



PAME-I 1999

**FEBRUARY 15th-18th
OTTAWA- CANADA**

WORKING GROUP MEETING REPORT

PAME
Protection of the Arctic Marine Environment

PAME Working Group Meeting Report February 15-18, 1999

Introduction

The PAME Working Group met in Ottawa, Canada, February 15-18, 1999. Participants attending the meeting are shown in Appendix I. The meeting was chaired by John Karau (Canada) and documents submitted for consideration at the meeting are shown in Appendix II.

A letter of regret for not being able to attend the meeting was received from Finland. Sweden did not attend the meeting and the Nordic Countries were requested to discuss with Sweden the benefit of participating in PAME. Gunnar Futsaeter from Norway was unable to attend the meeting due to the death of his father-in-law and through the Chairman the meeting will express its condolences.

Agenda and Report from Arctic Council Meeting

The meeting adopted the agenda as shown in Appendix III.

The Chairman noted that the key objective for the meeting was to prepare the PAME Workplans for the period 1999 to 2002. In this connection, the meeting took note of the Iqaluit Declaration and in particular the request to PAME to undertake the following work:

- coordinate the implementation and further development of the Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities (RPA);
- continue to promote application of the Arctic Offshore Oil and Gas Guidelines and review their implementation in the year 2000;
- continue to review the adequacy of existing international agreements and arrangements and update 1996 PAME analysis of agreements and arrangements in the next 2-4 years; and
- continue to consider additional information on current and potential shipping activities to assist in determining what, if any, additional arctic shipping measures are required.

Attention was also drawn to the PAME mandate which is “to address policy and non-emergency response measures related to the protection of the marine environment from land and sea-based activities”.

Tom Laughlin from the USA provided an overview report on the recent outcome of the London Oceans Workshop and UNEP / Governing Council (UNEP/GC).

He reported that the Second London Oceans Workshop held 10-12 December, 1998 identified over-fishing and degradation of the marine environment from land-based activities as the two major ocean problems. Other problems arise from shipping, off-shore minerals exploitation, coastal development, dumping of waste and climate change. Solutions to these problems were identified as including integrated coastal zone management, implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), partnership conferences and implementation of UN fisheries agreements. The oceans workshop called for improvement in the Administrative Co-ordination Committee (ACC) Sub-committee on Oceans and Coastal Areas and an improved opportunity for periodic integrated debate on oceans issues.

The UNEP Governing Council (held in Nairobi, February 1-5, 1999) identified many of the same problems and solutions as were identified in the London Oceans Workshop. Special emphasis was placed on implementation of the GPA, as well as strengthening the regional seas programmes and a high level meeting in 2000. There was a call for a global conference dealing with sewage as well as a better opportunity for UN debate of oceans issues. UNEP/GC also called for improving the ACC Sub-committee on Oceans and Coastal Areas plus the need to review the terms of reference of GESAMP.

Rules of Procedure

The meeting acknowledged the recently adopted Arctic Council Rules of Procedure and considered complimentary operating guidelines such as those being developed by EPPR. Draft operating guidelines were prepared by Joe Nazareth from Denmark/Greenland and the meeting undertook a preliminary review of the proposed guidelines. The draft operating guidelines found in Appendix IV will undergo further intersessional review and will be considered again at the next PAME Meeting. PAME will also continue to collaborate with other working groups in the development and review of operating guidelines.

In keeping with Rule 8 of the Arctic Council Rules of Procedure, the consensus PAME Meeting Report will be forwarded to Sweden and Finland for their consideration.

Election of PAME officials

Denmark / Greenland nominated John Karau (Canada) and Tom Laughlin (USA) to serve as Chairman and Vice-chairman respectively for the next 2 year period. These nominations were seconded by Iceland and Canada with subsequent endorsement by the meeting.

PAME Secretariat

The Arctic Council accepted at its meeting in Iqaluit “the kind offer of the Government of Iceland to host the PAME secretariat on a voluntary funding basis”. David Egilsson from Iceland informed PAME on the progress in establishing the secretariat in Iceland:

- a) the secretariat will be located in Akureyri and will share the same accommodation as the CAFF secretariat;
- b) accommodation is already available;
- c) it is planned that the secretariat will start to operate in the beginning of May 99;
- d) the approximate annual running cost is \$150,000 based on similar functions as is provided within the CAFF Secretariat and as shown in Appendix V;
- e) it is intended to advertise the secretariat post before the end of February, and take a staffing decision in early March; and
- f) the job description will be in English and the Arctic States will have the opportunity to advertise the post in their countries.

Several delegations informed the meeting of the willingness of their government to provide voluntary contributions and some have already allocated funding for this purpose. The Chair and Vice-chairman agreed to assist Iceland in developing the job description for the secretariat post.

Iceland was asked whether it considered that the two year trial period would start at the beginning of 1999 or at the time when the secretariat started to operate.

The delegate from Iceland noted with appreciation the generous offers of voluntary contributions and informed the meeting that his government regarded the start of the trial period to begin when the secretariat started to operate. The initial tasks of the PAME secretariat are described below:

- help coordinate the PAME work programme to ensure efficiency;

- arrange regular meetings and support reporting on the work programme progress; and
- support development of a possible RPA clearing house mechanism and other work programme support elements.

Shipping

The Arctic Council agreed to “promote ... the assessment of current and potential shipping activities to assist determining what, if any, additional Arctic shipping measures are required, including work on an International Code of Safety for Ships operating in Polar Waters (Polar Code) under the auspices of the International Maritime Organization (IMO)”. The Norwegian delegation, as the current lead country within PAME on Shipping Activities, was asked to inform the meeting on the status of the work and other possibilities that could be explored such as a snapshot analysis using readily available data. In addition, the Canadian delegation was invited to brief the meeting on the status of the Polar Code development.

In presenting their paper on future work on shipping activities, Norway proposed that the approach shift from the present data collection to an evaluation of the concrete environmental problems associated with shipping activities in the Arctic and on the basis of the collective current knowledge. This was agreed and several examples of possible concrete problems were mentioned such as oil transfer, discharges of ballast water and eco-tourism/traffic by cruise vessels.

On the basis of the discussion the following stepwise approach was agreed:

1999 - 2000

- Norway to lead a correspondence group to identify and prioritize the environmental problems related to current and potential shipping activities in the Arctic

2000 - 2002

- to identify and assess the adequacy of current measures for addressing the problems identified and identify possible gaps
- consider appropriate measures to fill the gaps identified and provide recommended actions to the Arctic Council

It was agreed to provide recommendations to the Arctic Council in concert with the updating of the PAME Analysis of International Agreements and Arrangements scheduled for completion in 2002. For the first step on identification of problems, it was agreed to establish a correspondence group under the lead of Norway with members from the Arctic countries, other Working Groups, and PAME Observers organizations.

Victor Santos-Pedro from the Canadian Delegation gave an update on the development of the Polar Code. It is a proposed harmonized system for ensuring the safety of shipping in Polar Waters and is being developed as an International Maritime Organization (IMO) Polar Code (Code of Safety for Ships in Polar Waters). The code will provide general requirements and recommendations, which will be defined in detail in other documents, including the International Association of Classification Societies (IACS) Unified Requirements for Polar Class Vessels.

In March 1998, a draft Code of safety for ships in Polar waters was presented to IMO by the international outside working group (OWG) of national administrations and other interested organizations. At this meeting it was decided that all references to the Code being mandatory should be removed and that the Code should be used as a framework for ship safety. Throughout 1999, the IMO Correspondence Group on the Development of the Polar Code - chaired by Canada and comprising a number of national administrations and other industry bodies - will continue to address outstanding issues and concerns. The draft Code will then pass through future IMO meetings, with voluntary implementation anticipated around 2001.

