



PAME-I 2007

MARCH 6TH - 7TH
COPENHAGEN, DENMARK

WORKING GROUP MEETING REPORT

PAME
Protection of the Arctic Marine Environment



**PROGRAM FOR THE
PROTECTION OF THE ARCTIC MARINE ENVIRONMENT**

PAME

**Working Group Meeting Report
No: I-2007**

**MARCH 6-7, 2007
Copenhagen, Denmark**

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Agenda Item 1: Opening of the Meeting

The Protection of the Arctic Marine Environment (PAME) Working Group met 6-7 March 2007 in Copenhagen, Denmark. The list of participants attending the Meeting is in Appendix I.

The meeting was opened by Mr. Frank Sonne with the Ministry of Environment and Energy. Mr. Chris Cuddy chaired the Meeting and expressed gratitude to Both Mr. Frank Sonne and Tom Christensen with the Danish Polarcentre for arranging and hosting the Meeting.

Agenda Item 2: Introduction and Adoption of the Agenda

A list of documents submitted for consideration at the Meeting is in Appendix II. All power-point presentations will be sent out separately and are available within the password protected area of the PAME homepage.

The Meeting adopted the agenda as presented in Appendix III.

Agenda Item 3: Information from the Chair and Secretariat

The PAME Chair reminded the Meeting of the main priorities and deliverables as identified in the PAME Work Plan 2006-2008 and referred in particular to the joint PAME/SDWG Integrated Ocean Management (IOM) Project led by Norway and its relevance to the PAME/LME Project. This Project is not referred to in the current PAME Work Plan as it was first introduced at the 2006 Ministerial meeting. He further reminded participants of the release of the Oil and Gas Assessment in 2007 and its possible application and inputs to the relevant PAME projects (i.e. AMSA and LME).

The PAME Chair reiterated the priorities of the Norwegian Chairmanship of the Arctic Council, in particular the integrated resource management and climate change themes, and noted its ocean focus and hence its great importance and emphasis to the PAME mandate and work plan. He further pointed out the relevant issues within the 2006 Salekhard SAO report to Ministers and the 2006 Ministerial Declaration and noted that climate change issues were to be addressed within the context of working groups of the Arctic Council.

The PAME Chair informed the Meeting of the Working Group Chair Meeting that was convened in Tromsø, Norway, 23-24 January 2007. The main purpose of this meeting was to discuss how each working group plans to follow up their part of the mandate in the Salekhard documents and to discuss issues of common interest. PAME Secretariat prepared a document comparing the work plan items of other Arctic Council working groups and the Norwegian Programme with the PAME Work Plan in an effort to clarify the needed coordination of various Arctic Council projects.

The PAME Secretary gave a summary of the finances of the PAME International Secretariat including a summary of voluntary contributions and expenditures for the period of January 1, 2006 – December 31, 2006, suggested voluntary contributions and expenditures for 2007, summary of country contributions and financial statements for the years 2001-2007 as well as

itemized printing costs for 2006 (Appendix IV). The PAME Secretary thanked those countries that had provided voluntary contributions towards the operational costs of the PAME Secretariat and encouraged countries to consider the proposed increases in contributions for 2007.

Record of Decisions and Follow-up Actions

The Meeting decided the following:

Coordination with other Working Groups: PAME Chair to inform PAME representatives about any correspondence concerning collaboration with other working groups.

Agenda Item 4: Arctic Marine Shipping Assessment (AMSA)

The leads for the AMSA provided updates on the AMSA process. The AMSA Roundtable meeting was convened separately and parallel to the PAME Meeting at the facilities of the Danish Polarcentre.

Dr. Lawson Brigham/United States provided an overview of the progress and status up to date of the assessment (presentation as a separate file and on the PAME homepage). His presentation revealed new scientific evidence (by CCSM) that the Arctic Ocean will experience ice free summers by the year 2040 (as opposed to the 2050 date suggested in the ACIA).

He informed the meeting of the AMSA agenda including the AMSA Progress Report (October 2006). New science information can be found in the State of the Arctic Report (can be found at: www.arctic.noaa.gov/soa2006/) which provides an update of some of the physical processes discussed in the ACIA Report.

He urged those Arctic states countries that had not yet responded, to nominate points of contact from governmental maritime agencies prior to the next SAO meeting (12-13 April). The AMSA Team realizes these maritime agency points of contact will be reporting to their PAME representative as AMSA moves ahead.

AMSA Chapter Outline and Review

Dr. Brigham summarized the draft AMSA chapter outline, which was drafted in the spirit of past Arctic Council Assessments, as follows:

1. Introduction
2. Geography and History of Arctic Marine Use
3. Current (2004) Levels of Arctic Marine Use
4. Historical & Current Indigenous Arctic Ocean Use
5. Scenarios of Future Arctic Ocean Marine Activity ~ 2020 & 2050

6. Environmental Impacts of Current & Future Marine Activity
7. Social and Economic Impacts of Current & Future Marine Activity
8. Current Arctic Marine Infrastructure & Anticipated Needs
9. Findings of the Assessment

Appendices, Research Agenda

He reiterated the urgent need to nominate lead/co-lead author(s) for each chapter and a group of contributing experts and Permanent Participants. He further urged countries to explore ways to assist and support the assessment, financially and/or in the form of providing experts. He informed the Meeting that lead/co-lead authors had been established for Chapters 2 (Canada/USA), 3 (Canada), 4 (USA/Henry Huntington) and 5 (USA/Lawson Brigham).

AMSA Data Survey for 2004

Mr. Victor Santos-Pedro/Canada gave an update on the AMSA data collection effort (presentation as a separate file and on the PAME homepage) and informed the Meeting that the questionnaires have been completed by most of the participating countries and that some countries have provided useful data outside the questionnaire format. Other countries have been able to provide significant amounts of data beyond the questionnaire format (GIS representations of local geography, fishing vessel fleet transponder records, etc). Good progress continues to be made in this unique project, but more effort is required before analysis of the international picture can begin. The Table below illustrates the progress to date.

Country	Completed Questionnaire	Fishing Information	Other Vessel Types	Other Data Provided?	Notes
Canada	Y	Y	Y	N	
Denmark (Faroe Islands)	Y	Y	Y	N	
Greenland	Y	Y	Y	N	
Iceland	N	Y	Y	Y	Provided location of fishing vessel fleet year-round, also provided spreadsheets detailing incoming passenger and commercial vessel traffic.
Norway	N	--	--	N	
Russia	Y	--	Y	Y	Have provided two written reports detailing a number of vessel activities and icebreaking activities.
Sweden	N	N	Y	Y	Only four vessels reported as having entered arctic waters. Full details on these transits provided via email.
United States	N	Y	N	Y	Provided detailed information on fishing vessels and activities, as well as GIS data for fishing zones. Additional data entry is in progress.

