

PAME I-2021 WORKING GROUP MEETING REPORT

25 JANUARY - 5 FEBRUARY 2021

VIRTUAL ONLINE MEETING



| PAME
Protection of the Arctic Marine Environment

PAME I-2021

SUMMARY MEETING
REPORT
25 JAN. – 5 FEB. 2021

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PAME I-2021 SUMMARY

PAME's 1st biannual meeting of 2021 (PAME I-2021) was held online from 4-5 February. This was the second online PAME plenary meeting with 166 registered participants. PAME's five thematic expert group meetings (shipping, marine protected areas, ecosystem approach, marine litter and resource exploration and development) were held online from 25 January-2 February 2021.

The meeting agenda is available [here](#) and list of documents for the meeting is available [here](#).

The list of projects for the 2021-2023 PAME Work Plan is in Annex I, a list of PAME deliverables to the 2021 Ministerial is in Annex II and list of participants is in Annex III.

Marine Protected Areas (MPA)

PAME welcomed the inclusion of six MPA project proposals to the 2021-2023 PAME Work Plan (Annex I).

PAME approved the two Information Briefs developed by Finland and USA, "*Marine Protected Areas in a Changing Arctic*" and "*Indigenous Food Security in the Arctic - Implications of a Changing Ocean*" subject to final revisions. Both will be sent to SAOs and Ministers for approval.

PAME welcomed the report from Sweden on "*Modelling Arctic oceanographic connectivity to further develop PAME's MPA-network Toolbox*" for submission to SAOs and Ministers. PAME took note of the potential application of the report's data to other PAME projects in the 2021-2023 Work Plan, including and other Arctic Council Working Groups (WGs) as relevant.

Furthermore, PAME appreciated the ongoing work of the PAME and CAFF Secretariats to update the *Arctic Protected Areas Indicator Report from 2017* and proposed a change in the title of this updated report to "*Status and Trends for Arctic*

Conservation Measures". PAME noted delays in the current timeline for updating this Report and accepts a revised timeline with the aim to approve the Report intersessionally and submitted to SAOs as a Ministerial deliverable by end of April 2021.

Invasive Species

Kingdom of Denmark presented on Marine Invasive Alien Species in Arctic waters, and PAME welcomed the inclusion of the project proposal on this topic in the 2021-2023 PAME Work Plan and a Joint PAME/CAFF project for the implementation of ARIAS, and emphasizes the importance of engagement with the Shipping Expert Group in this work.

Arctic Marine Shipping

PAME welcomed the inclusion of twelve shipping project proposals to the 2021-2023 PAME Work Plan (Annex I).

PAME and its Shipping Expert Group (SEG) continue to advance several projects and initiatives to promote safe and sustainable navigation in the Arctic.

Linking with International Organizations

[The 4th Arctic Shipping Best Practice Information Forum meeting](#) was convened online 24-25 November. PAME invited the Arctic Shipping Best Practice Information Forum (Forum) Coordinating Committee to explore and, as appropriate, plan for one or two meetings during 2021.

PAME approved the draft joint PAME-Arctic Regional Hydrographic Commission (ARHC) policy statement on Arctic hydrography.

The IMO Secretariat will be invited to report to PAME II-2021 on IMO issues and developments of interest to PAME.

IMO Measures for Arctic Shipping

PAME took a note of the Russian Federation's 28 January submission of a draft Sustainable Arctic Shipping (SAS) project proposal. PAME further noted the Russian Federation's subsequent withdrawal of this submission to PAME and reiterated that shipping-related activities in the Arctic Council are within its and EPPR's purview and notes the general practice of ensuring coordination and collaboration with other subsidiary bodies of the Arctic Council.

PAME invited Arctic States and Observer States to submit to PAME on regular basis (e.g. annually) information on Polar Ship Certificates that have been issued by or on behalf of their maritime administrations since their last submission of such information for posting on the Arctic Shipping Best Practice Information Forum's Web-Portal.

PAME welcomed the proposal by the Russian Federation, the Kingdom of Denmark, and Finland to prepare a draft letter to the Antarctic Treaty Secretariat requesting support by Antarctic Treaty Contracting Parties for a Polar Code Inspection Campaign by the Paris Port State Control MOU and the Tokyo Port State Control MOU. PAME invited the project co-leads to circulate a draft letter to PAME members and seek consensus on its text intersessionally, followed by a request for HoDs approval. If approved, PAME instructs the PAME Chair to sign the letter and transmit to the Antarctic Treaty Secretariat.

Strengthening Passenger Ship Safety in Arctic Waters

PAME noted with appreciation the finalization of the Arctic Marine Tourism Project (AMTP) Work Package #1 (compilation of data on tourism vessels in the Arctic) and Work Package #2 (summary of existing site-specific guidelines for near-shore and coastal areas of the Arctic visited by passengers of marine tourism vessels and pleasure craft).

Addressing Impacts on Marine Mammals

PAME welcomed the Canada/Germany/WWF final report titled "Underwater Noise Pollution from Shipping in the Arctic" for submission to SAOs and Ministers.

Addressing the Infrastructure Deficit

PAME requests the Arctic States to continue to work collectively and within their national IMO delegations by correspondence to finalize draft MARPOL amendment text that would implement a Regional Port Waste Reception Facilities regime in the Arctic region.

Arctic Marine Traffic Systems

PAME requested that the Arctic Ship Traffic Data (ASTD) Expert Group and the project co-leads (USA, Norway, the PAME Secretariat) continue to augment the ASTD System with additional functionalities, data, and data layers as appropriate within available resources.

PAME invited the Arctic Shipping Status Report (ASSR) project co-leads (USA and the PAME Secretariat) to continue their efforts to raise awareness of the ASTD System and to develop ASSRs according to the agreed protocol for consultation with appropriate subject matter experts and HoD approval prior to issuance.

PAME released the [The first ASSR report \(ASSR #1\)](#) on March 31 2020 and [the second ASSR report \(ASSR #2\) on Heavy Fuel Oil \(HFO\) use by ships in the Arctic in 2019](#). The ASSR project co-leads will work with Canada to finalize and seek intersessional PAME HoDs approval for "ASSR #3: Shipping in the Northwest Passage: Comparing 2013 to 2019."