Offshore Oil and Gas Guidelines

The Arctic Council agreed to “Promote the Application of the Arctic Offshore Oil and Gas Guidelines and recommend their review in the year 2000”. Delegations were invited to report on country application of the guidelines and consider how best to monitor and promote use of the guidelines. In addition, IUCN and E&P Forum were invited to present their planned guideline activity.

Representatives from E&P Forum and IUCN gave a presentation on their draft document “Oil and Gas Exploration and Production in Arctic and Subarctic Offshore Regions -

Guidelines for Environmental Protection”. They noted that the draft Guidelines were complimentary to the onshore guidelines produced by E&P Forum and IUCN in 1993. The draft guidelines were prepared by an E&P Forum Task Force in collaboration with scientists from IUCN and build on the 1993 onshore guidelines. The intent of the Guidelines is to provide guidance to companies, officials and other stakeholders for the development of oil and gas resources in a manner that does not cause unacceptable environmental or socio-economic impacts in ice-prone offshore and nearshore northern waters. The Guidelines address impacts at and around exploration and production sites. They do not cover the impacts of oil and gas exploration and production associated with coastal, land-based infrastructure, which are covered in the onshore guidelines.

The deadline for comments is May 15, 1999 and copies have been sent to the Arctic Council governments as well as to PAME members. The intent is to test the guidelines as a pilot project for one year and then finalize them in 2000.

PAME agreed to review the draft guidelines with a particular focus on ensuring complimentary approaches between the two sets of offshore guidelines. Comments will be provided directly to the IUCN and E&P Forum contacts.

Countries provided brief progress reports on their application of the PAME Arctic Offshore Oil and Gas Guidelines and noted that the future workplans should include both short and longer term actions. The following was agreed:

Short term : 2000

- Provide comments to E&P and IUCN contacts on their draft guidelines, particularly with respect to ensuring complimentary requirements
- Provide comments to the Secretariat on proposed amendments or revisions to the PAME Arctic Offshore Oil and Gas Guidelines
- Prepare a progress report for the next Minister’s Meeting on meeting the goals and objectives for the PAME Guidelines

Longer term : 2000 - 2002

- Consider amendments or revisions to the PAME Guidelines by 2002
- Consider indicators for reporting on effectiveness of the guidelines as part of the Analysis of International Agreements and Arrangements

The meeting also recognized that the PAME Guidelines were showing early signs of success through:

- Norway / USA / Russian draft guidelines
(to be provided to PAME for information)
- Russian draft guidelines
(to be provided to PAME for information)

WWF noted their plans to evaluate the effectiveness of the PAME Guidelines and offered to submit the results to a future PAME Meeting.

Analysis of International Agreements and Arrangements

The Arctic Council agreed to “Promote ... an assessment of the adequacy of existing international agreements and arrangements related to the protection of the Arctic marine environment”. The Canadian delegation submitted a brief discussion paper on updating the 1996 PAME report beginning with a preliminary review for reporting to the next Arctic Council Meeting and later a comprehensive assessment by the year 2002. The delegation of Denmark/Greenland provided a status report on similar work that has been carried out by EPPR.

The 1996 PAME assessment report was based on a source by source assessment of the inputs of pollutants to the Arctic marine environment followed by an analysis of the adequacy of the related international instruments. The sources of pollutants were divided into land-based and sea-based sources. The land-based sources assessed were urban residential settlements, mining, oil and gas, nuclear activities, industrial complexes, ports and harbors and other coastal developments, forestry and land-based activities outside the Arctic. The sea-based sources assessed were dumping of wastes at sea, shipping activities and offshore oil and gas activities.

The related instruments were divided into global and regional instruments. Although leading to several recommendations related to the different sources, the overall conclusion was that at the present time there was no need to negotiate a new international legal instrument for the protection of the Arctic marine environment. The

Ministers accepted PAME's recommendation and requested PAME to maintain an overview of the effectiveness of existing instruments and to report to Ministers on a regular basis.

PAME agreed that the goals of the current analysis are to update the 1996 information on instruments contained in the PAME report, review any new instruments that may have been developed since the initial review, fill any gaps that may be identified and expand the review to include instruments on habitat protection but not related to emergencies. The update should be comprehensive and cover land-based, ocean dumping, shipping and offshore oil and gas activities. The same methodology as that used in the 1996 report should be used to describe any new instruments added and for ease of reference a comparative text/redlining method could be used when new information is added to the 1996 text. It was noted that numerous reviews of legal instruments have been undertaken by other Working Groups, ACOPS and others and that this information should be taken into account to the extent that it is relevant to PAME.

In this regard CAFF offered to provide input from its ongoing review of legislative mechanisms related to marine conservation.

A two-phased approach will be taken as follows:

Phase I (1999-2000)

1) Update the factual information contained in the 1996 report, add and describe any new instruments that have been developed since the 1996 report, add and describe any additional instruments needed to cover habitat protection and prepare a report for the Arctic Council meeting in 2000.

2) Review new information since 1996 on sources (e.g. AMAP and National Reports) and related national legislation, and prepare an initial draft of changes to the 1996 report.

It is proposed that the PAME Secretariat could carry out the factual updating of instruments and source information as well as the collection of information on major changes in relevant national legislation. The PAME Working Group will be responsible for the review of draft materials.

3) A pilot assessment project by a lead country, yet to be determined, of one or two priority instruments may be carried out to provide information for assistance in carrying out Phase II.

Phase II (2001-2002) (lead country to be identified)

- 1) Complete the update on sources.
- 2) Conduct an assessment of the adequacy of the instruments and make recommendations to the Arctic Council in 2002.
- 3) Preparation of the report to Ministers.

Although not discussed by the Arctic Council, the dumping of wastes at sea is still a matter falling under PAME's remit. The meeting agreed that this topic should continue to be included in its workplans for the Analysis of International Agreements and Arrangements.

Regional Programme of Action

The Arctic Council adopted the Arctic Regional Programme of Action and "agreed to work vigorously for the early implementation of the actions described in the first phase of the RPA and in a manner consistent with the associated international agreements and arrangements".

The initial phase focuses on impacts in the marine environment. Specific and immediate actions are noted in the RPA in bold text. The Chairman noted that a number of these immediate initiatives are part of ongoing multilateral work (e.g. POPs) and monitoring their progress may suffice. Other immediate initiatives (e.g. partnership conference) would benefit from more detailed project proposals.

In addition, there are a number of RPA related activities for which progress and status reports were requested:

- CSD Preparations (Chair)
- ACAP (Norway)
- PCB Project (AMAP)
- Russian NPA Arctic (Russia)
- Russian Partnership Conference (ACOPS)
- Bilateral and Multilateral Assistance to Russia (All)
- Other Country Reports on RPA or GPA (All)

The Chair noted that the GPA has been highlighted for attention at the Commission on Sustainable Development (CSD) and the meeting requested Canada (as the lead Country) to report on the RPA at CSD. The following draft statement for CSD was prepared:

“At the First Ministerial Meeting of the Arctic Council September 18, 1998, Ministers welcomed the Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities, known as the RPA. The RPA responds to the Global Programme of Action call for regional action by addressing impacts on the Arctic marine and coastal environments resulting from land-based activities. The initial phase focuses on the major findings of the Arctic Council’s Arctic Monitoring and Assessment Programme’s reports that Persistent Organic Pollutants and Heavy Metals present major pollution threats to the Arctic marine environment and must be addressed.