- In general, the data provided to date is of acceptable quality
- More detail may be required with respect to some individual vessel characteristics: There are many entries for vessels with little or no descriptive information which may have to be derived from external sources
- More detail may be required on some vessel routes. Additional information on where a vessel travels between its port of origin and arrival may also have to be derived from external sources
- Excellent data concerning fishing activities has been made available by some participants

He informed the Meeting that enough information had been collected to begin evaluating the application of GIS software to the AMSA project. Many types of information, from fishing vessel distributions to ice coverage to traffic density can be viewed and analysed in a GIS environment. Data collected by the AMSA project will eventually be overlaid with and compared to external sources of environmental data to extend the risk assessment capabilities of the project

Next steps in the data collection effort are as follows:

- Outstanding data needs to be submitted as soon as possible
- Gaps in the final dataset will need to be addressed: Routing information and more complete vessel details will be helpful in performing valid risk assessments
- New information, outstanding information and other useful resources can be submitted to the Data Collection Contractor:

Matthyw Thomas / BMT Fleet Technology
 311 Legget Drive
 Kanata, Ontario, K2K 1Z8
 Canada
 +1 (613) 592-2830 x341
 Email: mthomas@fleetech.com

Dr. Lawson Brigham/United States summarized the status of the data collection efforts for the United States and illustrated how complicated this can be (presentation as a separate file and on the PAME homepage). Using the Bering Sea Fisheries as an example, there are various vessel types and operations that simultaneously take place in that area (approximately 600 US vessels). Adding to the complexity is the international vessel traffic passing through the area on the Northern Pacific Great Circle Routes (6,000 transits a year). All this was shown to reveal the fact that asking for one's data is not a trivial question, but rather a very complex task.

Dr. Brigham emphasized the importance of Member State commitment and timely support with the data collection effort and urged those countries that have not yet submitted marine shipping data to the AMSA team to do so as soon as possible.

The countries informed the Meeting of their data collection efforts as follows: Denmark/Faroe Islands/Greenland noted that their data was still incomplete. Iceland noted some discrepancies in the data they provided and will contact the data collection contractor to ensure proper quality checks. Norway will provide their data by Easter and noted that information on fishing vessels will be entered into the database as routes (not as single ships), tankers and bulk carriers will be entered as single ships. Sweden has the ice breaker Oden in central Arctic Ocean and has provided some data. Russia has provided some data with the financial support of Finland. Canada has provided all their data but need to do a quality check to ensure that all is covered. The United States is well underway in their data collection.

Discussion: Roundtable AMSA aims

The Meeting discussed in general the AMSA aims and below are some of the points mentioned and questioned raised during this discussion:

- ICC expressed concerns over an optimistic timeframe. One of the key areas we need a better understanding of within this assessment is how will it document ice conditions. From an ICC perspective, one of the major concerns of increased shipping is the impact on our social and cultural pursuits. Ships break ice and when ice is broken it becomes fragmented, weaker, and harder to maintain its structure, yet, indigenous culture is very dependant on having stable ice conditions as a means of transportation.
- There is a need to get a better understanding of the Arctic ecosystems as the opening of exploration and resource development will increase ships in the Arctic region. This calls for an assessment of the effects of the cumulative impacts on the LMEs.
- RAIPON noted that Russia has the biggest Arctic area and that there is a lot of indigenous use across the Arctic. They expressed particular interest in Chapter 4 and informed the Meeting that they had developed and articulated a survey and distributed it to their communities. RAIPON further noted interest in convening town-hall meetings in their regions and emphasized their urgent need for support from PAME, the AMSA team, and the Russian government. They reiterated the need for engagement of experts from the Russian Ministry of Transportation (NSR information).
- IPS asked how AMSA is foreseen to link up with other PAME projects and also how possible changing in shipping activities will be taken care of in the assessment e.g. fishing is dependent on stocks available, if stocks move the ships will too.
- The United States responded to the IPS comment above and noted that based on the current information the ice is melting impacting the movement of stocks (fish moving northward) and this will be taken into account within the PAME/LME Project within relevant indicators (fish and fisheries). Further the AMSA scenario work will also take into account changes in ecosystems.
- The United States reminded the Meeting of the broader picture of the study and referred to the AMSP and its 29 strategic actions of which the shipping assessment and the ecosystem approach (LMEs) are identified. There are a number of things on our plate we

ought to be thinking about i.e. climate change could become part of an integrated ocean management regime or just directed at shipping activities.

- The Chairman of the Circumpolar Task Force (CITF) informed the Meeting that CITF was created in 2000 and given the mandate to cover aviation, telecommunications and marine service for all communities of North. He emphasized that the economic aspects of AMSA should serve the people of the North (traffic across Bearing Sea provides great risk to Aleutian communities) and reiterated their continued support and close cooperation with the AMSA team.
- The question of non-Arctic shipping was raised. The response was that the users are mostly non-Arctic i.e. the globe is coming to the Arctic.
- The Chair of PAME raised some questions on the AMSA timeframe and workplan and noted that the responsibility to conduct and complete the assessment on time does rest with all countries. He further emphasized that AMSA would be PAMEs primary deliverable to the next Ministerial meeting and as such, any support (in-kind/financial) must be properly covered. To ensure this, then representatives need to be proactive in pursuing support within their governments. The lead countries have put in several hundred thousand dollars already. He further asked if AMSA was on track and meeting set milestones. He reminded the Meeting that there are only three meetings left before the next Ministerial meeting so the tasks are Minister's completion date – in other words, we have huge milestones in the next 18 months! A successful assessment will require broad support i.e. funding, expertise, talent (in-kind support) and secretariat support.

Discussion: Chapter Lead Authors & Experts

The leads emphasized the need to have Lead Authors assigned for all chapters and a chapter outline presented for each chapter prior to the next PAME meeting. The leads further emphasized that the outreach capabilities within the IPS structure will be used for the purpose of involving the Permanent Participants in the assessment.

Referring to Chapter 5, Dr. Lawson informed the Meeting of an AMSA Scenarios Workshop to be held 3-5 April in San Francisco at the offices of the Global Business Network (GBN ~ a world class strategic planning & thinking firm) with about 25-28 'team' participating. Following the workshop, a team of scenario drafters will write the scenario narratives and pass these back to the participants for their review and comment. The scenarios will be one of the key components of AMSA.

Russia offered to assist in the preparations of Chapters 2, 6 and 8. Iceland offered to assist in the preparations of Chapters 6, 7 and 8. Norway, Denmark and Finland are committed to assist in the preparations of the AMSA Chapters and will give this a further consideration as to availability of expert(s) and associated resources.