PAME noted its intersessional approval on 18 December 2020 of the USA led final report on the Compendium of Arctic Ship Accident (CASA) project along with a final data spreadsheet.

Engagement of Observers in PAME's Shipping-Related Activities

PAME invited the project co-leads (USA, Poland, Republic of Korea, Northern

Forum) to continue to advance the “Engagement of Observers in PAME’s Shipping-Related Activities” project and to submit a status update to PAME II-2021.

Updating PAME’s Shipping Priorities

PAME noted the intersessional SAO approval on 11 January 2021 of the proposed updates to the Arctic Marine Shipping Assessment (AMSA) Report’s 17 ministerial-approved Recommendations and requested the Secretariat to take appropriate steps to seek the necessary Ministerial approval of the proposed updates to those Recommendations.

Arctic Offshore Resource Exploration and Development

PAME welcomed the inclusion of four REDEG project proposals to the 2021-2023 PAME Work Plan (Annex I).

PAME noted that the Secretariat is finalizing the layout and design of the MEMA Reference Guide and brochure which will go forward to the SAOs and Ministers for approval.

PAME accepted the updated REDEG Terms of Reference subject to final minor editorial changes.

Ecosystem Approach to Management (EA)

PAME welcomed the inclusion of six EA projects in the Work Plan to the 2021-2023 PAME Work Plan (Annex I).

PAME welcomed the continued planning of the 7th EA workshop preferably in 2021 on element No. 5 of the EA framework, ‘Value the cultural, social, and economic goods and services produced by the ecosystems’, noting that information on the venue and time are still to be determined.

PAME welcomed the information on the work of the joint ICES/PICES/PAME Working Group for Integrated Ecosystem Assessment of the Central Arctic Ocean (WGICA) and noted that the management advisory product “Ecosystem Overview”

will be passed to the ICES advisory drafting group and is expected to be finished in 2021. The next step is to produce a report with more emphasis on impacts of human activities on the Central Arctic Ocean (CAO) ecosystem. The outline for this report has been circulated within PAME for scientific input, comment, and orientation, and feedback is due no later than 1 March 2021. The final report is expected in late 2021.

PAME welcomed efforts to strengthen the communication between the EA Expert Group co-chairs and the relevant Arctic Council WG members to secure coordination of work plans and efforts towards Ecosystem Approach to management; to inform about progress and status of respective work; and to seek inputs, as relevant.

Development of a Regional Action Plan on Marine Litter in the Arctic (ML-RAP)

PAME welcomed the inclusion of four marine litter project proposals to the 2021-2023 PAME Work Plan (Annex I).

PAME welcomed progress made on the Regional Action Plan on Marine Litter in the Arctic (ML-RAP) and supported its submission to the SAOs and Ministers for approval. PAME thanked other Arctic Council Working Groups for their contributions to products on this cross-cutting issue.

PAME welcomed continued communications and outreach efforts on marine litter in the Arctic, including the development of a communications plan on the ML-RAP through the PAME Secretariat.

Reporting on implementation progress on the Arctic Marine Strategic Plan (AMSP)

PAME welcomed the project proposal on Targeted updating of the Arctic Council Arctic Marine Strategic Plan (AMSP 2015)

for inclusion to the 2021-2023 PAME Work Plan.

PAME agreed to a timeline to finalize the 3rd reporting on progress/implementation of the 2015-2025 Arctic Marine Strategic Plan (AMSP) for submission to SAOs and Ministers for information.

Collaboration and coordination with other Working Groups

PAME continually works towards strengthening the coordination and collaboration with other working groups (WGs) by inviting them to nominate experts in PAME's expert groups working on activities of mutual relevance. Furthermore, PAME makes an effort to participate in meetings of other WGs, e.g., through its Heads of Delegations (HoDs) for coordination purposes, and shares work on progress to seek input, as relevant.

PAME continues to liaise with CAFF on MPAs and invasive species work and has sought input from AMAP in the development of the MPA Information Briefs. PAME continues to coordinate its work with EPPR, noting in particular the joint PAME-EPPR "*New Low Sulphur Fuels, Fate and Behavior in Cold Water Conditions*" project. Inputs from all WGs has been sought in the development of the ML-RAP, and notes that access to the ASTD System is open for the WGs as well.

Observers at the PAME I-2021 Working Group Meeting

PAME continues to strengthen its engagement with Observers in PAME's shipping-related activities by inviting one representative for each meeting to give a presentation on its Arctic interest and activities. India presented at PAME I-2021 on its research interest in the Arctic. PAME I-2021 and its expert group meetings were collectively attended by 166 participants, of which 68 were Observers, representing all 13 Arctic Council Observer States and 14 Observer Organizations.

PAME Next Meeting and Administration

The next PAME meeting (PAME II-2021) will take place in September 2021 and the United States has offered to host this meeting in Anchorage, Alaska if conditions allow.

PAME thanked Finland for Chairing PAME 2019-2021 and welcomed Sweden as the incoming Chair of PAME for the period of 2021-2023, consistent with the agreed PAME Chair rotation. PAME welcomed the United States offer to continue in the role of Vice-Chairing PAME.

ANNEX I: PAME I-2021 RECORD OF DECISIONS AND FOLLOW-UP ACTIONS

Opening of the Meeting

The PAME Chair, Paula Kankaanpää, welcomed participants to the PAME I-2021 online Meeting.