The Russian Federation is developing a Russian NPA-Arctic. In order to help implement this plan, the Russian Federation will host a partnership conference to seek funds from donors and international funding institutions to remediate regional priority pollution sources and activities identified in both the RPA and the Russian NPA-Arctic.”

Norway provided a progress report on its development of ACAP and noted that a preparatory meeting will be held April 19-20, 1999 in Oslo.

General agreement was reached on the following points:

- ACAP is expected to be the overall Arctic Council strategy on the implementation of the recommendations contained in the AMAP Report;
- ACAP should in that respect be developed as an overall umbrella containing objectives, guiding principles, priority criteria as well as a more specific strategy for the further work. It was observed that the work so far had been focused on particular projects;
- The implementation of ACAP as an overall strategy will involve all Arctic Council Working Groups, as well as possible ad hoc arrangements related to particular projects;
- The RPA is a specific action plan under ACAP. At the same time it goes beyond ACAP because it also covers physical alterations/habitat destruction and other pollutants not covered by the AMAP Report; and
- All projects in the Arctic regarding the pollutants covered by the AMAP Report will in this sense be considered as ACAP Projects, even if they are implemented under the RPA. As such it is important not to label certain projects as “ACAP Projects” in contrast to “RPA Projects”.

Based on these points of discussion the meeting developed a schematic portrayal for ACAP shown in Appendix VI. It recognizes the strategic role for ACAP with respect to Pollution Prevention and Remediation as well as the related mandates and activities of the Arctic Council working groups.

It also recognizes that all working groups should be considered as implementing bodies including the need to consider special collaborative arrangements where an ACAP related project would involve more than one working group or be outside the scope of the existing working groups. With regard to the preparatory ACAP meeting in April, it was noted that the dates will prevent the PAME Chair and Vice-chair and possibly other WG Chairmen from attending because of CSD-7 commitments. It was therefore proposed that the meeting should not make any conclusions on policy or management issues. It was recommended that Norway, as the lead country, prepare for such a discussion involving all WG Chairmen in connection with the upcoming SAO meeting in May.

David Stone on behalf of AMAP provided a progress report on the PCB project which is shown in Appendix VII.

On behalf of ACOPS, Dr. L. Jeftic and Prof. V. Lystsov presented the National Plan of Action for the Protection of the Marine Environment from Anthropogenic Pollution in the Arctic Region of the Russian Federation (Russian NPA-Arctic) and the Partnership Conference. They gave an overview of the preparation of the Russian NPA-Arctic, its principles, objectives, structure, expected results and the present timetable for its further development and implementation. They recalled that the Ministerial Meeting of the Arctic Council (Iqaluit, Sept. 1998) specifically stressed that the Ministers of the Arctic Countries support the efforts of the Russian Federation to develop and implement the Russian NPA-Arctic, including seeking appropriate support to help Russia finalise the Russian NPA-Arctic and host a Partnership Conference to be organized with the assistance of the Advisory Committee on the Protection of the Sea (ACOPS) which would seek funds to remediate regional priority pollution sources and activities identified in the RPA and Russian NPA-Arctic.

The Russian delegation and ACOPS noted that the people and government of the Russian Federation, as the largest stakeholders in the Arctic Marine Environment, have expressed considerable concern for the need to take measures which will ensure sustainable development in the Arctic region. One of the necessary measures must be the control of land-based activities which degrade the marine environment, an action that will only be successful if it is conducted in harmony with its circumpolar neighbours. The objective of the proposed Russian NPA-Arctic is to provide a policy framework and

information base for such measures, taking into account the existing cooperation between Russia and the other seven circumpolar countries within the Arctic Council.

The overall management objective of the Russian NPA-Arctic is to reduce pollution and habitat damage to the Arctic environment in a manner which permits the conservation and sustainable development of its natural resources, and removes the health threats from anthropogenic sources of pollution. This is also the aim of the GPA and other related Regional Programmes of Action. At the same time the Russian NPA-Arctic should be developed taking into account national priorities and strategies. It will require a long-term commitment by the country authorities at all levels including federal and regional. The Russian NPA-Arctic should support development of adequate environmental policies and legislation, promote the use of economic instruments to encourage environmentally sound actions, strengthen institutional capacity and human resources, and increase regional and local capacity to finance environmental measures.

Attraction of investments to help solve the marine environmental problems in the Russian Arctic requires as a prerequisite creating favorable political, legislative, economic and managerial conditions as well as the availability of educated and trained personnel. The Federal budget of the Russian Federation is constrained due to difficult current economic situations, however the attraction of regional funds is considered more hopeful.

Taking into account that Russian NPA-Arctic implementation will lead to improvement of the environmental situation not only in Russia but also for other circumpolar countries, there should be strong interest by all circumpolar countries (governments and private sector) in the further elaboration and implementation of the Russian NPA-Arctic. The Russian NPA-Arctic also must be closely connected with the sustainable economic development of the Arctic. Development of an investment portfolio which is based on pre-investment studies and concrete project proposals should be conducted in close cooperation with representatives of the International Financial Institutions. This portfolio should be presented to the Partnership Conference which should be held at the beginning of the year 2001. In order to explore the interest of the potential partners in the process of the protection and sustainable development of the Russian Arctic, a Preparatory Meeting of all stakeholders, in particular potential partners in the process, should be held at the beginning of the year 2000. Partnership with the International Financial Institutions and the private sector should be solicited as early as possible. The NPA-Arctic and the Partnership Conference should be supported through collaboration with all stakeholders, private sector, multilateral donor organisations, UN agencies and non-governmental organizations.

The main objective of the Partnership Conference is to seek financial support for activities and proposals which are essential for the implementation of the Russian NPA-Arctic, in particular:

- preparation of an analysis of the economic, social and cultural root causes of the problems identified as hindering the sustainable development and protection of the marine coastal areas and their resources;
- identification of main sources of environmental pollution and areas with significant environmental degradation ("environmental hot spots") which need to be addressed as regional priorities;
- preparation of pre-investment studies for such "hot spots", once they are identified;
- development of proposals for projects relevant to the protection and sustainable use of the marine coastal environment and their resources;
- enhancement of the existing capacity for environmental management in the Russian Arctic;
- improvement of the current policy of environmental protection of the Russian Arctic;
- suggestion for changes in the legislation relevant to the environmental protection of the Russian Arctic;
- establishment and management of specially protected areas within marine and coastal regions of the Russian Arctic;
- introduction of an "Arctic Charter" to protect the traditional interests of the indigenous human population of the Russian Arctic; and
- development of sustainable financing for the Russian NPA-Arctic.

The meeting expressed its appreciation for this comprehensive presentation and added its support for priority attention to the Russian NPA-Arctic and the Partnership Conference. The following agreements were developed:

- official adoption of the NPA-Arctic by the authorities of the Russian Federation is expected by May 1999;
- a detailed workplan for the implementation of the Russian NPA-Arctic, organisation of the Partnership Conference (beginning of 2001) and the Preparatory Meeting for the Partnership Conference (beginning of 2000) should be prepared by the representatives of the Russian Government and ACOPS by May 1999;

- Russian NPA-Arctic should be linked with the ongoing bilateral and multilateral activities and for that purpose Arctic states will submit additional information on bilateral activities to the PAME Secretariat by the end of March 1999;
- information on the Russian NPA-Arctic and the Partnership Conference should be presented to various international fora like CSD; and
- Arctic states will seek appropriate support for the implementation of the Russian NPA-Arctic and organization of the Partnership Conference.