Record of Decisions and Follow-up Actions

The Meeting welcomed the progress reported on the shipping assessment and agreed to the following:

- *PAME representatives to provide the AMSA team with a contact person(s) in their respective maritime organizations. This will assist in the AMSA data collection*
- *The AMSA team to present the scenarios to the next PAME meeting.*
- *AMSA team to prepare a status report for the next SAO meeting (April 2007) including information on the main outcomes of the Scenario workshop.*
- *For a future reference PAME and the AMSA team will need to determine how AMSA findings will be translated into PAME recommendations to the Arctic Council.*
- *AMSA team will write to EPPR before its April meeting, indicating what it requires of EPPR.*
- *Those countries that have not yet submitted marine shipping data to the AMSA team are urged to do so as soon as possible.*
- *Norway will provide their marine shipping data to the AMSA team by Easter of 2007.*
- *PAME representatives are urged to verify the quality of their respective marine shipping data that is in the AMSA database.*
- *Russia offered to assist in the preparations of Chapters 2, 6 and 8. Iceland offered to assist in the preparations of Chapters 6, 7 and 8. Norway, Denmark and Finland are committed to assist in the preparations of the AMSA Chapters and will give this a further consideration as to availability of expert(s) and associated resources.*
- *PAME Chair and AMSA lead countries will report to the next SAO meeting on the status of AMSA and request their support, both financially and in the form of providing experts.*

Agenda Item 5: Evaluation and Update of the Arctic Offshore Oil and Gas Guidelines

The United States as the lead country in Evaluation and Update of the Arctic Offshore Oil and Gas Guidelines reminded the Meeting of the current PAME Work Plan which contains provisions for reviewing and updating the Guidelines as follows:

- **Examine the adequacy of Arctic Council guidelines related to the prevention of marine environmental impacts of oil and gas activities in light of the Council's oil and gas assessment and in keeping with the review cycle approved by the Council.**
- **Organize a workshop to assess the implementation of the Arctic Council Oil and Gas Guidelines, and whether there are gaps and a need to update in light of the findings and recommendations of the Arctic Council Marine Strategic Plan (AMSP) and Oil and Gas Assessment (OGA).**

In 1997 the Arctic Council published the Guidelines for Arctic Offshore Oil and Gas Activities (Guidelines) which were updated in 2002, taking account of technological advancements, evolution of regulatory requirements, and the likelihood of increased Arctic

offshore oil and gas activities. During the five years since the last version of the Guidelines, Arctic offshore oil and gas technology, regulatory regimes, environmental conditions, and economic incentives have all evolved substantially.

In addition to the changes in conditions surrounding Arctic offshore oil and gas issues and the recent publication of the Arctic Council's AMSP and the Oil and Gas Assessment (OGA), another incentive to review the 2002 Guidelines is that Norway as the current Arctic Council Chair has made Integrated Resource Management a priority theme of their leadership. Oil and gas activities are a very important component of integrated resource management in many Arctic countries.

Therefore, in order to evaluate the Guidelines and determine whether they need to be revised, the United States proposes that countries submit their views on the adequacy of the guidelines, areas they see in need of discussion, or the general need for updating. Hard copies of the Guidelines will be distributed and electronic copies (in English and Russian) are available on the PAME web site (www.pame.is). Response to the Secretariat from countries is requested by May 31, 2007.

If it is deemed necessary, a follow-up workshop will be held in the United States in late 2007 to begin the process for updating the Guidelines. Depending on the scope of revisions, work may continue via an internet-writing group and side groups during regular PAME meetings with a possible delivery date of mid to late 2008.

Record of Decisions and Follow-up Actions

The Meeting decided the following:

- *Norway, Faroe Islands, Russia and Canada noted the possible need for this update. All countries will provide their response to the Secretariat by May 31, 2007. It was noted that this decision should be considered within the context of available resources and the outcome of the AMAP Oil and Gas Assessment.*
- *The 2002 Offshore Oil and Gas Guidelines can be downloaded from the PAME homepage www.pame.is*

Agenda Item 6: Port Reception Facilities

Norway as the lead country on the assessment of existing measures for port reception facilities for ship-generated waste and cargo residues (PRF-Norway) informed the Meeting of an IMO website with more advanced information on PRFs the this assessment covers. The link to the IMO PRF information is: www.imo.org (select the GISIS tab).

Referring to the PAME Work Plan 2006-2008 Objective I, action 4, the activities of the PRF Project are described as follows over the next two years:

Phase 2 – Identify gaps in existing coverage and possible improvements in availability and incentives for delivery

Phase 3 – Develop recommendations for harmonized guidelines, for consideration by States, based on the gap analysis.

In light of the IMO information and the gaps in information that still exist within Phase 1 of the PRF Project it appears that the proposed gap analyses within Phase 2 of the PRF Project would be redundant. Further, the development of one set of guidelines is maybe not the best way forward. With this in mind one option would be to look into the possibility of proposing an Arctic section to the IMO guidelines.

Record of Decisions and Follow-up Actions

The Meeting decided the following:

- *Based on the lead country (Norway) recommendations the Meeting decided that the continuation of this work as identified in the PAME Work Plan 2006-2008 will not be undertaken during the period of 2006-2008 but may be revisited depending on the outcome of AMSA. The rationale being for this is as follows:*
 - *The IMO port reception facilities database provides information about their locations on their improved website (www.imo.org (GISIS)).*
 - *Due to the different nature of sites it is difficult to generate PRF guidelines for the Arctic that would not be too general.*
- *Arctic countries are encouraged to update their respective PRF information to be provided to the IMO database.*

Agenda Item 7: Regional Programme of Action (RPA: Canada and Iceland)

Canada and Iceland as the lead countries in advancing the implementation of the Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities (RPA) presented a draft Work Plan for this update (Appendix V). The leads summarized the rationale and background for updating the RPA and informed the Meeting of planned consultation and engagement process , which includes a workshop to be held back-to-back with the next PAME meeting.

Some participants noted the importance of finding out early on in the process what the other working groups of the Arctic Council would be willing to commit to in this work. The lead countries where also asked to clarify what they foresee as the final product and also how and if the climate change should be covered.

There was some discussion on what was intended by the proposed work plan item 3d pertaining to: “*Invite country reports on threats and risks to the coastal and marine environment from land-based activities (contaminants and habitat alteration)*”. The leads clarified that the intention was not to ask for comprehensive country reports, but would rather be a stock-taking, and agreed to clarify the expectations for the proposed country reports as well as the proposed reports from other Working Groups. .

Russia informed the Meeting that the Strategic Action Programme (SAP) of the GEF/UNEP Russian NPA-Arctic Project would be ready in spring/summer of 2007 and that it could become one of the topics for discussion at the proposed RPA-related workshop.

Iceland offered to host a RPA-related workshop in parallel with next PAME meeting and will provide a discussion paper for such a workshop. The expected timeline is to have a product ready for PAME approval at the spring 2008 meeting, and then seek Ministerial approval at their Fall 2008/Spring 2009 meeting.

Record of Decisions and Follow-up Actions

The Meeting decided the following:

- *Lead countries will clarify what will be required of other working groups and also the scope of country reports taking account of other existing and relevant information on this subject.*
- *Lead countries should consider how climate change will/will not be addressed in the updated version of the RPA and inform the next PAME meeting.*
- *Lead countries will report to the next PAME meeting on progress and next steps.*
- *Participants will provide the leads with a point of contact by 21 March 2007.*
- *Iceland offered to host the next PAME meeting and to host a one day conference/workshop on the RPA update which will be convened parallel to the next PAME meeting.*

Agenda Item 8: Ecosystem Approach

Agenda Item 8 (1) Large Marine Ecosystems (LME)

Dr. Kenneth Sherman of the National Oceanic and Atmospheric Administration (NOAA) gave a general overview and update of the Large Marine Ecosystem Approach (LME) on behalf of the lead country (presentation as a separate file and on the PAME homepage).

He referred to the ecosystem progress report from 2 March 2007 (Appendix VI) on the implementation of the ecosystem tasks as listed under Objective II of the PAME Work Plan for 2006-2008.