Information and various updates (Agenda 3)

PAME takes note of:

- ✓ *Summary outcomes from the SAO Meeting 17-19 November 2020, the SAO Marine Mechanism (SMM webinars in Sep-Oct 2020), and preparations for the upcoming SAO Meeting (16-18 March 2021).*
- ✓ *Summary of the work by the ‘Group of Interested Parties on developing Guidance to Address Issues Related to the Implementation of the Cape Town Agreement (CTA) for Fishing Vessel Safety’ and its submission to IMO for discussion at MSC 103, and the encouragement from IMO to participate in a virtual ‘Europe, Eastern Europe and Western Asia Region’ Webinar on the implementation of the CTA on 21-22 June 2021.*
- ✓ *Summaries on the status on the Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ, Aug 2021); UNEA (online meeting Feb 2021) and decisions such as marine litter postponed (February 2022); UNEP’s Regional approaches to be included in the post 2020 biodiversity framework; the United Nations Decade of Ocean Science beginning in 2021 and the process underway to develop an Arctic Ocean Decade Action Plan, due to be finalized in March 2021; and the Convention on Biological Diversity post-2020 framework process underway, due to be finalized October 2021, at COP15.*

PAME thanks the Russian Federation for the summary of their 2021-2023 Arctic Council Chairmanship Program, and note in particular the items relevant to PAME on effort to combat marine plastic litter in the fishing and shipping sectors, operations of ships in polar conditions, and preparing ships for navigation in polar waters and ship emissions reductions.

PAME thanks the representative of India, Archana Singh, for her presentation on India’s Arctic interests and contributions to PAME’s work.

PAME thanks all of the speakers for their presentations in the pre-meetings and in plenary.

Framework for a Pan-Arctic Network of Marine Protected Areas (MPAs) (Agenda 4)

PAME welcomes the report on “Modelling Arctic oceanographic connectivity to further develop PAME’s MPA-network Toolbox” and will submit it to the SAOs and the 2021 Ministerial. PAME takes note of the potential application of the report’s data to other PAME projects in the 2021-2023 Work Plan and other Arctic Council Working Groups (WGs) as relevant.

PAME approves the two Information Briefs “Marine Protected Areas in a Changing Arctic” and “Indigenous Food Security in the Arctic - Implications of a Changing Ocean” provisional on the inclusion of MPA maps reflecting the 2021 CAFF/PAME Arctic Protected Areas dataset. The complete Information Briefs will then be forwarded to SAOs and Ministers for approval.

PAME welcomes continued expansion and refinement of the MPA-network Toolbox, continued work on Arctic oceanographic connectivity, a revisit of the Framework for a Pan-Arctic Network of MPAs (2015) for potential updates, and the possible development of additional Information Briefs in the 2021-2023 biennium. PAME continues to welcome collaboration from other Arctic Council WGs.

PAME welcomes the inclusion of the six MPA project proposals to the 2021-2023 PAME Work Plan and project leads will aim to revise project proposals as needed according to the agreed timeline (Annex I).

PAME appreciates the ongoing work of the PAME and CAFF Secretariats to update the 2017 Arctic Protected Areas Indicator Report and proposes a change in the title of this updated report to “Status and Trends for Arctic Conservation Measures”.

PAME notes delays in the current timeline for updating this Report and accepts the following revised timeline:

- ✓ *Jan/Feb 2021: First draft of updated Arctic Protected Areas dataset compiled and analysed.*
- ✓ *March: First draft of the new indicator report circulated for CAFF and PAME review.*
- ✓ *Mar/Apr 2021: Review comments due and report revised accordingly.*
- ✓ *April 2021: Second draft submitted to CAFF and PAME review/approval.*
- ✓ *April 2021 (end of): Report approved intersessionally and submitted to SAOs as a Ministerial deliverable.*
- ✓ *May 2021: Indicator report and dataset released.*

Protection from Invasive Species (Agenda 5)

PAME welcomes the presentation by the Kingdom of Denmark on Marine Invasive Alien Species in Arctic waters, and welcomes the inclusion of the project proposal on this topic in the 2021-2023 PAME Work Plan.

PAME recognizes the importance of a joint CAFF and PAME project for the implementation of ARIAS, and emphasizes the importance of engagement with the Shipping Expert Group in this work.

The project leads, Kingdom of Denmark, Canada and Norway, will aim to revise project proposal as needed according to the agreed timeline (Annex I).

Arctic Marine Shipping Assessment (Agenda 6)

Theme I: Enhanced Arctic Maritime Safety

AMSA I(A) - Linking with International Organizations

PAME invites the Arctic Shipping Best Practice Information Forum (Forum) Coordinating Committee to explore and, as appropriate, plan for one or two meetings during 2021. PAME also invites the Forum Coordinating Committee to provide a report on the outcomes of any Forum meetings that take place prior to PAME II-2021.

PAME approves the draft joint PAME-Arctic Regional Hydrographic Commission (ARHC) policy statement on Arctic hydrography. PAME requests the project lead (USA) communicate with the ARHC to determine whether it approves the draft statement as is or has any suggested revisions. If the ARHC suggests any revisions, PAME requests that the USA circulate those revisions

intersessionally for PAME review and HoD approval. Once consensus text is achieved, the PAME requests that the Secretariat forwards the draft Statement to the SAOs for action, including assistance in its issuance as a joint Arctic Council-ARHC Statement.

PAME invites the IMO Secretariat to report to PAME II-2021 on IMO issues and developments of interest to PAME.

PAME invites the SEG Co-Chairs to identify an Observer State interested and willing to make a presentation at PAME II-2021 regarding its Arctic interests, particularly related to shipping.

AMSA I(B) - IMO Measures for Arctic Shipping

PAME notes the Russian Federation's 28 January submission of a draft Sustainable Arctic Shipping (SAS) project proposal. PAME further notes the Russian Federation's subsequent withdrawal of this submission to PAME. PAME reiterates that shipping-related activities in the Arctic Council are within its and EPPR's purview and notes the general practice of ensuring coordination and collaboration with other subsidiary bodies of the Arctic Council.

PAME invites Arctic States and Observer States to identify and submit by 1 March to the PAME Secretariat Polar Code subject matter expert points of contact to participate in a Norwegian-led correspondence group that will further explore and discuss issues highlighted in Annex I of 'PAME (I)/21/SEG pre-meeting/4/d/i/Implementation of the Polar Code PAME-2021' and advise on project next steps. PAME invites Norway to submit a status report on project developments to PAME II-2021.

PAME invites Arctic States and Observer States to submit to PAME on regular basis (e.g. annually) information on Polar Ship Certificates that have been issued by or on behalf of their maritime administrations since their last submission of such information for posting on the Arctic Shipping Best Practice Information Forum's Web-Portal. Such information is to include if possible, the name of the ship, IMO number, the type of ship, gross registered tonnage, and ice class, and make use, if helpful, of a template that the PAME SEG Co-Chairs will circulate and post intersessionally to the PAME website.