PAME also supported the efforts of the Russian Federation and ACOPS to apply for a GEF assisted project which should be coordinated with the GEF assisted project on food contamination of the indigenous people being developed by ICC. In addition, it was agreed that effective communication channels should be established in order to keep the PAME secretariat and individual Arctic states informed about the actions taken for the implementation of the Russian NPA-Arctic and preparation of the Partnership Conference.

The meeting also considered a number of reports on bilateral and multilateral assistance. These reports include:

- Annex to Plan of Action for Nuclear Safety Issues - List of Measures and Projects (Royal Norwegian Ministry of Foreign Affairs)
- Plan of Action (1997-98) for the Implementation of Report No. 34 (1993-94) to the Storing on Nuclear Activities and Chemical Weapons in Areas Adjacent to our Northern Borders (Royal Norwegian Ministry of Foreign Affairs)
- Major Environmental Projects in North-Western Russia and the Baltic States (Ministry of the Environment, Finland)
- Multilateral Cooperative Project on Phase-out of PCB Use, and Management of PCB-contaminated Wastes in the Russian Federation
(Submitted by AMAP)
- Russian Program - Description of Program and List of Projects with Relevance to PAME (Submitted by Canadian International Development Agency (CIDA))

It is hoped that these reports will be of assistance to the Russian Federation and ACOPS in their preparations for the Partnership Conference, particularly with respect to building on existing programmes.

The Canadian delegation provided a status report on the preparation of its National Programme of Action (NPA) which is expected to shortly undergo a 60-day public

consultation period. Draft copies of the Arctic Chapter of the NPA were circulated as background information.

There was renewed discussion on the support needed for the development of a possible RPA clearing house mechanism and the important links to the GPA clearing house mechanism.

Based on these status reports PAME concluded that more detailed workplans should be developed for the:

Partnership Conference (see Appendix VIII)
and
Clearing House (see Appendix IX)

The Canadian delegation submitted a proposal on developing Mining Guidelines which is shown in Appendix X. The related RPA action item reads:

“Develop and adopt Arctic-wide environmental guidelines on opening, operating and closing mines in the Arctic Coastal Zone. Mining is defined as the extraction, milling and concentration of ore.”

Discussion on the proposal resulted in the following observations:

- countries had insufficient time to review the proposal prior to the meeting and wished to consult with internal agencies;
- this is a requirement of the RPA, but is not identified as a priority for the first stage of implementation;
- the primary focus of the proposed guidelines is marine protection but they would also be relevant to other components of the environment;
- clarification of intended users is required;
- should the guidelines be developed under ACAP for Arctic-wide application;
- a possible alternative to guidelines would be publication and distribution of “best practices” used in one or more countries, possibly as part of a clearing house;
- would the guidelines establish new standards, reflect best practices, or current minimum standards; and
- the guidelines could not be completed by the next Arctic Council Meeting.

Canada was asked to consider these observations and revise their proposal for further review and consultation. Canada agreed and a revised proposal will be distributed in advance and discussed at the next PAME Meeting.

Coastal Zone Management (CZM)

The definition of the coastal zone is part of future work and in subsequent stages the RPA will be expanded to more fully address impacts on this area.

The Chair presented a concept proposal for describing what are the coastal zone management issues to be addressed through the RPA. In considering this issue the meeting agreed to develop a draft working definition of the coastal zone which could be used to further elaborate a common understanding with other working groups. At the same time it was recognized that early clarification of the CZM issue is important for Norway’s development of ACAP, EPPR’s work on sensitivity mapping, CAFF’s work on biodiversity, AMAP’s future work in relation to the marine environment, and IUCN’s proposed marine workshop.

Preliminary draft working definitions for the coastal zone were introduced and are shown in Appendix XI. Their purpose is not to suggest that Arctic Council activities

which may ameliorate environmental conditions in the area defined would come solely within the purview of PAME. To the contrary, the purpose is to clarify PAME's work and to facilitate contributions from other Arctic Council activities to help implement the RPA. These draft working definitions and other definitions of the coastal zone will be considered at the next PAME Meeting.

Joe Nazareth on behalf of EPPR provided a status report on the Circumpolar Map of Resources at risk from oil spills in the Arctic. The overall goal of the project is to develop a comprehensive circumpolar Arctic database containing:

1. major potential sources of oil spills;
2. biological resources at risk in case of a spill; and
3. human communities living in the Arctic.

The data will cover the four different Arctic seasons and the end product will be a GIS database. The user friendly data management system will be set-up so that circumpolar maps for any region within the EPPR activity zone can be printed with selected data layers determined by the user. It is intended to serve as a tool for considering special precautions when oil operations are being planned or carried out close to sensitive areas, such as those containing extremely vulnerable species that may be experiencing population threats. The GIS database and hard-copy maps generated from this project will also identify resources at risk that have special implications for the people of the Arctic. The maps will serve as a first order overview of risks posed by potential oil spills for governments, international organization and the general public. It will also be available on the web thus providing information to school children and other public groups about the natural resources of the Arctic and government plans and actions for their protection.

PAME expressed its thanks to EPPR for their initiative and asked to be kept updated on the status of the project. In addition, PAME suggested that the project could also be of interest to CAFF and IUCN's marine workshop.

The CAFF Secretariat presented a CPAN Status Report. The Circumpolar Protected Areas Network (CPAN) Strategy and Action Plan was endorsed by Ministers at Inuvik in 1996. It contains several action items related to conservation of marine ecosystems and habitats, which are currently severely underrepresented in the CPAN network.

Since endorsement of the Strategy, the CPAN network has been expanded by approximately 110,000 km², mainly in the Russian Arctic. The CPAN Strategy has had positive effects on national legislation and has been a useful tool for advancing national

habitat conservation work. A major drawback of the CPAN Strategy and Action Plan is its failure to provide standardized reporting and indicators for measuring progress.

A Reporting and Evaluation Guide is under development with a third draft expected at CAFF VII in April 99. A copy will be provided to PAME for its use, if appropriate, in the evaluation of the Oil and Gas Guidelines. Under the CPAN initiative, CAFF is also preparing a report on Marine Conservation in the Arctic. It will summarize national and international legal mechanisms in place to protect marine habitats and living resources as well as the main concerns of the Arctic countries with respect to marine conservation. The main initial conclusion is that most countries consider existing legislation is sufficient to adequately protect the marine environment, while its use and enforcement leaves much to be desired.

At the Iqaluit Arctic Council Meeting, September 1998, the Ministers directed CAFF to continue efforts to implement and further develop the CPAN with a specific focus on the marine component. CAFF is looking forward to collaborate with PAME in this area. The upcoming IUCN/CAFF/PAME Arctic Marine Workshop will provide an opportunity to identify areas of mutual interest and future collaboration.

Jeanne Pagnan of IUCN presented an overview on the proposed IUCN Marine Workshop scheduled to take place in St. Petersburg, September 1999. The workshop will be cosponsored by CAFF and PAME as an important contribution to CAFF's work on biodiversity and marine protected areas as well as PAME's work on coastal zone management and habitat protection under the RPA. Chairs of CAFF and PAME serve on the Executive Steering Committee for the workshop. In addition CAFF and PAME representatives also serve on the working committee for the workshop.

The meeting welcomed the opportunity to work in collaboration with CAFF and IUCN on this important initiative.