He reminded the Meeting of commitments towards ecosystem approach and referred to the 2004 Arctic Marine Strategic Plan (AMSP) as follows:

- Identifies ecosystem approach as the best for managing the Arctic marine environment to achieve the four goals of the Strategic Plan
- Specifies moving from ecosystem definition to measuring change within them prior to management

- Methodology includes socioeconomic issues and stakeholder participation

He further emphasized that PAME has led the Arctic Council efforts since 2004 to move toward “an integrated ecosystem-based management” approach and has implemented the following steps as identified in the AMSP:

- Working map of 17 Arctic Large Marine Ecosystems agreed upon
- LME experts group established
- PAME Working Plan 2006-2008, Objective II, Action 1.

He informed the Meeting that by the end of March 2007 the review of indicator suites for assessing and monitoring the changing states of LMEs will be initiated through correspondence.

He further noted that discussions have been initiated with the GEF for a project to be conducted jointly by the US and the Russian Federation on the West Bering Sea LME. Based on the initial deliberations NOAA, as a transboundary neighbor, is prepared to work with the appropriately designated Russian partners on a project that would include the planning and operationalization of a West Bering Sea LME project based on the 5 LME assessment and management modules – (i) productivity; (ii) fish and fisheries, marine mammals and marine birds; (iii) pollution and ecosystem health; (iv) socioeconomics; and (v) governance. Discussions with Norwegian, Russian and Canadian members of the PAME-LME Working Group will also continue to consider the Barents Sea LME and the Beaufort Sea LME as possible demonstration projects.

It was mentioned that the funding for international water projects was becoming extremely difficult but the outlook for a potential GEF project for the West Bering Sea LME was promising.

Record of Decisions and Follow-up Actions

The Meeting decided the following:

- *The PAME expert group on LMEs under the lead of United States, with experts from the Arctic Council countries, will meet by the end of March to advance the important work on indicators.*
- *Participants may contact either Dr. Kenneth Sherman or the PAME Secretariat for hard copies of the Arctic LME map.*
- *The PAME expert group on LMEs will take steps to contribute their expertise and products to the Arctic Marine Shipping Assessment and the updating of the RPA projects.*
- *The PAME expert group on LMEs to consider and advise PAME at its next meeting on the possibility of a south-north dialogue on mechanisms for multinational cooperation in the instances of shared marine ecosystems.*

The Update on the Russian Arctic LMEs

Professor Gennady G. Matishov, Director of the Murmansk Marine Biological Institute of the Russian Academy of Sciences (MMBI RAS) and Chairperson of the Southern Scientific Centre of the Russian Academy of Sciences (SSC RAS) gave an update of the Russian Arctic LMEs (presentation as a separate file and available on the PAME homepage).

He noted that the marine ecosystem research was a complex task and showed a schematic of the way in which the MMBI addresses the logistics of such research. He gave a graphical illustration of the MMBI KSC RAS and SSC RAS Expeditions, 2000 – 2006 and MMBI expedition activities in the Kara and Laptev Seas 1992 – 2006. He further informed the Meeting of extensive MMBI oceanographic, hydrobiological and geological expeditionary researches in the area of the Svalbard (Spitzbergen) Archipelago in 1997-2006.

He noted that the issue of climate change was the number key impact factor on the ecosystems with illustrations on a number of monitoring results. He detailed the application of the LME five-module indicator approach around the Kola Peninsula, Barents and Kara Seas. He then noted that Arctic marine shipping was an impact factor to the LMEs with increased shipping due to increased oil and gas activities.

Agenda Item 8 (2): Integrated Oceans Management (IOM) Project (Norway)

Norway is the lead country on the Implementation of Integrated, Ecosystem-based oceans Management in the Arctic Project (IOM Project). This is a project will be a joint PAME/SDWG effort. Norway referred to the IOM Project proposal (version 2 March 2007) as developed following the IOM workshop held in Tromsø 20-21 February 2007.

The IOM Project is based on one of the priorities of the Norwegian chairmanship from 2006 to spring 2009 i.e. integrated oceans management, and the mandate given on this issue at the 2006 Salekhard Ministerial meeting.

The objective of this Project is to examine the concepts and practices the Arctic countries have developed for implementation of integrated oceans management and the ecosystem-based approach. The IOM Project will be executed as a comparative study of how countries implement IOM and an analysis of lessons learnt and how they can be put into actual use in the Arctic.

The proposed outputs of the IOM Project are as follows:

- A comparative study on implementation of IOM in Arctic countries
- A set of best practices for implementation of IOM in the Arctic
- Course development for IOM
- An international workshop where lessons will be shared
- A final report of the project.

The IOM project will build upon existing Arctic Council work, adopted strategies and programs, including the Arctic Large Marine Ecosystem (LME) work, and is not meant to be another exercise in ecosystems analysis.

The IOM Project will be funded by Norway and will include work of the project coordinator, an initial workshop, the drafting of chapters, a small conference and printing of report but each participating country will cover their own participation in writing teams. The estimated budget is about 200 000 Euro/250 000 USD.

Some countries stressed that the IOM Project proposal needs to be transparent to avoid overlaps and duplication of efforts with the PAME/LME work and that PAME and SDWG need to develop a joint workplan with milestones. Norway agreed to provide a proposed management structure in writing for PAME's endorsement.

ICC supports this Project in principle but noted the need to include Permanent Participants and their contributions on indigenous perspectives and also how they will be funded, referring to a previous SAOs decision on the inclusion and funding of Permanent Participants in new projects. The Saami Council echoed previous comment and referred to a letter dated 1 March 2007 which addresses their comments on the IOM Project proposal

Record of Decisions and Follow-up Actions

The Meeting decided the following:

- *PAME approval of the IOM draft project proposal (2 March 2007 version) is subject to the changes as discussed and agreed to at the Meeting including the following:*
 - *Country chapters to be the responsibility of respective countries.*
 - *Chapter 1 "Introduction" in the country chapter outline to be modified to address lessons learned.*
 - *Annex to be modified and moved into the body of the proposal under section "Background and rationale".*
 - *Addition of a timetable.*
- *Norway agreed to add the following to the draft project proposal, possibly under a section on Execution and Timeline:*
 - *The project will be managed jointly by PAME and SDWG. Norway will serve as the project lead country. In this capacity, Norway will provide overall project leadership and coordination of a contact group of individuals identified by countries.*
 - *PAME and SDWG will review and approve the project documents including the project proposal, a process timetable, report outline, draft reports and the final report.*

- *Norway to revise the IOM draft project proposal accordingly and send to the PAME representatives within the next two weeks (21 March 2007).*
- *That outputs of this project will be Arctic Council products and will request appropriate SAO/Ministerial approval.*

Integrated Ecosystem-based Oceans Management in the Norwegian Part of the Barents Sea

Cecilie Quillfeldt from the Norwegian Polar Institute presented the Integrated Management Plan for the Norwegian Part of the Barents Sea which was endorsed by Parliament 31 March 2006 (presentation as a separate file and available on the PAME homepage).

The key aspects are: acute pollution, biological diversity, pollution prevention, and vulnerable and valuable areas and the plan looks at impacts from petroleum activities, fisheries, long-range transport of pollutant and introduction of alien species to the year 2020.