PAME welcomes the proposal by the Russian Federation, the Kingdom of Denmark, and Finland to prepare a draft letter to the Antarctic Treaty Secretariat requesting support by Antarctic Treaty Contracting Parties for a Polar Code Inspection Campaign by the Paris Port State Control MOU and the Tokyo Port State Control MOU. PAME invites the project co-leads to circulate a draft letter to PAME members and seek consensus on its text intersessionally, followed by a request for HoD approval. If approved, PAME instructs the PAME Chair to sign the letter and transmit to the Antarctic Treaty Secretariat.

PAME invites Norway to continue to advance the joint PAME-EPPR "New Low Sulphur Fuels, Fate and Behavior in Cold Water Conditions" project and to provide a status update to PAME II-2021.

PAME invites Iceland, WWF, and CCU to provide a status update on their co-led project to survey vessel operations on selected wastewater discharges in the Arctic to PAME II-2021.

PAME invites Iceland to submit a revised draft project proposal on "Black Carbon Emissions from Shipping Activity in the Arctic and Technology Developments for their Reduction" highlighting the revisions from the project included in the PAME 2019-2021 Work Plan and clarifying the updated project proposal's deliverables. PAME invites its members to review and comment on the draft project proposal intersessionally and then requests Iceland to revise the project proposal in light of comments received and submit it for PAME approval as soon as practicable.

AMSA I(D) - Strengthening Passenger Ship Safety in Arctic Waters

PAME notes with appreciation the finalization of the Arctic Marine Tourism Project (AMTP) Work Package #1 (compilation of data on tourism vessels in the Arctic) and Work Package #2 (summary of existing site-specific guidelines for near-shore and coastal areas of the Arctic visited by passengers of marine tourism vessels and pleasure craft). PAME requests the Secretariat to revise and finalize the format of the final project report. Further work may be proposed intersessionally.

Theme II: Protecting Arctic People and the Environment

AMSA II(G) - Addressing Impacts on Marine Mammals

PAME welcomes the Canada/Germany/WWF report titled “Underwater Noise Pollution from Shipping in the Arctic”.

PAME invites final comments on the Underwater Noise in the Arctic Phase II Project proposal (PAME(I)/2/SEG pre-meeting/5/f/draft project plan: Underwater Noise in the Arctic Phase II) no later than 10 February 2021. PAME notes that the United States has decided to serve as a co-lead of the Phase II Project. PAME invites the project co-leads (Canada, USA, WWF) to revise the draft project proposal and submit it for intersessional HoD approval no later than 12 February.

Theme III: Building the Arctic Marine Infrastructure

AMSA III(A) - Addressing the Infrastructure Deficit

PAME requests the Arctic States to continue to work collectively and within their national IMO delegations by correspondence to finalize draft MARPOL amendment text that would implement a Regional Port Waste Reception Facilities regime in the Arctic region. 1 March is the deadline for PAME member comments on the draft MARPOL amendment text, which has been circulated by the project co-leads (Russian Federation and USA) to the correspondence group made up of subject matter expert representatives from Canada, Finland, Iceland, Norway, the Russian Federation and the USA. PAME invites the project co-leads:

- ✓ *to prepare and circulate to Arctic States for comment a paper containing draft MARPOL amendments text for submission jointly by Arctic States to the ninth meeting of IMO’s Subcommittee on Pollution Prevention and Response (PPR 9) in 2022; and*
- ✓ *To submit a status update on the outcome of the project’s correspondence group activities to PAME II-2021.*

AMSA III(B) - Arctic Marine Traffic Systems

PAME requests that the Arctic Ship Traffic Data (ASTD) Expert Group and the project co-leads (USA, Norway, the PAME Secretariat) continue to augment the ASTD System with additional functionalities, data, and data layers as appropriate within available resources. PAME requests that each participating Arctic State that has not done so designate a subject matter expert to serve on the ASTD Expert Group. PAME invites the project co-leads to continue their efforts to raise awareness of the ASTD System, and to provide a status update to PAME II-2021.

PAME invites the Arctic Shipping Status Report (ASSR) project co-leads (USA and the PAME Secretariat) to continue to develop ASSRs according to the agreed protocol for consultation with appropriate subject matter experts and HoD approval prior to issuance. PAME requests the project co-leads to work with Canada to finalize and seek intersessional HoD approval for “ASSR #3, Shipping in the Northwest Passage: Comparing 2013 to 2019.”

PAME notes its intersessional approval on 18 December 2020 of the USA led final report on the Compendium of Arctic Ship Accident (CASA) project along with a final data spreadsheet.

Engagement of Observers in PAME's Shipping-Related Activities

PAME invites the project co-leads (USA, Poland, Republic of Korea, Northern Forum) to continue to advance the "Engagement of Observers in PAME's Shipping-Related Activities" project and to submit a status update to PAME II-2021.

AMSA Refresh - Updating PAME's Shipping Priorities

PAME notes the previous intersessional SAO approval on 11 January 2021 of the proposed updates to the Arctic Marine Shipping Assessment (AMSA) Report's 17 ministerial-approved Recommendations as depicted in PAME(I)/21/SG Pre-Meeting/3/c/iii/PAME II-2020. PAME requests the Secretariat to take appropriate steps to seek the necessary Ministerial approval of the proposed updates to those Recommendations.

Arctic Offshore Resource Exploration and Development (Agenda 7)

PAME notes that the Secretariat is finalizing the layout and design of the MEMA Reference Guide and brochure which will go forward to the SAOs and Minister for approval.

PAME requests that the Secretariat reach out to the Arctic Council Secretariat, for a list of Indigenous languages and list of possible translators.

PAME will also investigate sources of funding for possible MEMA multi-media products.

PAME notes the contributions of Arctic States to the compilation of the Offshore Oil and Gas Activities Survey, to go forward to the SAOs.

PAME accepts the updated REDEG Terms of Reference subject to final minor editorial changes.

PAME approves the four REDEG project proposals for inclusion in the 2021-2023 PAME Work Plan (Annex I).