PAME Workplans

The PAME Workplans are summarized in Appendix XII. The meeting agreed that two and possibly three meetings would be needed before the next Arctic Council Meeting expected to take place in the fall of 2000. Denmark/Greenland and Iceland offered to host upcoming PAME meetings with the first meeting tentatively scheduled for October 1999.

Other Business

The delegation of Denmark/Greenland informed the meeting that a conference on waste management in small Arctic Communities is scheduled to be held in Greenland sometime between mid-September and mid-October 1999. Additional information will be forwarded.

LIST OF PARTICIPANTS - PAME Experts Meeting February 15-18, 1999 – Delta Ottawa Hotel, Ottawa, Ontario

PAME Secretariat

Mr. John H. Karau, PAME Chairman, Environment Canada
Ms. Danielle St-Onge, Environment Canada
Ms. Anne Patton, Environment Canada

Canada

Mr. Chris Cuddy, Indian Affairs & Northern Development (DIAND)
Mr. Brian Gibson, Indian Affairs & Northern Development (DIAND)
Ms. Laura Johnston, Environment Canada, Prairie and Northern Region
Ms. Renée Sauvé, Foreign Affairs and International Trade (DFAIT)
Mr. Victor Santos-Pedro, Transport Canada, Prairie and Northern Region
Mr. Robert Wolfe, Transport Canada
Mr. Harley Trudeau, Government of Yukon

Denmark / Greenland

Ms. Birte Rindom, Danish Environmental Protection Agency - EPA
Mr. Joe Nazareth, Ministry of Environment and Energy
Mr. Niels Cajus Pedersen, Home Rule Government of Greenland

Iceland

Mr. David Egilsson, Icelandic Environmental & Food Agency, Office of Marine Environmental Protection

Norway

Mr. Per W. Schive, Ministry of Environment
Ms. Gunnbjorg Navik, Ministry of Environment

Russian Federation

Mr. Yuri Alexandrovski, Head of Nature Use and Environmental Protection Policy Division
Ministry for Regional Policy of the Russian Federation

USA

Mr. Thomas Laughlin, National Oceanic and Atmospheric Administration (NOAA)

CAFF

Mr. Snorri Baldursson, CAFF Secretariat

ACOPS

Dr. Ljubomir Jeftic, Advisory Committee on Protection of the Sea (ACOPS)

Dr. Vitali Lystsov, RRC “Kurchatov Institute” and Chairman of Russian Arctic Working Group of ACOPS

WWF

Ms. Elizabeth Leighton, Coordinator, WWF International Arctic Programme

Inuit Circumpolar Conference

Mr. Terry Fenge, Director of Research

E&P Forum

Dr. Russell Tait, Chairman of the Forum’s Task Force

Indigenous Peoples Secretariat

Ms. Alona Yefimenko, IPS Technical Advisor

RAIPON

Mr. Pavel Suliandziga, Vice-president of RAIPON (Russian Association of Indigenous Peoples of the North)

IUCN

Ms. Jeanne Pagnan, Arctic Co-ordinator

Mr. Tim Lash, Assistant Director

Other Invited Participants

Ms. Ruth McKechnie, Chief, Northern Division, Conservation, Policy and Planning

Mr. David Stone, AMAP Representative for Canada

List of documents distributed at PAME Experts Meeting February 15-18, 1999

- 1) Annex to Plan of Action for Nuclear Safety Issues - List of Measures and Projects**
Royal Norwegian Ministry of Foreign Affairs
- 2) Agenda and Annotated Agenda for PAME Meeting**
- 3) Appendix II to the Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities (RPA)**
Detailed description of the actions
- 4) Arctic Council Rules of Procedure**
- 5) Background Note: Arctic Council Working Group on Protection of the Arctic Marine Environment (PAME)**
- 6) Concept Proposal for Coastal Zone Management (CZM)**
Submitted by Chairman
- 7) Development of ACAP: Workplan**
Submitted by Norway
- 8) Development of a Code of Polar Navigation**
- 9) DRAFT - Operating Guidelines for the Protection of the Arctic Marine Environment Working Group**
Submitted by Denmark/Greenland
- 10) Draft information on CAFF Secretariat budget and duties for the PAME meeting, February 15-18.**
Submitted by Iceland
- 11) Guiding Principles for the Conduct of Research**
(Copied from IASSA Newsletter, Fall 1998)

- 12) Implementing the Global Program of Action - Regional Approaches in the North Atlantic and Arctic Waters**
Submitted by Environment Canada/Norwegian Ministry of the Environment
- 13) Information on PCB Project in the Russian Federation**
Submitted by Norway (AMAP)
- 14) Letter from IUCN to CAFF Chair, Mr. Kevin McCormick and to PAME Chair, Mr. John H. Karau**
Re: IUCN's World Commission on Protected Areas with respect to the Arctic region
- 15) Major Environmental Projects in North-Western Russia and the Baltic States**
Ministry of the Environment, Finland
- 16) Multilateral Cooperative Project on Phase-out of PCB Use, and Management of PCB-contaminated Wastes in the Russian Federation**
Submitted by AMAP
- 17) National Plan of Action for the Protection of the Marine Environment from Anthropogenic Pollution in the Arctic Region of the Russian Federation (NPA - Arctic) and the Partnership Conference**
Submitted by ACOPS
- 18) National Plan of Action for the Protection of the Marine Environment from Anthropogenic Pollution in the Arctic Region of the Russian Federation (NPA - Arctic)**
Submitted by ACOPS
- 19) Newsletter - for Arctic Council Permanent Participants and the Indigenous Peoples' Secretariat, February 1999**
 - Guiding Principles for the Conduct of Research
 - Schedule of Events 1999
 - Distribution List for Newsletter
- 20) Oil and Gas Exploration and Production in Arctic and Subarctic Offshore Regions - Draft Guidelines for Environmental Protection**
Submitted by IUCN / E&P Forum

- 21) Opening up the Arctic**
(News article looking at the harmonization of polar shipping from the perspective of Mr. Victor Santos-Pedro, Regional Director, Marine Prairie & Northern Region, Transport Canada)
- 22) PPC Report to the Fourth Ministerial Conference “Environment for Europe”**
Submitted by Denmark/Greenland
- 23) Plan of Action (1997-98) for the Implementation of Report No. 34 (1993-94) to the Storing on Nuclear Activities and Chemical Weapons in Areas Adjacent to our Northern Borders**
Royal Norwegian Ministry of Foreign Affairs
- 24) Preparations for the Seventh Session of the Commission on Sustainable Development - Draft decision submitted by the Negotiating Group**
Governing Council of the United Nations Environment Programme
- 25) Proposal for Updating the 1996 PAME Report on the Adequacy of Existing Measures for the Protection of the Marine Environment**
Submitted by Canada
- 26) Proposal to develop Mining Guidelines**
Submitted by Canada
- 27) Revision of the PAME Legal Analysis**
Submitted by Canada
- 28) Russian Program - Description of Program and List of Projects with Relevance to PAME**
(Submitted by Canadian International Development Agency (CIDA))
- 29) Shipping Activities in the Arctic**
Submitted by Norway
- 30) Strategic Plan for the Conservation of Arctic Biological Diversity**
(Conservation of Arctic Flora and Fauna (CAFF))
- 31) The Iqaluit Declaration**
Iqaluit, Canada, September 17-18, 1998
- 32) WWF Arctic Bulletin No. 4.98**