The plan will go through continuous updating on knowledge and scientific data and reporting on status and condition will take place every 5 years. The entire management plan will be updated in 2020.

Agenda Item 9: Update status of the GEF/Russian NPA-Arctic

Russia referred to ACOPS to provide an update on the GEF/Russian NPA-Arctic Project as both the representative from the Russian Ministry of Economic Development of Trade and the Project Manager where absent.

Mr. Vitaly Lystsov of the Advisory Committee on Protection of the Sea (ACOPS) provided an updated of ACOPS progress on the GEF/UNEP Russian NPA-Arctic Project in their capacity as the “Partner Agency” in the Project. He informed the Meeting that all of the main activities of the Project Strategic Action Programme (SAP) task team and working groups were formed and corresponding contracts concluded. Some documents are presented for review and assessment. However the Project is behind schedule. For the period from 1 July, 2005 up to date, only about one tenth of the GEF fund allocation has been spent. The end of Phase 1 is 1 July, 2007.

In December 2006, the GEF Council removed the Project Phase 2 from its projects pipeline as the Project had been there for too long without disbursement. In the wake of the Phase 2 of the Project, the Executive Agency and UNEP are currently undertaking a major project review and putting together a revised work plan for Phase 1, including an extension until the beginning of the year 2009. This will be the topic for the Steering Committee meeting which is scheduled for April 2007 (exact dates to be confirmed).

ACOPS continues to provide assistance to the Project activities led by the GEF Project Office. During the last 12 months ACOPS has selected, issued and approved 18 individual contracts to the GEF Project Office.

RAIPON informed the Meeting of their long-standing partnership with this Project and their satisfaction with how it was progressing but noted that more cooperation with AMSA and the LME work within PAME would be of benefit.

The United States asked that this Project consider the application of LMEs and further noted the need for closer cooperation with AMSA. Russia replied that their application of Transboundary Diagnostic Analysis (TDA) and Strategic Action Plan (SAP) within the Project would be based on an ecosystem approach.

Some countries raised the question of whether PAME should continue reporting on this Project to SAOs and Ministers as it has now official started and it is Russia's responsibility to report on progress. Russia expressed their wish that this Project would continue to be on PAME's agenda and included in the 2006-2006 PAME Work Plan.

The Meeting welcomed the update on the GEF/UNEP Russian NPA-Arctic Project.

The next PAME Working Group meeting

Iceland informed the Meeting that they will host the next PAME meeting during the last week of September 2007.

APPENDIX I – LIST OF PARTICIPANTS

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APPENDIX II – LIST OF DOCUMENTS

Agenda Item 2 - Introduction and Adoption of the Agenda

- Draft agenda with a timeline and annotation

Agenda Item 3 - Information from the Chair and the Secretariat

- SAO Report to Ministers at the 5th Arctic Council Ministerial Meeting, October 26, 2006
- Salekhard Declaration (October 2006)
- Comparison of work plans and the Norwegian Programme

Agenda Item 4 - Arctic Marine Shipping Assessment (AMSA)

- AMSA Critical Needs for Chapter Lead Authors and Contributing Experts

Agenda Item 5 - Evaluation and Update of the Arctic Offshore Oil and Gas Guidelines (USA)

- One-pager prepared and submitted by the USA on the Evaluation and Update of the Arctic Offshore Oil and Gas Guidelines

Agenda Item 7 - Regional Programme of Action (RPA: Canada and Iceland)

- RPA Update: ToR workplan - draft version as of 26th of February

Agenda Item 8 (1) - Large Marine Ecosystems

- Progress Report on the implementation of the Ecosystem tasks – 2. March version

Agenda Item 8 (2) - Proposed Integrated Oceans Management Project

- 2-page summary on a proposed project on Integrated, Ecosystem-based Oceans Management (Norway, version Dec. 20, 2006)

General Information

- List of Participants
- Logistics (meeting location and hotels)
- PAME Meeting Report II-2006 (Murmansk)
- List of PAME deliverables to the Arctic Council Ministerial Meeting Oct 2006

APPENDIX III – AGENDA

TUESDAY, March 6

09:00-12:00

- Item 1:** Opening of the Meeting (TBD)
- Item 2:** Introduction and Adoption of the Agenda (PAME Chair)
- Item 3:** Information from the Chair and the Secretariat
- The SAO/Ministerial meeting in October 2006
 - Outcome/directions from the SAO Chair and WG Chairs meeting of Jan 23-24, 2007
 - Finances of the PAME Secretariat

10:30-15:00

- Item 4:** Arctic Marine Shipping Assessment (Canada/Finland/USA)
- Progress Report
 - Tour de table and next steps

15:30-16:30

- Item 5:** Evaluation and Update of the Arctic Offshore Oil and Gas Guidelines (USA)

16:30-17:00

- Item 6:** Port Reception Facilities (Norway)
- Update by the lead country
 - Discussion and an agreement on next steps

WEDNESDAY, March 7

INFORMATION ITEM:

08:30-12:00 – AMSA Roundtable Meeting by invitation only will run parallel to the PAME Meeting. Participants at the AMSA Roundtable Meeting are different then those attending the PAME Meeting.

09:00-10:00

Item 7: Regional Programme of Action (RPA: Canada and Iceland)

- Progress and terms of reference/work plan
- Tour de table and agreement on next steps

10:30-12:00

Item 8: (1) Ecosystem Approach (USA)

- Progress Report on the Ecosystem tasks
- Update on the Russian Arctic LMEs (Prof. Matishov)
- Cooperation with other working groups
- Tour de table and agreement on next steps

(2) Proposed Integrated Oceans Management Project (Norway)

- Proposed joint PAME/SDWG Project: update from the Integrated Ocean Management informal expert workshop in Tromsø, Norway 20-21 February 2007

13:00-16:00

Item 9: Update status of the GEF/Russian NPA-Arctic (Russia)

Item 10: Norwegian chairmanship and cooperation with Arctic Council WGs and activities: AMAP, ACAP, CAFF, EPPR and SDWG.

Item 11: Summary of Meeting Decisions and Follow up Actions (Chair & Secretariat)

- The PAME Progress Report to the SAO meeting in April 2007

Item 12: Any other business and closing of the Meeting

Draft Annotation to the Agenda

PAME-I – 2007

This is the first PAME meeting following the 5th Arctic Council Ministerial meeting 24-26 October 2006 in Salekhard, Russia. The Salekhard Declaration and associated SAO Report highlight the importance of the PAME program of work under the Norwegian Arctic Council Chairmanship.

The primary focus of this meeting is to review progress on ongoing projects and agree on terms of reference/work plans. We will also need to consider any additional activities or directions coming out of the Arctic Council Salekhard Meeting.

As set out in the Work Plan, the four main PAME 2006-2008 priorities and deliverables are:

- 1) the Arctic Marine Shipping Assessment (AMSA),
- 2) the Regional Program of Action,
- 3) the Guidelines for Port Reception Facilities, and
- 4) the Ecosystem Approach (Large Marine Ecosystems).

Lead(s) on respective activities are urged to submit their papers/status the soonest to allow for sufficient time for participants to review in advance of the meeting.

REMINDER FROM THE PAME OPERATING GUIDELINES: “Every effort shall be made to submit papers to the Secretariat for circulation at least 30 days prior to the meeting at which they are to be considered.”