Ecosystem Approach to Management (Agenda 8)

PAME welcomes the continued planning of the 7th EA workshop preferably in 2021 on element No. 5 of the EA framework, 'Value the cultural, social, and economic goods and services produced by the ecosystems', and agrees to the objectives and scope as outlined in the workshop prospectus. PAME notes that information on the venue and time are still to be determined.

PAME welcomes the information on the work of the joint ICES/PICES/PAME Working Group for Integrated Ecosystem Assessment of the Central Arctic Ocean (WGICA) and notes that the management advisory product "Ecosystem Overview" will be passed to the ICES advisory drafting group and is expected to be finished in 2021. The next step is to produce a report with more emphasis on impacts of human activities on the Central Arctic Ocean (CAO) ecosystem. The outline for this report has been circulated within PAME for scientific input, comment, and orientation, and feedback is due no later than 1 March 2021. The final report is expected in late 2021.

PAME notes that the project "Synthesis Report on Ecosystem Status, Human Impacts and Management Measures in the Central Arctic Ocean" included in the 2021-2023 Work Plan, will be run in parallel with the WGICA report on human activities in the CAO and will benefit from mutual exchange of information and updates with WGICA.

PAME welcomes efforts to strengthen the communication between the EA-EG co-chairs and the relevant Arctic Council WG members to secure coordination of work plans and efforts towards

Ecosystem Approach to management; to inform about progress and status of respective work; and to seek inputs, as relevant.

PAME welcomes the inclusion of six EA projects in the Work Plan for 2021-2023 subject to revisions based on comments received according to the agreed timeline (Annex I).

Regional Action Plan on Marine Litter in the Arctic (Agenda Item 9)

PAME welcomes progress made on the Regional Action Plan on Marine Litter in the Arctic (ML-RAP) and supports its submission to the SAOs by February 15 for their review and resolution of text remaining in brackets at the 16-18 March 2021 SAO Meeting. PAME intends for the ML-RAP to advance to the Ministerial for approval and thanks other Arctic Council Working Groups for their contributions to products on this cross-cutting issue.

PAME welcomes continued communications and outreach efforts on marine litter in the Arctic, including the development of a communications plan on the ML-RAP through the PAME Secretariat.

PAME welcomes the inclusion of the four marine litter project proposals to the 2021-2023 PAME Work Plan, subject to any final revisions according to the agreed timeline (Annex I).

PAME also welcomes the development of additional projects intersessionally for future work under the ML-RAP and thanks the Secretariat for keeping a living document of these ideas.

Preparations for the 2021 Ministerial Meeting (Agenda 10)

The SAO Report to Ministers is divided into two parts: 2019-2021 Achievements and a 2021-2023 Work Plan. PAME decided on the following process and timeline:

Report on 2019-2021 Achievements:

*PAME request its Secretariat to revise the PAME sections on its 2019-2021 Achievements based on discussions at this Meeting and submit to the SAOs on **9 February** with a copy to PAME HoDs.*

*Outstanding comments, if any, to be submitted to the PAME Secretariat by **22 March**. The PAME Secretariat to submit these to the Arctic Council by **26 March**.*

PAME Work Plan 2021-2023:

*PAME welcomes the projects listed in Annex I for inclusion to the 2021-2023 PAME Work Plan and requests the Secretariat to revise the 2021-2023 PAME Work Plan (short version) based on discussions at this Meeting and submit to SAOs on **9 February** with a copy to PAME HoDs.*

*Outstanding comments, if any, to be submitted to the PAME Secretariat by **22 March**. The PAME Secretariat to submit these to the SAOs by **26 March**.*

*PAME requests the Secretariat to revise the 2021-2023 PAME Work Plan (longer version with project plans annexed) based on discussions at this Meeting and send to PAME Members for their review by **22 March** with comments due **26 March**. PAME Secretariat to prepare the release of the document i.e., final layout and printing by mid-April.*

PAME welcomes the project proposal on Targeted updating of the Arctic Council Arctic Marine Strategic Plan (AMSP 2015) for inclusion to the 2021-2023 PAME Work Plan, subject to any final revisions according to the timeline in Annex I.

PAME decided on the following process/timeline to finalize the 3rd AMSP Implementation Report for submission to SAOs and Ministers for information.

- ✓ *Feb 15: Revised draft version submitted to SAOs for information.*

- ✓ *March 26: Revised based on comments and circulate final draft to PAME, including proposed layout.*
- ✓ *Mid-April: preparation for release of the document i.e., final layout and printing.*

A list of agreed projects for the 2021-2023 PAME Work Plan is in Annex I.

A list of PAME deliverables to the 2021 Ministerial is in Annex II.

PAME Administration and Next Meeting

PAME requests its Chair/Vice-Chair to contribute to the upcoming SAO meeting (16-18 March 2021), in addition to submitting a two-page PAME progress report as requested by the Arctic Council Chairmanship.

PAME invites its delegations to include experts on shipping, oil and gas/resource exploration and development, ecosystem approach, MPAs, marine litter, and invasive species in their delegations to the PAME II-2021 meeting.

The PAME Chair will inform HoDs and PPs on requests to present on PAME's work in other fora and make best efforts to share the presentations in advance to allow an opportunity for comments and input.

PAME thanks Finland for Chairing PAME 2019-2021 and welcomes Sweden as the incoming Chair of PAME for the period of 2021-2023, consistent with the agreed PAME Chair rotation.

PAME appreciates the Vice-Chairing of PAME by the United States and welcomes its continuation in this role for the 2021-2023 period.

PAME welcomes the United States offer to host PAME II-2021 in Anchorage, Alaska if conditions allow (September 2021 – dates to be confirmed).

ANNEX II: LIST OF PROJECTS FOR PAME WORK PLAN (2021-2023)

PAME welcomes the inclusion of the following projects to the 2021-2023 PAME Work Plan. Project leads will aim to revise project proposals as needed, according to the following timeline:

- ✓ 9 February: Co-leads finalize short project proposals, noting additional edits may be provided prior to the 26 March version of SAO Report.
- ✓ 26 February: Co-leads circulate detailed project proposals to PAME members for final review.
- ✓ 12 March: PAME members provide final comments to detailed project proposals.
- ✓ 22 March: Co-leads finalize detailed project proposals to include in the 26 March version of the SAO Report.