**PAME Meeting - Draft Agenda
February 15-18, 1999
Delta Hotel, Ottawa**

Monday, February 15th

10:00	Introductions
10:15	Adoption of the Agenda
10:30	Rules of Procedure
11:00	Coffee Break
11:20	Election of Officials
11:40	Report from the First Meeting of the Arctic Council
12:00	PAME Secretariat
12:30 - 14:00	Lunch
14:00	Shipping Analysis
15:30	Coffee Break
15:50 - 17:00	<ul style="list-style-type: none"> • Offshore Oil and Gas • Dumping Wastes at Sea • Legal Analysis

**PAME Meeting - Draft Agenda
February 15-18, 1999
Delta Hotel, Ottawa**

Tuesday, February 16th

Regional Programme of Action

09:00 - 12:30	<u>Status Reports on:</u> <ul style="list-style-type: none"> • CSD Preparations (Chair) • ACAP (Norway) • PCB Project (AMAP) • Russian NPA Arctic (Russia) • Russian Partnership Conference (ACOPS) Bilateral and Multilateral <ul style="list-style-type: none"> • Assistance to Russia (All) • Other Country Reports on RPA (All)
12:30 - 14:00	Lunch
14:00 - 17:00	<u>Priority Setting and Project Proposals:</u> <ul style="list-style-type: none"> • Priority Setting Background Presentation (All) • Project Proposals (All) • Clearing House User Needs and Information Providers (All) • Reporting Requirements (Chair) • Drafting Assignments for Project Proposals
19:00	Reception

PAME Meeting - Draft Agenda
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Delta Hotel, Ottawa

Wednesday, February 17th

09:00 - 11:00	<u>Coastal Zone Management:</u> Coastal Zone Management (CZM) Discussion Paper (Chair) <u>Status Reports on:</u> <ul style="list-style-type: none"> • Sensitivity Mapping (EPPR) • CPAN (CAFF) • IUCN Workshop on CZM (IUCN) • CZM Concept Proposal (All)
11:00 - 11:20	Coffee Break
11:20 - 12:30	Review new project proposals
12:30 - 14:00	Lunch
14:00 - 15:30	<u>Next Steps:</u> <ul style="list-style-type: none"> • Continue Proposal Review • Future Work Plans • Report to SAO Meeting • Schedule Next Meeting(s)
15:30 - 15:50	Coffee Break
15:50	Draft Meeting Report

**PAME Meeting - Draft Agenda
February 15-18, 1999
Delta Hotel, Ottawa**

Thursday, February 18th

09:00 - 10:00	Read Draft Meeting Report
10:00 - 11:30	Review and Adopt Meeting Report
11:30	Close Meeting

DRAFT

Operating Guidelines for the Protection of the Arctic Marine Environment Working Group

1. Representation

- 1.1 Each Arctic state and permanent participant assigns one lead national representative and one lead representative respectively and other representatives each Arctic state and permanent participant thinks appropriate.
- 1.2 The number and names of the delegation shall be given to the Secretariat at least 14 days prior to a meeting.
- 1.3 The host state and the Chair may, subject to consensus by the national representatives, invite experts or organisations that can contribute to the work of the WG. Costs associated with the attendance of the experts or organisations shall not be borne by the WG unless authorised by a decision of the Arctic states.

2. Chair, Vice-chair and Organisation

- 2.1 In consultation with the SAOs, the WG shall select a Chair and Vice-chair. The period for these positions will be 2 years.
- 2.2 The Chair shall act in a neutral capacity.
- 2.3 The duties of the Chair shall be, in consultation with national representatives, to direct and manage work programs, and to take initiatives and put forward proposals to the WG which could provide the efficient execution of its work.
- 2.4 The projects and activities carried out by the WG shall be organised through the “lead country” principle.

3. Meetings

- 3.1 The WG shall meet at least once in a 12 month period. The date and location for meetings shall be decided by a consensus of the Arctic states.
- 3.2 The responsibility of the organisation of these meetings shall be rotated among the Arctic states and co-ordinated by the Chair and Secretariat.
- 3.3 An invitation to the meeting with a draft agenda proposed by the Chair, in consultation with the representative of the host state, shall be submitted to the national representatives and permanent participant representatives for consensus

at least 60 days in advance.

- 3.4 Documentation for meetings shall be submitted to the national representatives at least 60 days before the meeting.

4. Decisions

- 4.1 Decisions taken by the WG may be adopted by a consensus of all Arctic states present, subject to any objection in writing by an absent Arctic state within 30 days after receiving a report containing the decision.
- 4.2 At WG meetings, decisions shall not occur on any matter that has not been included as an item in an agenda adopted.

5. Reports

- 5.1 A meeting report including the record of decisions shall be distributed to all Arctic states and permanent participant representatives within 30 days of the conclusion of the meeting.
- 5.2 Comments on the meeting report shall be submitted to the Chair and Secretariat within 30 days after issuance.

6. Document management

- 6.1 All documents shall list the title, author, date and relevant agenda number.
- 6.2 Papers are to be submitted to the Secretariat for circulation no less than 60 days prior to the meeting at which they are to be considered.
- 6.3 Papers arriving less than 60 days before the meeting will be considered at the discretion of the meeting representatives.

7. New proposals

- 7.1 New proposals for co-operative activities shall address the elements outlined in Annex I of the AC Rules of Procedure and shall be submitted to the Secretariat for circulation at least 90 days prior to the WG meeting at which they are to be considered.

8. Changes to the Operating Guidelines

- 8.1 The Operating Guidelines may be amended at a WG meeting. Any proposed for amendment must be circulated to the Chair and Secretariat for circulation at least 1 month before the meeting at which it will be considered. The amendment must be approved unanimously.