APPENDIX IV - PAME FINANCE REPORT

March 1, 2007

To: PAME Country Representatives

Subject: Summary of Finances of the PAME International Secretariat 2006 and 2007

Following financial information is attached:

- **Table 1:** *Contributions and Expenditures for 2006 (Jan-Dec)*
- **Table 2:** *Itemized Printing Costs for 2006*
- **Table 3:** *Suggested Contributions and Expenditures for 2007 (Jan-Dec)*
- **Table 4:** *Summary of country contributions and financial statements for the years 2001-2007*

The annual financial statements are presented in ISK as all operational expenditures are in this currency and thus provide the more accurate status of the finances. Table 1 shows the actual expenditures for the fiscal year 2006. Iceland paid additional 950.000 ISK for the year 2006 to cover some of the deficiencies and delays in receiving contributions for the year 2006. The actual expenditures for 2006 are higher than expected mainly due to additional printing costs for the Ministerial- and AMSA documents (refer to Table 2 for itemization of the printing costs) and additional traveling costs/meetings due to higher than expected traveling costs to Russia.

Countries are reminded of the discussion on finances of the Secretariats of the Arctic Council working groups at the SAO meeting in Khanty-Mansyisk October 12-14, 2005. At this meeting it was noted that CAFF and PAME Secretariats had not received sufficient contributions for its operations and the SAOs appealed to those countries which have been financing CAFF and PAME Secretariats to raise their contribution by 15-20% and to those countries which have not to consider making a contribution.

Iceland has increased their contributions for 2007 to 9.800.000 ISK and other countries are asked to do the same with reference to the agreement as it pertains to the establishment of the PAME International Secretariat where Iceland agreed to assume half the cost of its operations (refer to the 1998 Iqaluit Ministerial Declaration and SAO report, the PAME Working Group Meeting Report, February 15-18, 1999).

I greatly appreciate previous funding contributions by member countries and sincerely hope for a positive and quick response to the proposed increase in voluntary contributions to 1.960.000 ISK for 2007.

Kind Regards



Soffia Gudmundsdottir

PAME Executive Secretary

Table 1: Contributions and Expenditures for 2006 (Jan-Dec)

Contributions and Expenditures for 2006		
Suggested and received contributions:	YEAR 2006	
	Suggested ISK	Received ISK
1) Canada	1.550.000 kr.	2.300.000 kr.
Denmark <i>(1.460.000 ISK received in '05 for '06)</i>	1.550.000 kr.	1.460.000 kr.
Finland	1.550.000 kr.	1.184.716 kr.
Iceland	8.500.000 kr.	9.450.000 kr.
Norway	--	--
Russia	--	--
Sweden	1.550.000 kr.	1.550.000 kr.
United States <i>(1.280.460 ISK received in '05 for '06)</i>	1.550.000 kr.	1.280.458 kr.
Total received:	16.250.000 kr.	17.225.174 kr.
Carryforward from the year before:	-106.682 kr.	-106.682 kr.
Total:	16.143.318 kr.	17.118.492 kr.
Closing balance (carryforward to the next year):	168.318 kr.	-1.697.779 kr.
Operational expenditures:	YEAR 2006	
TYPE OF EXPENDITURE:	Suggested ISK	Actual ISK
Staff	8.000.000 kr.	9.285.001 kr.
Operating costs - office	5.425.000 kr.	5.746.181 kr.
Operating costs - travel	2.550.000 kr.	3.785.089 kr.
TOTAL	15.975.000 kr.	18.816.271 kr.
STAFF:		
Salary, benefits,taxes,insurance,pension (1 person full time and 1 person 40%)	8.000.000 kr.	9.285.001 kr.
Subtotal	8.000.000 kr.	9.285.001 kr.
OFFICE:		
Service (telephone, fax, e-mail, internet, homepage)	1.400.000 kr.	1.099.986 kr.
Office supplies	250.000 kr.	249.080 kr.
Housing (rent, heat, electricity, cleaning)	1.900.000 kr.	1.950.764 kr.
Shipping/Postage	300.000 kr.	286.877 kr.
Equipments	100.000 kr.	0 kr.
Hospitality	30.000 kr.	14.080 kr.
Update the homepage	700.000 kr.	400.000 kr.
Bank Service	45.000 kr.	26.035 kr.
2) Printing	700.000 kr.	1.719.359 kr.
AMSA related documents:		1.008.760
Other Ministerial related documents:		494.599
Other:		216.000
3) Auditing	in-kind	in-kind
Subtotal	5.425.000 kr.	5.746.181 kr.
TRAVEL:		
Domestic - airline tickets	650.000 kr.	1.024.919 kr.
4) International - airline tickets, hotel, per diem	1.900.000 kr.	2.760.170 kr.
Subtotal	2.550.000 kr.	3.785.089 kr.
NOTES:		
1) Canada contribution of 30.000 CDN with additional 10.000 CDN (2006 only) for RPA-related activities		
2) Details on the printing costs are provided separately		
3) Monthly and annual auditing provided by the Icelandic Government		
4) Total of 8 meetings attended in 2006: Arctic Council Focal Point (Feb, Kobenhagen); PAME I (1-3 Mar, Oslo); SAO meeting (April, Syktyvkar); EU Marine Strategy (May, Brussel); ICE-Tech Conference (AMSA related/June, Banff); PAME II (29-30 Aug, Murmansk); Arctic Council Focal Point (Sep, Kobenhagen); SAO/Ministerial (Oct, Salekhard).		

Table 2: Itemized Printing Costs for 2006

DOCUMENTS	COSTS
PAME Work Plan 2006-2008 and PAME Brochure	140.362 ISK
PAME Progress Report to Ministers and SAOs 2006	39.150 ISK
Technical Report - Phase I of The assessment of existing measures for port reception facilities for ship-generated waste and cargo residues.	87.700 ISK
A review of the Need for Amendments to the Arctic Council Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities (RPA), Prepared by Canada for PAME	27.750 ISK
Communications Plan for the Arctic Marine Strategic Plan.	42.330 ISK
Layout and design of the above mentioned documents	157.307 ISK
Subtotal:	494.599 ISK
AMSA Progress Report in English and Russian AMSA Brochures in 4 languages AMSA Posters ➤ Layout, design and printing	1.008.760 ISK
Printing of additional copies of various PAME documents	216.000 ISK
TOTAL:	1.719.359 ISK

Table 3: Suggested Contributions and Expenditures for 2007 (Jan-Dec)