Framework for a Pan-Arctic Network of MPAs (6 activities)

1. Continue the project on Modelling Arctic Oceanographic Connectivity, with the inclusion of the Central Arctic Ocean, to further develop PAME's MPA-network Toolbox (Lead: Sweden)
2. Different Ways of Knowing: Applying Indigenous and Local Knowledge and Scientific Information to Arctic Conservation Planning (Leads: Canada, USA, AIA, ICC, Saami Council (TBC), WWF)
3. Develop additional Information Briefs on MPAs under change (Leads: Finland, USA, Partner: CAFF (TBC))
4. Revisiting the Framework for a Pan-Arctic Network of MPAs (2015) for potential updates (Lead: MPA Expert Group)
5. Other Effective Area-based Conservation Measures (OECMs) in the Arctic (Leads: Kingdom of Denmark, Canada)
6. Expansion and refinement of the MPA-network Toolbox (Lead: MPA Expert Group. Partners: CAFF, WWF, CCU (TBC))

Protection from Invasive Species

1. Transfer of marine invasive species by ships (joint PAME-CAFF Project) (Leads: Kingdom of Denmark, Canada, Norway; Partner: CAFF)

Arctic Marine Shipping (12 activities)

1. Black Carbon Emissions from Shipping Activity in the Arctic and Technology Developments for their Reduction: Removal of Undesirable Gases and Soot-Particles from Marine Engines Exhaust gases (Lead: Iceland)
2. Arctic Shipping Status Reports (Leads: United States, PAME Secretariat)
3. New Low Sulphur Fuels, Fate, and Behavior in Cold Water Conditions (PAME-EPPR Joint Project) (Lead: Norway)
4. Collaboration with the Arctic Regional Hydrographic Commission (ARHC) (Lead: United States, Others (TBC))
5. Underwater Noise in the Arctic: Understanding Impacts and Defining Management Solutions - Phase II (Leads: Canada, United States, WWF, Germany (TBC))

6. Systematically Strengthening Observer Engagement in PAME's Shipping Work (Leads: United States, Republic of Korea, Poland, Northern Forum)
7. Arctic Ship Traffic Data (ASTD) Project (Leads: United States, Norway, PAME Secretariat)
8. The Arctic Shipping Best Practice Information Forum (Leads: the Russian Federation, United States, Canada)
9. Interpretation of the Polar Code (Lead: Norway)
10. Survey of Select Wastewater Discharges (Leads: Iceland, WWF, CCU)
11. Arctic Port Reception Facilities Inventory (Lead: USA)
12. Arctic Arrangement for Regional Reception Facilities (Leads: USA, the Russian Federation)

Arctic Offshore Resource Exploration and Development (REDEG) (4 activities)

1. MEMA Outreach and Next Steps (Leads: United States, Canada, AIA, ICC, Saami Council and Northern Forum)
2. Management of Arctic Marine Oil and Gas Associated Noise (Leads: United States (TBC) and other Co-lead needed). Project leads are in discussion with SEG on possible linkages to the Underwater Noise in the Arctic Phase II Project .
3. Update the Arctic Offshore Oil and Gas Regulatory Resource (AOOGRR). (Leads: United States in close collaboration with PAME Secretariat)
4. Existing Waste Management Practices and Pollution Control for Marine and Coastal Mining (Leads: Canada and Kingdom of Denmark). Project leads are in discussion with CAFF on possible linkages to their Mainstreaming Biodiversity in Arctic Mining Project (MBAM).

Ecosystem Approach to Management (EA) (6 activities)

1. 7th EA Workshop on Value and Valuation ecosystems (Leads: Norway/USA in close collaboration with the EA expert group)
2. Planning of the third International Science and Policy Conference on Implementation of the Ecosystem Approach to Management in the Arctic. (Leads: Norway and the United States in close collaboration with the EA expert group)
3. Integrated Ecosystem Assessment (IEA) of the Central Arctic Ocean (WGICA) (Leads: Norway, United States; Partners: ICES, PICES)
4. Revise the Ecosystem Approach Framework (EA) and develop a tool for following EA implementation in the Arctic LMEs (Leads: Norway and the United States in close collaboration with the EA expert group)
5. Report on development in defining or setting Ecological Objectives (Leads: Norway/USA in close collaboration with the EA expert group)
6. Synthesis Report on Ecosystem Status, Human Impacts and Management Measures in the Central Arctic Ocean(CAO) (Leads: Canada, Finland, Sweden, US, WWF)

Marine Litter (4 activities)

1. Develop an Implementation Plan for the Regional Action Plan on Marine Litter in the Arctic (ML-RAP) (Leads: Kingdom of Denmark, Finland, Norway, United States)
2. Arctic Coastal Cleanup (Leads: Norway, Others (TBC))
3. Fishing Practice & Gear Inventory: Enhancing Understanding of Abandoned Lost or otherwise Discarded Fishing Gear (ALDFG) (Leads: Norway (TBC), USA (TBC))
4. ML Communication Plan and Outreach Activities (Lead: PAME Secretariat)

Arctic Marine Strategic Plan (AMSP) (2 activities)

1. Targeted updating of the Arctic Council Arctic Marine Strategic Plan (AMSP 2015) (Leads: Norway, USA, Canada; Partners: all Arctic Council WGs)
2. 4th AMSP Implementation Status Report 2021-2023 (Leads: PAME HoDs, PAME Secretariat, in collaboration with the other Arctic Council WGs)

ANNEX III: LIST OF DELIVERABLES TO THE 2021 MINISTERIAL

PAMEs activities for SAO and Ministerial approval (6 activities)

