and potential sources of marine pollution within the Arctic.

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| **Project/activity** | **Description** | **Lead(s) and partners** |
| ***Arctic Offshore Resource Exploration and Development*** | | |
| PLACEHOLDER: 2009 Arctic Offshore Oil and Gas Guidelines update | Update on selected sections of the 2009 Arctic Offshore Oil and Gas Guidelines. | USA |
| MEMA Follow-up | A proposal to follow up the MEMA project with the project; Guidance on Engagement of Indigenous Peoples in Offshore Oil and Gas Activities. |  |
| **Meaningful Engagement of Indigenous Peoples and Communities in Marine Activities project (MEMA) Part II Report.**  *Review and analyze the existing guidance and requirements in the region for engagement of indigenous peoples and local communities in marine activities to inform the Arctic Council on whether more or consolidated recommendations need to be made.*  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | Expand and reanalyze information and finish the MEMA Part II Report; Explore cooperation with SDWG and the PPs to follow up on the MEMA outcomes and other potential projects, such as the *Human Dimensions of Arctic EIAs* (refer to the SDWG project on *Arctic Environmental Impact Assessment and Public Participation – Good Practice Recommendations).*  *Refer to Annex V for details on project plan, including timeline for MEMA Part II.* | USA, Canada, AIA, Saami Council, ICC – (REDEG  Partner: SDWG |
| **Resource Exploration and Development Expert Group (REDEG) Information gathering**  *The REDEG will focus on information gathering on a number of germane and timely topics for the next two years.*  **[UPDATE ACCORDINGLY TO INCLDUE IN THE 2019-2021 WORK PLAN]** | 1. Identify and invite experts to address PAME at biennial meetings on the following topics: Offshore Renewable Energy; Noise in the Marine Environment; Offshore and Coastal Mining; and Offshore Oil and Gas. REDEG may also invite information papers - “Think Pieces” - from PAME members on any of these issues. The first being considered are on marine noise and/or offshore renewable energy. 2. Online Survey results for implementation of selected recommendations from the Systems Safety Management and Safety Culture Report with EPPR. | USA, Canada  Partner: EPPR |
| **Follow-up on the Framework Plan on Oil Pollution Prevention (FP-OPP).**  *Refer to EPPRs work plan on this item.* | 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. | REDEG and SEG |
| **Good Practice Recommendations for Environmental Impact Assessment, EIA, and Public Participation in EIA in the Arctic (Arctic-EIA)**  *Refer to SDWGs work plan on this item.* | PAME will contribute to this work based on its project plan and relevance to PAME’s work. | REDEG |

**AMSP Goal 4:**

***Enhance the economic, social and cultural well-being of Arctic inhabitants, including Arctic Indigenous Peoples and strengthen their capacity to adapt to changes in the Arctic marine environment.***

**BACKGROUND:**

The health, well-being, and adaptability of Arctic indigenous peoples and local communities are closely linked to the health of the marine ecosystems upon which they rely for food, commerce and cultural needs. Changes to marine ecosystems resulting from global climate change, the introduction of contaminants from outside the region, and other stressors can affect both the access to traditional foods and the quality of that food for indigenous peoples and local communities. It is likely that those living a traditional lifestyle will be most vulnerable to human health impacts from climate change related issues.

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| **Project/activitiy** | **Description** | **Lead(s) and partners** |
| **Capacity building, information outreach and collaboration** | 1. Strengthen information outreach and cooperation and collaboration with international/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. 4. 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) | PAME Chair/Secretariat |

# ANNEXES

[PROJECT PLANS FOR NEW AND APPROVED PROJECTS TO BE ANNEXED]

1. International Council for the Exploration for the Sea (ICES) [↑](#footnote-ref-1)
2. The North Pacific Marine Science Organization (PICES) [↑](#footnote-ref-2)