Appendix V

CAFF Secretariat

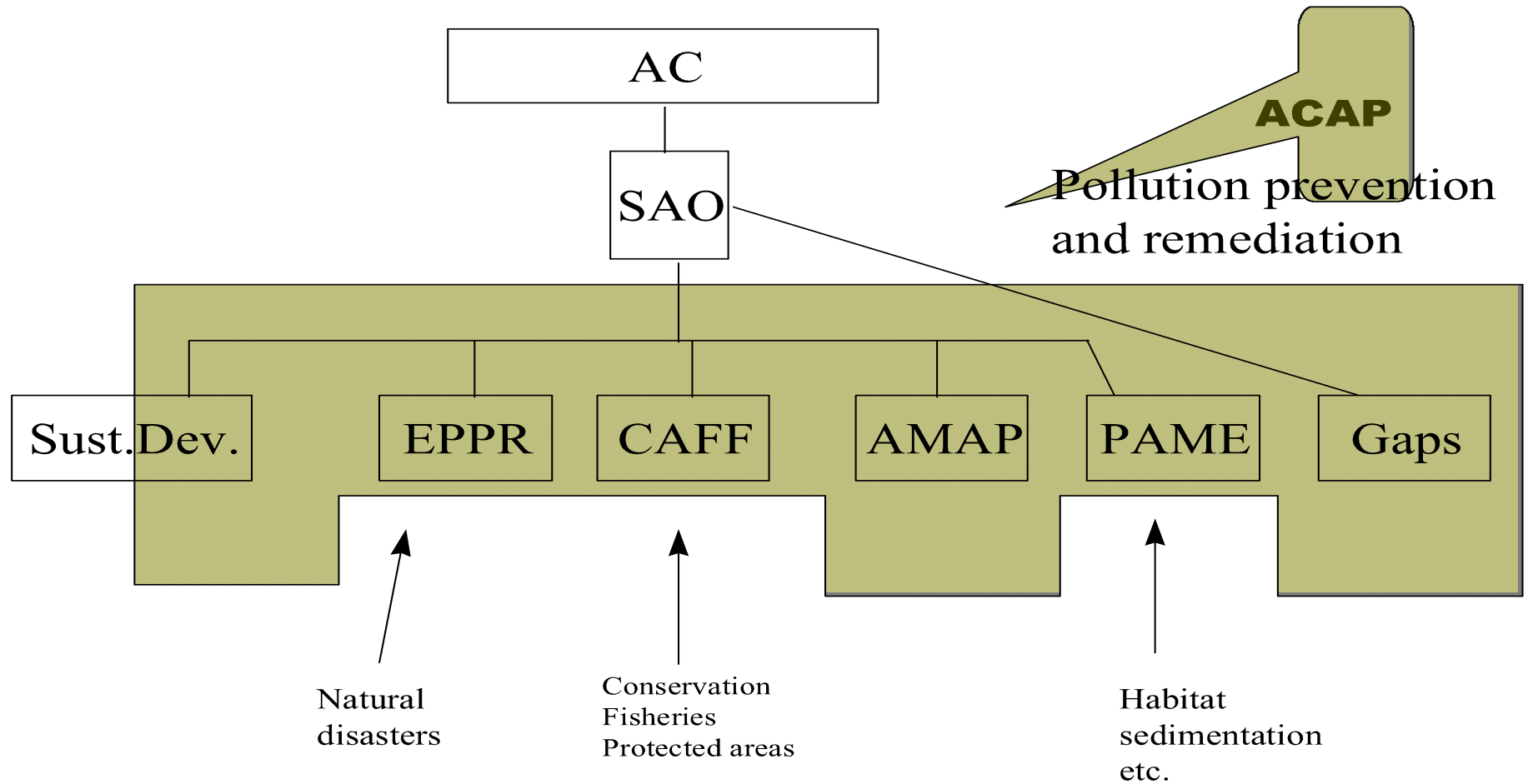
Observations

The CAFF Secretariat has covered staff costs, rent, running costs, printing of (most) CAFF reports and travel of secretariat staff. The Secretariat does not usually cover overhead costs for CAFF meetings or provide travel support to meeting participants. In addition, the Secretariat is managing \$87,000 for ear-marked projects.

Functions of the CAFF Secretariat

The CAFF Secretariat provides the following main functions:

- Assists countries and Chair in implementing CAFF projects, by providing a co-ordinating function.
- Drafts status and progress reports to CAFF National Representatives and Permanent Participants, SAOs and Ministers.
- Leads CAFF projects on exceptional basis (e.g. CPAN Reporting and Evaluation Guidelines; CAFF Biodiversity Overview).
(NOTE: Most of CAFF's work is done on a Lead-country basis)
- Prepares agendas and assists host countries with physical preparations for CAFF meetings.
(NOTE: the Secretariat itself usually does not host CAFF meetings)
- Oversees and pays for printing of (many) CAFF reports.
- Collects, maintains and distributes CAFF information.
(NOTE: the Secretariat does not keep all CAFF relevant data and there is no central CAFF database)
- Maintains and updates the CAFF Homepage.
- Provides liaison with other conservation organizations and interested parties.
- Is the "soul" and corporate memory of CAFF.



Multilateral Cooperative Project on Phase-out of PCB Use, and Management of PCB-contaminated Wastes in the Russian Federation

As a follow-up of the AMAP documentation regarding PCB in the Arctic and Northern environment, and the Ministerial meeting in Alta, Norway June 1997, later supported by the decision of the 1st Arctic Council Meeting in Iqaluit, Canada September 1998, USA introduced an initiative to assist the Russian Federation in handling their PCB problem. This initiative has been supported by all the Arctic States, which decided to establish and implement a Multilateral Cooperative Project on phase-out of PCB use, and management of PCB-contaminated wastes in the Russian Federation. After its implementation, this pilot project might be used as a model for the corresponding Russian Federal Programme. It is planned that the pilot project will be performed mainly by Russian experts and institutions, with assistance of western experts and funding support from the participating countries, and should consist of three phases covering all stages of the problem:

Phase I. Evaluation of the current status of the problem with respect to environmental impact, and development of proposals for priority remedial actions.

Phase II. Feasibility study.

Phase III. Implementation of demonstration projects.

General management of the Project organization and implementation is conducted by the Steering Group (SG), which consists of one representative from each of the countries and international organizations/institutions participating in the project implementation. Other countries and organizations interested in this project can obtain the SG observer status. At present, negotiations on joining the project are carried out with some countries and international organizations, including the Netherlands, NEFCO and UNEP/Chemicals. It was agreed that the AMAP Secretariat will take a role of the international coordinator for Phase I of the Project, which will have duration of 12 months.

The participating countries have already allocated funds requested for implementation of Phase I, and the State Committee of the Russian Federation for Environmental Protection has defined Russian in-kind contribution to the project, which includes participation of environmental protection authorities from all the regions of the Russian Federation.

At present, the necessary contracts with the Russian Performing Entity and other formal documentation are under preparation, and the project should be formally signed during this month.

According to the Project work plan, Phase I comprises the following tasks/activities:

- (1) *Production term characterization.*
To identify total production levels of PCB-containing liquids, number of production facilities and their location. To identify for each production and former PCB production facility the locality where its PCB were/are used to the extent such information can be provided.
- (2) *PCB use term characterization.*
To identify types of PCB use in Russia, both former and current. To identify total production levels of PCB-containing equipment, numbers of such equipment production facilities and their location. To rank the uses in order of magnitude to the extent such information can be provided.
- (3) *PCB-containing equipment use characterization.*
To provide an inventory of PCB-containing equipment in operation and storage, including number, location and condition. To characterize maintenance of PCB-containing equipment.
- (4) *Waste related characterization.*
To estimate state of storage and handling of PCB-containing wastes including facilities put out of operation or abandoned, amounts of wastes and locations of storage sites.
- (5) *Release inventory.*
To estimate annual environmental release of PCB from production facilities, usage, storage and disposal facilities or sites to the extent such information can be provided.
- (6) *Production and use prioritization.*
Based on the results and analysis of Phase I, tasks 1-5 and considering both production, use and storage quantities and estimated releases, to establish selection criteria and prioritize actions for their potential conversion or phase out, with special focus on those practices that potentially have the highest impacts to the Arctic environment.

Partnership Conference on the implementation of the Russian NPA-Arctic (RPA - Gen2)

The Arctic Council Iqaluit Declaration approved the RPA, recognized the important role of PAME in its implementation and supported the Russian Federation efforts to develop a Russian NPA-Arctic and to host a partnership conference in cooperation with ACOPS.

PAME's role in facilitation of the partnership conference process is as follows:

1999 - 2000

In a coordinated manner, but on an individual State basis:

- seek funding to support the process
- seek technical assistance for completion of the Russian NPA-Arctic
- support the partnership process in IFI's and UN Agencies
- reach out to the private sector, NGO's, native groups, the science community et al to seek their active involvement in the process
- support Russian Federation GEF project proposal
- communicate effectively among themselves and with the Secretariat
- participate in a preparation meeting for the conference

Request Russian Federation and ACOPS:

- to take necessary steps to inform the CSD about the development of the Russian NPA-Arctic and the Partnership Conference
- to prepare a detailed workplan (by May 1999) for the implementation of the Russian NPA- Arctic and the organization of the Partnership Conference
- to establish adequate channels of communication with the PAME secretariat and individual countries in order to provide information on the implementation of the Russian NPA-Arctic and Partnership Conference

As an organization:

Upon the formal adoption of the Russian NPA-Arctic and the partnership process by the Russian Federation, PAME will in coordination with the Russian Federation and ACOPS:

- serve as an advisory body to the partnership process for the purpose of facilitating participation by all relevant stakeholders, including inter alia the private sector, NGO's, national foreign assistance and technical agencies, native groups, and industry and professional organizations, other Arctic Council working Groups and Observing States. This will require 2 - 3 meetings of PAME of at least one day in duration as well as meetings with potential partners.