1. Final Report and Proposed Updates to the 2009 Arctic Marine Shipping Assessment (AMSA) Report Recommendations for Ministerial Approval (USA/Canada) (for approval)
2. Arctic Council-Arctic Regional Hydrographic Commission (ARHC) Joint Policy Statement on Hydrography in the Arctic (for approval)
3. Two Information Briefs on Marine Protected Areas (MPAs) under change: (Finland/USA)
 - a. Information Brief on “Marine Protected Areas in a Changing Arctic”(for approval)
 - b. Information Brief on “Indigenous Food Security in the Arctic - Implications of a Changing Ocean (for approval)
4. Meaningful Engagement of Indigenous Peoples and Local Communities in Marine Activities (MEMA) Reference Guide (USA/Canada/AIA/ICC/Saami Council/Northern Forum) (for approval)
5. Regional Action Plan on Marine Litter in the Arctic (Iceland, Norway, Sweden, Canada, Finland, Kingdom of Denmark, USA, AIA, OSPAR) (for approval)
6. 2021-2023 PAME Work Plan (for the SAO Report to Ministers) (for approval)

PAMEs activities for SAO and Ministerial welcome (7 activities):

1. Compendium of Arctic Ship Accidents (CASA) Project, Final Report (Joint PAME/EPPR Project) (USA) (for welcome)
2. Underwater Noise in the Arctic – Understanding Impacts and Defining Management Solutions - Final Phase I Report (Canada/WWF) (for welcome)
3. Final Report on Arctic State Safe and Low-Impact Marine Corridor Initiatives (Canada/Iceland/AIA) (for welcome)
4. Report on Arctic Marine Tourism: Development in the Arctic and enabling real change (Iceland/Canada/UK) (for welcome)
5. Update on the Arctic Protected Areas Indicator Report from 2017 (PAME and CAFF Secretariats) (for welcome)
6. Final Report on Modelling Arctic Oceanographic Connectivity to further develop PAME’s MPA toolbox (Sweden) (for welcome)
7. 3rd reporting on progress/implementation of the 2015-2025 Arctic Marine Strategic Plan (AMSP) (for welcome)

PAME activities for SAOs and Ministerial information (6 activities):

1. Status Report on the Arctic Shipping Best Practice Information Forum (Iceland/USA/Canada/PAME Secretariat)
2. Status Report on the Arctic Ship Traffic Data (ASTD) System (Norway/USA)
3. Three Arctic Shipping Status Reports (USA/PAME Secretariat)
 - a. The Increase in Arctic Shipping 2013-2019
 - b. Heavy Fuel Oil (HFO) Use by Ships in the Arctic 2019
 - c. Shipping in the Northwest Passage: Comparing 2013 to 2019
4. Status Report on proposed amendments to MARPOL to allow the establishment of regional arrangements of port reception facilities in the Arctic (USA/Russian Federation)

5. Status Report on Offshore Oil and Gas Activities and Regulatory Frameworks in the Arctic (USA)
6. Progress report on the EA-EG 2019-2021 Work (Norway/USA)

ANNEX IV: LIST OF PARTICIPANTS

| | First name | Family name | Country / Organization |
|----------------------|------------------|----------------|------------------------|
| 1 | Paula | Kankaanpää | Finland |
| 2 | Soffía | Guðmundsdóttir | Iceland |
| 3 | Hjalti | Hreinsson | Iceland |
| 4 | Olga | Pálsdóttir | Iceland |
| ARCTIC STATES | | | |
| 5 | Maya | Gold | Canada |
| 6 | Cortney | Watt | Canada |
| 7 | Alain | Dupuis | Canada |
| 8 | Bethany | Schroeder | Canada |
| 9 | Jody | Willis | Canada |
| 10 | Debra | Beauchamp | Canada |
| 11 | Marina | Petrovic | Canada |
| 12 | Jessica | Bolle | Canada |
| 13 | Doug | Brunt | Canada |
| 14 | Drummond | Fraser | Canada |
| 15 | Caroline | Gravel | Canada |
| 16 | Dominique | Jolicoeur | Canada |
| 17 | Sara | German | Canada |
| 18 | David | VanderZwaag | Canada |
| 19 | Robert | Kadas | Canada |
| 20 | Christian | Holloway | Canada |
| 21 | Hui | Peng | Canada |
| 22 | Maureen | Copley | Canada |
| 23 | Charlotte B | Mogensen | Kingdom of Denmark |
| 24 | Andreas Haugaard | Christensen | Greenland |
| 25 | Outi | Tervo | Greenland |
| 26 | Anna | Dahl | Faroe Islands |
| 27 | Anders | Mosbech | Denmark/ Greenland |
| 28 | Julie | Grauslund | Denmark |
| 29 | Jan | Ekebon | Finland |

| | First name | Family name | Country / Organization |
|----|---------------|-------------------|------------------------|
| 30 | Sara | Viljanen | Finland |
| 31 | Eero | Hokkanen | Finland |
| 32 | Harri | Kuosa | Finland |
| 33 | Hermann | Kaartokallio | Finland |
| 34 | Anita | Makinen | Finland |
| 35 | Stefán | Einarsson | Iceland |
| 36 | Sigurros | Friðriksdóttir | Iceland |
| 37 | Katrín Sóley | Bjarnadóttir | Iceland |
| 38 | Sverrir | Konráðsson | Iceland |
| 39 | Catherine | Chambers | Iceland |
| 40 | Fredrik | Theisen | Norway |
| 41 | Anne | Berteig | Norway |
| 42 | Lill Veronika | Benjaminsen | Norway |
| 43 | Lis | Jørgensen, Lindal | Norway |
| 44 | Alf Håkon | Hoel | Norway |
| 45 | Lise | Langard | Norway |
| 46 | Siv Christin | Gaalaas | Norway |
| 47 | Cecilie | von Quillfeldt | Norway |
| 48 | Jon-Arve | Royset | Norway |
| 49 | Andrea | Skarstein | Norway |
| 50 | Bodil | Pedersen | Norway |
| 51 | Irmelin | Skigelstrand | Norway |
| 52 | Helene | Kaltenborn | Norway |
| 53 | Natalia | Kutaeva | Russian Federation |
| 54 | Sergey | Tolmachev | Russian Federation |
| 55 | Dmitrii | Iudin | Russian Federation |
| 56 | Oleg | Soliakov | Russian Federation |
| 57 | Julia | Zvorikina | Russian Federation |
| 58 | Vladimir | Kuzmin | Russian Federation |