Suggested contributions for 2007		
	Suggested revenues from fixed contributions:	ISK
	Canada	1.960.000 kr.
	Denmark	1.960.000 kr.
	Finland	1.960.000 kr.
	Iceland	9.800.000 kr.
	Norway	--
	Russia	--
	Sweden	1.960.000 kr.
	United States (<i>1.402.429 ISK received in '06 for '07</i>)	1.960.000 kr.
	Subtotal:	19.600.000 kr.
	Carryforward from year 2006:	-1.697.776 kr.
	TOTAL Expected revenues	17.902.224 kr.
	Closing balance (carryforward to the next year):	327.224 kr.
Projected Operational Expenditures for 2007		ISK
TYPE OF EXPENDITURE:		
	Staff	9.300.000 kr.
	Operating costs - office	4.975.000 kr.
	Operating costs - travel	3.300.000 kr.
	TOTAL	17.575.000 kr.
	STAFF:	
	Salary, benefits,taxes,insurance,pension (1 person full time and 1 person 40%)	9.300.000 kr.
	Subtotal	9.300.000 kr.
	OFFICE:	
	Service (telephone, fax, e-mail, internet, homepage)	1.100.000 kr.
	Office supplies	300.000 kr.
	Housing (rent, heat, electricity, cleaning)	2.100.000 kr.
	Shipping/Postage	200.000 kr.
	Equipments	300.000 kr.
	Hospitality	30.000 kr.
	Update the homepage	400.000 kr.
	Bank Service	45.000 kr.
	Printing	500.000 kr.
1)	Auditing	in-kind
	Subtotal	4.975.000 kr.
	TRAVEL:	
	Domestic - airline tickets	1.000.000 kr.
2)	International - airline tickets, hotel, per diem	2.300.000 kr.
	Subtotal	3.300.000 kr.
NOTES:		
1) Monthly and annual auditing provided by the Icelandic Government		
2) PAME meeting x 2, SAO meeting x 2, AMSA-related meetings x 3, other meetings x 3 (each on average at 230.000 IKR)		

Table 2: Summary of country contributions and financial statements for the years 1999-2006

Country Contributions for the years 2001 - 2007							
Country	2001	2002	2003	2004	2005	2006	Suggested 2007
Canada	\$12.800	\$13.600	\$13.523	\$16.550	2.134.000 kr. ³⁾	2.300.000 kr. ⁴⁾	1.960.000 kr.
Denmark	\$11.000	\$11.000	\$11.000	\$15.200	1.460.000 kr.	1.460.000 kr.	1.960.000 kr.
Finland	\$12.600	\$6.900	\$7.299	\$8.000	1.063.212 kr.	1.184.716 kr.	1.960.000 kr.
Iceland	\$59.866	\$55.341	\$81.926	\$108.000	8.300.000 kr.	9.450.000 kr.	9.800.000 kr.
Norway	--	--	--	--	--	--	--
Russia	--	--	--	--	--	--	--
Sweden	\$17.600	\$17.600	\$17.600	\$17.600	1.460.000 kr.	1.550.000 kr.	1.960.000 kr.
United States	\$30.000	in-kind	\$20.000	\$20.000	1.280.458 kr.	1.280.458 kr.	1.960.000 kr.
Total Contributions/year:	\$143.866	\$104.441	\$151.348	\$185.350	15.697.670 kr.	17.225.174 kr.	19.600.000 kr.
Financial Statment for the years 1999-2006 (in ISK)							
	2001	2002	2003	2004	2005	2006	Suggested 2007
REVENUE							
Contributions ²⁾	11.605.750 kr.	10.771.473 kr.	12.669.258 kr.	13.666.111 kr.	15.697.670 kr.	17.225.174 kr.	19.600.000 kr.
Misc revenue	85.135 kr.	146.952 kr.	200.000 kr.	50.000 kr.	--	--	--
Sub-total Revenue/year:	11.690.885 kr.	10.918.425 kr.	12.869.258 kr.	13.716.111 kr.	15.697.670 kr.	17.225.174 kr.	19.600.000 kr.
Carryforward from previous year:	6.377.357 kr.	2.080.905 kr.	-1.285.768 kr.	-1.023.903 kr.	-782.251 kr.	-106.682 kr.	-1.697.776 kr.
TOTAL	18.068.242 kr.	12.999.330 kr.	11.583.490 kr.	12.692.208 kr.	14.915.419 kr.	17.118.492 kr.	17.902.224 kr.
Staff	7.724.721 kr.	7.696.689 kr.	7.379.010 kr.	6.918.345 kr.	7.533.026 kr.	9.285.001 kr.	9.300.000 kr.
Office	3.773.092 kr.	3.150.843 kr.	3.498.688 kr.	5.010.086 kr. ⁵⁾	4.403.666 kr.	5.746.178 kr.	4.975.000 kr.
Travel/Meetings	4.489.524 kr.	3.437.566 kr.	1.729.695 kr.	1.546.028 kr.	3.085.409 kr.	3.785.089 kr.	3.300.000 kr.
Total Expenditure/year:	15.987.337 kr.	14.285.098 kr.	12.607.393 kr.	13.474.459 kr.	15.022.101 kr.	18.816.268 kr.	17.575.000 kr.
Balance per year:	-4.296.452 kr.	-3.366.673 kr.	261.865 kr.	241.652 kr.	675.569 kr.	-1.591.094 kr.	2.025.000 kr.
Closing balance/year:	2.080.905 kr.	-1.285.768 kr.	-1.023.903 kr.	-782.251 kr.	-106.682 kr.	-1.697.776 kr.	327.224 kr.
Exchange Rate ISK/USD:							
Daily min.	84 kr.	81 kr.	70 kr.	61 kr.			
Daily max.	110 kr.	103 kr.	82 kr.	75 kr.			
Annual Avg.	98 kr.	92 kr.	77 kr.	70 kr.	63 kr.	70 kr.	
<i>Notes:</i> 1) Icelandic contribution towards the start-up and operation of the PAME Secretariat in 1999 2) Contributions based on the ISK/USD exchange rate at time of deposit 3) Canada increased their annual contribution from 20,000 CDN to 30,000 CDN and an addition one time funding of CDN \$10,000 (2005 only) for activities associated with the follow up of the implementation of the AMSP 4) Canada contribution is 30,000 CDN with additional 10,000 CDN (2006 only) for RPA-related activities 5) Includes 800.000 kr for printing of documents for the Ministerial (e.g. AMSP, AMSP and PAME 2004-2006 brochures)							

APPENDIX V

Updating the Arctic Council Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities (RPA)

PROPOSED WORKPAN (TERMS OF REFERENCE)

1) OBJECTIVE

The objective of this review is to update the existing RPA to: address possible additional priority source categories, taking stock of international developments since the inception of the RPA, including Arctic Council activities and reports.

2) RATIONALE

The RPA was developed from 1996-98 and adopted by Arctic Ministers in the Fall 1998. Since then, considerable new information has become available from Arctic Council Working Groups as well as other groups. The RPA was intended to be a dynamic programme, with references to the initial phase and future work.

In the Spring 2006, PAME decided that the RPA should be updated, broadened and possibly restructured to allow for more rapid response to developments and opportunities because:

- The RPA is out-of-date and updating it would provide a more current account of circumpolar activities and priority RPA issues.
- Canada, Finland, Iceland and Russia have found the RPA approach helpful in developing their National Programmes of Action (NPAs).
- Russia used the RPA to support an application for funding of the GEF/UNEP Russian NPA-Arctic Project.

In the Fall 2006, SAOs and Ministers recognized the importance of the National Programmes of Actions as components of the RPA implementation phase, and noted the progress in the implementation of the Russian NPA-Arctic. They requested PAME, through Canada and Iceland as lead countries, to review, update and expand the RPA where necessary, and possibly restructure to allow for more rapid response to developments and opportunities.