2001 - 2002

In a coordinated manner, but on an individual State basis, participate in the partnership conference.

As an organization and in its capacity as an advisory body to the process, facilitate the maximum possible participation of stakeholders in the partnership conference.

RPA Program Support Elements-Clearing House

1. Section 7.1 of the RPA identifies the following as a priority action:

“Actively supporting participation of relevant UN agencies in GPA clearing house”

Proposed implementation: In a coordinated manner, but acting on an individual state basis, take measures to encourage relevant UN agencies to support the GPA clearing house.

2. Section 7.1 of the RPA identifies the following as a priority action:

“Defining user needs and identifying potential information providers”

Proposed implementation: The PAME Secretariat will undertake consultations, literature search and prepare a report on user needs and potential information providers for PAME Working Group consideration.

Mining Guidelines

Objective: To develop and adopt Arctic-wide environmental guidelines on opening, operating and closing mines in the Arctic coastal zone. Mining is defined as the extraction, milling and concentration of ore.

Background: The 1996 PAME Working Group Report indicates that active mining in the Arctic occurs in Canada, Norway, the Russian Federation and Sweden. In addition, three closed mines in Greenland have the potential to release heavy metals into the marine environment. The present state of knowledge with respect to mining activities indicates that there are problem areas.

In most cases the heavy metal problems associated with mining are either operational or related to the abandonment and restoration of the property.

- i) **Operational Problems:** These can include effluent quality discharge problems, acid mine generation, hazardous waste discharges, poor handling practices and geo-technical problems.
- ii) **Abandonment and Restoration Problems:** Until recently, when countries have been developing and enforcing proper A&R of mines, abandonment was generally the case where operators simply removed valuable assets and left the properties. This resulted in both short and long-term discharges of contaminants into the aquatic environment. Typical problems include acid rock drainage, untreated and uncontrolled discharges from tailing areas, waste rock piles, ore storage areas and mine/mill sites.

The environmental problems associated with these mines are especially of concern because of their effects on the sensitive northern ecosystem and the long retention times due to the climate and other factors.

While it is an easy assumption to lay the problem at the operation or closure stage it is more prudent to look at the project planning and development stage. By the time the project has been constructed, commissioned or abandoned, in many cases, it will be realized that problems are the result of poor decisions made at the planning stage. Examples include acid rock generation due to poor management, failures due to inadequate geo-technical evaluation, drainage problems, permafrost damage, water balance problems, etc.

1. Significant anthropogenic inputs of metals are detectable against the highly variable natural background on local scales, commonly in the order of tens of kilometers or less.
2. The most important metals in the Arctic biosphere are Cd and Hg because they occur in some biota at concentrations that may have health implications for individual animals or may have implications for human consumers.
3. Near point sources such as mine sites and some Russian estuaries, heavy metals exceed background levels up to 30 kilometers from the source.
4. Riverine transport of heavy metals toward the Arctic Basin is approximately half the atmospheric contribution for metals like Cd and Pb, while for others such as Zn the rivers are more important, carrying five times the atmospheric load.
5. Cd levels in marine organisms from large parts of the Arctic exceed global background and the limits proposed by the Nordic Council of Ministers for concentrations in kidney, liver and muscle tissue. In almost all cases, Pb levels in marine organisms are well below food standard limits except for hot spot areas such as mining areas and some Russian estuaries.

Draft Working Definitions for the Coastal Zone

The following draft working definitions are provided to assist PAME in identifying the impacted areas of concern in implementation of the RPA. Their purpose is not to suggest that Arctic Council activities which may ameliorate environmental conditions in the area defined would come solely within the purview of PAME. To the contrary, the purpose is to clarify PAME's work and to facilitate contributions from other Arctic Council activities to help implement the RPA.

Draft Working Definitions

- (A) There is consensus that the term "coastal" conveys the notion of a land-sea interface. This interface has two axes - one axis is parallel to the shore (longshore), and the other axis is perpendicular to the shore (on/off-shore). For the longshore axis, relatively little controversy arises about the definition since it does not typically cross environmental systems boundaries, with the exception of watersheds. In contrast, there is considerable discussion about the on/off-shore axis. For example, the inland definitions of the coastal zone range from those that include entire watersheds to those that comprise only the immediate strip of shoreline adjacent to the coast. The seaward limit can extend as far as the maximum reach of a country's jurisdiction (i.e. the 200 nautical mile limit). This makes it difficult for scientists who want to establish a precisely defined area for ecological analysis, as well as administrators/managers who feel more comfortable working within well-defined legal boundaries.

What constitutes the coastal zone depends upon the purpose at hand. From both the functional and scientific viewpoints, the extent of the zone will vary according to the nature of the problem. The boundaries of the coastal zone should extend as far inland and as far seaward as necessary to achieve the objectives of management.

There are, however, strong reasons to suggest that as a general rule coastal zone management should be based upon an ecosystem approach. Such an approach implies that the on/off-shore axis should cover part of the hinterland and include "the associated aquatic ecosystems and those portions of tributaries draining into the estuary up to the historic height of migration of fish to spawn or the historic

head of tidal influence, whichever is higher” (Hildebrand, 1989; see also USEPA, 1988).

- (B) The marine and coastal environment includes all water seaward of the high water mark and adjacent shorelands strongly influenced by each other and in proximity to the shorelands, including islands, transitional and intertidal areas, salt marches, wetlands and beaches. The coastal environment extends inland from the shorelines only to the extent needed to manage shorelands, the uses of which have a direct and significant impact on the marine environment and to control those geographical areas which are likely to be affected by or vulnerable to sea level rise.

Overview of PAME Workplans

1999

Establish Secretariat in May	(Iceland)
Clearing House Development	(all)
Review E&P/ IUCN Offshore Guidelines by May 15	(all)
Revise Mining Guideline Proposal	(Canada)
Establish Correspondence Group on Shipping	(Norway)
Finalize Russian NPA Arctic	(Russia)
Support for Russian NPA-Arctic and Partnership Conference	(all)
Review Operating Guidelines	(all)
Co-sponsor IUCN Marine Workshop in September	(PAME/CAFF/IUCN)
Report to CSD	(Canada)

2000

- Define Coastal Area
- Respond to Marine Workshop Recommendations
- Preparatory Meeting on Partnership Conference
- Identify Lead for Analysis of International Agreements and Arrangements
- Complete Shipping Analysis
- Consider Indicators for Guideline Effectiveness
- Progress Reports to Ministers on:
 - RPA, Russian NPA-Arctic, Partnership Conference
 - Shipping analysis
 - meeting goals and objectives of offshore guidelines
 - status of agreements and additional instruments

2001

Hold Partnership Conference

Collate Shipping Proposals

Collate proposed amendments to PAME Offshore Guidelines

Respond to additional RPA Proposals

Complete update on marine pollution sources

2002

Complete Analysis of International Agreements and Arrangements

Provide recommendations on:

- adequacy of international agreements and arrangements
- possible new shipping measures
- possible amendments to offshore oil and gas guidelines
- possible new measures for land-based activities

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