| | First name | Family name | Country / Organization |
|-------------------------------|-----------------|-------------|------------------------|
| 59 | Jessica | Nilsson | Sweden |
| 60 | Christian | Harlos | Sweden |
| 61 | Anna | Karlsson | Sweden |
| 62 | Mia | Olausson | Sweden |
| 63 | Karin | Wall | Sweden |
| 64 | Fredrik | T Lindgren | Sweden |
| 65 | Göran | Broström | Sweden |
| 66 | Per | Jonsson | Sweden |
| 67 | Elizabeth | McLanahan | United States |
| 68 | Peter | Oppenheimer | United States |
| 69 | Laura | Strickler | United States |
| 70 | Lauren | Wenzel | United States |
| 71 | Zachary | Cannizzo | United States |
| 72 | Victoria (Tori) | Luu | United States |
| 73 | Joseph | Fader | United States |
| 74 | Leila | Hatch | United States |
| 75 | Peter | Murphy | United States |
| 76 | Elizabeth | Logerwell | United States |
| 77 | Catherine | Coon | United States |
| 78 | Dennis | Thurston | United States |
| 79 | Gregory | Stitz | United States |
| 80 | Alyson | Azzara | United States |
| 81 | Galia | Kaplan | United States |
| 82 | Brian | Page | United States |
| 83 | Melissa | Perera | United States |
| 84 | Kimberly | Chesteen | United States |
| PERMANENT PARTICIPANTS | | | |
| 85 | Lauren | Divine | United States |
| 86 | Chantae | Kochuten | United States |
| 87 | Nicole | Kanayurak | United States |
| 88 | Frances | Olemaun | United States |
| 89 | Stephanie | Meakin | Canada |
| 90 | Gunn-Britt | Retter | Sápmi |

| | First name | Family name | Country / Organization |
|------------------|------------|---------------|------------------------|
| OBSERVERS | | | |
| 91 | Youna | Lyons | UK |
| 92 | James | Robbins | UK |
| 93 | Sian | Prior | UK |
| 94 | Catarina | Santos | UK |
| 95 | Weishan | Wang | UK |
| 96 | Laura | Michie | United Kingdom |
| 97 | Luca | Fiorani | Italy |
| 98 | Sébastien | Gadal | France |
| 99 | Sarah | Bobbe | United States |
| 100 | Josie | Russell | United Kingdom |
| 101 | Whit | Sheard | United States |
| 102 | Salvatore | Mauro | Italy |
| 103 | Ana | Núñez | Spain |
| 104 | Andres | Ramirez | Spain |
| 105 | Rikke | Nielsen | Belgium |
| 106 | Georg | Hanke | Europe |
| 107 | Janos | Hennicke | Germany |
| 108 | Bryony | Corr | United Kingdom |
| 109 | George | Clarkson | United Kingdom |
| 110 | Hervé | Baudu | France |
| 111 | Heidemarie | Kassens | Germany |
| 112 | Heike | Herata | Germany |
| 113 | Rita | Fabris | Germany |
| 114 | Tiina | Kurvits | Canada |
| 115 | Thomas | Maes | Norway |
| 116 | Tina | Schoolmeester | Norway |
| 117 | Brooks | Kaiser | Denmark |
| 118 | Natsuhiko | Otsuka | Japan |
| 119 | Michael | Kingston | Ireland |
| 120 | Manuel | Dallosso | Spain |
| 121 | Jesus | Gago | Spain |

| | First name | Family name | Country / Organization |
|-----|------------|--------------------|------------------------|
| 122 | Lee | Cooper | United States |
| 123 | Loukas | Kontogiannis | United Kingdom |
| 124 | Sascha | Pristrom | United Kingdom |
| 125 | Minna | Epps | Switzerland |
| 126 | Joao | Sousa | Switzerland |
| 127 | Yuzhou | Wu | Switzerland |
| 128 | Aurélie | SPADONE | Switzerland |
| 129 | Janaka | de Silva | Switzerland |
| 130 | Dorina | Seitaj | Switzerland |
| 131 | Jeehye | Kim | Republic of Korea |
| 132 | Minsu | Kim | Republic of Korea |
| 133 | Seong-Yeob | Jeong | South Korea |
| 134 | Carmel | Cheng | Singapore |
| 135 | Jun Ming | Lim | Singapore |
| 136 | Qui Jun | Fu | Singapore |
| 137 | Maria | Setianegara | Singapore |
| 138 | Jorge | Ureta | Spain |
| 139 | Maude | Jolly | France |
| 140 | Ignacio | Diaz de la Guardia | Spain |
| 141 | Federico | Navarro Cabrera | Spain |
| 142 | Antonino | Scarpato | Italy |
| 143 | Archana | Singh | India |
| 144 | Piotr | Graczyk | Poland |

| | First name | Family name | Country / Organization |
|----------------------------------------------------------------------------|------------|---------------|------------------------|
| 145 | Jim | Gamble | United States |
| 146 | Ben | Enticknap | United States |
| 147 | Teresa | Molina Schmid | Spain |
| 148 | Gema | De Frutos | Spain |
| 149 | Margarita | Mancebo | Spain |
| 150 | Ryuichi | Shibasaki | Japan |
| 151 | Zhibo | Lu | China |
| 152 | Takehiro | Nakamura | Kenya |
| 153 | Natalia | Andreassen | Norway |
| 154 | Wouter Jan | Strietman | The Netherlands |
| 155 | Sarah | Grimes | Switzerland |
| 156 | Zhichao | Wang | Switzerland |
| 157 | Martin | Sommerkorn | Norway |
| 158 | Andrew | Dumbrille | Canada |
| ARCTIC COUNCIL SECRETARIAT-ICELANDIC CHAIRMANSHIP-AC WORKING GROUPS | | | |
| 159 | Jan Rene | Larsen | Denmark |
| 160 | Sólrún | Svandal | Iceland |
| 161 | Magnús | Jóhannesson | Iceland |
| 162 | Mario | Acquarone | Norway |
| INVITED EXPERTS | | | |
| 163 | Sarah | Rosenthal | United States |
| 164 | Jennifer | Brandon | United States |
| 165 | Kerri | Seeger | United States |
| 166 | Kevin | Heaney | United States |

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