At the global level, the UNEP Second Intergovernmental Review (IGR-2) Meeting of the Global Programme of Action (October 2006) witnessed a renewed commitment by over 104 countries and the European Commission to address land-based sources of marine pollution at the national, regional and global levels.

3) STATEMENT OF WORK AND SCHEDULE

Part I – Planning and Research

- a. Prepare discussion paper: *Review of the Need for Amendments to the Arctic Council Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities (RPA)* -- **ALREADY COMPLETED** by Canada (2006).
- b. Conduct a stocktaking of relevant work plan activities from Arctic Council Working Groups to build on analysis provided in the 2006 Discussion paper.

- c. Invite Working Groups and other relevant organizations (permanent participants, ENGO's) to contribute background papers identifying linkages between their work and the RPA, for presentation at the Fall 2007 RPA Workshop and 2008 Ministerial Meeting. For example:
 - ACAP on pollution “hotspots”
 - AMAP on pollution from rivers
 - CAFF on threats to habitat
 - etc.
- d. Invite country reports on threats and risks to the coastal and marine environment from land-based activities (contaminants and habitat alteration).

PART II – Consultation and Engagement

- e. Host a Workshop with Arctic Council Working Groups, Permanent Participants and other relevant groups to discuss expanded RPA areas and assessment of priority issues including habitat, contaminants and other areas including climate change (Fall 2007 to coincide with PAME Meeting):
 - Facilitated session with Working Groups, Permanent Participants, other invited stakeholders / experts
 - Current threats and risks including adaptation to climate change, economic development impacts, pollution threats from Russia, etc.
 - Role of the RPA
 - Linkages to WG activities (ACAP, AMAP, CAFF, EPPR, SDWG)
 - Brainstorming / discussion / recommendations for an updated RPA
 - Reference Documents include:
 - 2006 Canadian Discussion Paper
 - Background papers from Working Groups, Permanent Participants, ENGO's, country reports, and others
 - GPA IGR-2 Meeting Outcomes
 - Other?
- f. Distribute a DRAFT updated RPA for review by PAME Members (January / February 2008)
- g. Discussion of DRAFT updated RPA at PAME Meeting (March 2008)
- h. Revise RPA based on comments (March / April 2008)
- i. Distribute to WGs, PPs and others for comment (April / May 2008)
- j. Finalize updated RPA based on comments from WG, PP, and others (June / July 2008)

PART III – Approval by SAO / Ministers

- k. Forward Updated RPA and associated reference documents to SAO and Ministers for approval (Fall 2008)

4) PROJECT BUDGET

Part I – Planning and Research (15K CDN completed)

- Discussion paper prepared by Canada (15K CDN) – COMPLETED
- Conduct stocktaking of relevant WG activities – in-kind (Secretariat and Co-leads)
- Background papers from Working Groups, Permanent Participants, ENGOS, and others (in-kind / costs TBC)

PART II – Consultation and Engagement (60K CDN)

- Host workshop (1-2 days) – to coincide with Fall PAME meeting:
 - o Facilities / hospitality - 10K
 - o Facilitator for workshop - 10K
 - o Support for Permanent Participants involvement - 20K
 - o Expanded discussion paper for workshop – (10K Contract) + Co-leads
 - o Follow-up drafting of revised document for review by PAME and WGs PPs – 10K Contract + Co-leads

PART III – Approval by SAO / Ministers (5-10K CDN)

- Preparation of document for SAO / Ministers (Production + Printing 5-10K) (Secretariat / Co-Leads)

APPENDIX VI

PAME ECOSYSTEM PROGRESS REPORT – 2 March 2007

1) Indicator Suites

We will be initiating by the end of March 2007, by correspondence, the review of indicator suites for assessing and monitoring the changing states of LMEs based on the productivity; fish, fisheries; marine mammals, and marine birds; pollution and ecosystem health; socioeconomics; and governance. When the documents for review are completed, they will be forwarded to Working Group representatives from Denmark (O. Vestergaard); Sweden (J. Thulin); Iceland (O. Astthorsson); Norway (H.R. Skjoldal); Russia (G. Matishov); Canada (R. Siron); and Greenland (E. Sorensen).

2) AAAS Volume on Arctic LMEs

As planned, a Symposium on Arctic Ecosystems: Risk and Remediation was held during the February 2006 annual meeting of the American Association for the Advancement of Science annual meeting in St. Louis. Among the topics discussed were: changes in Ice Cover of Arctic Marine Ecosystems; An Ecosystem-Based Approach to Management of Arctic LMEs; an Assessment of Arctic LMEs; and Ecological Conditions of Arctic LMEs. Arrangements are being made with Elsevier Science to publish selected reports from the Symposium and other recently completed Arctic LME case studies. The volume will be co-edited by me and Hein Rune Skjoldal.

The focus of the AAAS Arctic Symposium presentations was the magnitude, extent, and consequences of ice reduction on Arctic LMEs and Arctic indigenous people: *AAAS Symposium Synopsis*: Major effects of the present global warming trend on the people and ecosystem resources of the Arctic have been well-documented in scientific reports and the media. Calls for an ecosystem approach to resource assessment and management are seldom accompanied by a practical ecosystem-based strategy, supported by a payment plan. There is a global movement that is making the ecosystem-based approach to the management of the goods and services of the Arctic region practical. It is known as the Large Marine Ecosystem (LME) approach, and it is being endorsed and supported by governments nationally and internationally, as well as by a broad constituency in the scientific community. The forecasts for continued reduction in the ice cover and the probable effects on the indigenous people and on the important goods and services provided by the 17 Arctic LMEs, have energized the donor community, the UN system, and the Global Environment Facility (GEF), to move forward with support of an ecosystem-based LME assessment and management approach that provides financial support to “country-driven” projects. LME projects introduce a multisectoral five-module strategy through the application of a transboundary diagnostic analysis to identify key issues, and a strategic action plan to remediate environmental risks. These processes lead to the integration of science into management in a practical way. The GEF supported LME projects are supported with \$650 million in start-up funding with over 100 countries participating. Additional support from the GEF is earmarked for recipient countries bordering on the 17 Arctic LMEs.

(3) Arctic LME Session at Second Global LME Conference

Principal scientists have been invited to the 2nd Global Conference on LMEs to be held in Qindao, China 11 - 13 September 2007 to present results of assessments of the changing conditions of the Barents Sea LME (K. Drinkwater), the Norwegian Sea LME (H.R. Skjoldal); the East Bering Sea LME (P. Livingstone) and the West Bering Sea LME (G. Matishov).

(4) Pilot Assessments of LMEs

We have entered into discussions with the GEF for a project to be conducted jointly by the US and the Russian Federation on the West Bering Sea LME. Based on the initial deliberations NOAA, as a transboundary neighbor, is prepared to work with the appropriately designated Russian partners on a project that would include the planning and operationalization of a West Bering Sea LME project based on the 5 LME assessment and management modules – (i) productivity; (ii) fish and fisheries, marine mammals and marine birds; (iii) pollution and ecosystem health; (iv) socioeconomics; and (v) governance. We will also continue discussions with Norwegian, Russian and Canadian members of the PAME-LME Working Group to consider the Barents Sea LME and the Beaufort Sea LME as possible demonstration projects.

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