



PAME-LED GROUP OF EXPERTS ON THE ECOSYSTEM APPROACH TO MANAGEMENT

TERMS OF REFERENCE AND WORKPLAN
2011 - 2013



ARCTIC COUNCIL

PAME-led Group of Experts on the Ecosystem Approach to Management

Terms of Reference and Work Plan 2011-2013

Table of Contents

| | |
|--|----------|
| BACKGROUND | 1 |
| ROLE OF THE EA GROUP OF EXPERTS..... | 1 |
| MEMBERS OF THE EA GROUP OF EXPERTS | 1 |
| EA TASKS FROM THE PAME WORK PLAN 2011 - 2013..... | 1 |
| COMPLETE THE REVISION OF THE WORKING MAP OF ARCTIC LMEs FOR CONSIDERATION AT PAME II-2011. ... | 2 |
| PREPARE AN INVENTORY OF EXISTING OR PLANNED REPORTS RELEVANT TO ECOSYSTEM STATUS REPORTING BASED ON THE INFORMATION COMPILED AT THE WORKSHOP AND ADDITIONAL INFORMATION SUPPLIED BY MEMBERS OF THE EXPERT GROUP. | 2 |
| FURTHER DEVELOPMENT OF ECOSYSTEM STATUS REPORTS AND INTEGRATION OF MONITORING AND ASSESSMENT (ITEMS III AND IV)..... | 2 |
| REVIEW METHODS AND PROGRESS IN DETERMINING ECOLOGICAL OBJECTIVES FOR SPECIES AND HABITATS THAT CAN SERVE AS A PART OF THE MANAGEMENT OBJECTIVES FOR THE ECOSYSTEM APPROACH TO MANAGEMENT OF ARCTIC LMEs (ITEM V) | 3 |
| REVIEW OF THE ARCTIC MARINE STRATEGIC PLAN (ITEM VI) | 3 |
| TAKING INTO ACCOUNT PREVIOUS AND ONGOING WORK BY ARCTIC COUNCIL WORKING GROUPS | 4 |
| EA CONCEPT PAPER | 4 |
| TIMEFRAME | 4 |
| PLANNED EA WORKSHOP MARCH 2012 | 4 |
| PROGRESS REPORT TO PAME I-2012 | 4 |
| ANNEX I - NOMINATED EXPERTS BY MEMBER STATES, PPS AND WORKING GROUPS 2011- 2013 | 5 |

Background

There is an increased emphasis on the ecosystem approach to management (including integrated ocean management) as the foundation of the Arctic Councils' work, and the essential need to apply the ecosystem approach to manage Arctic marine-related issues has been recognized. In 2002, the Arctic Council agreed "to develop a strategic plan for the protection of the Arctic marine environment under the leadership of PAME". This plan, the Arctic Marine Strategic Plan (AMSP) was adopted by Arctic Council Ministers in 2004. One of the items of the plan was to identify the Large Marine Ecosystems (LMEs) of the Arctic, and PAME developed a working map of 17 Arctic LMEs that was adopted by Ministers in 2006. PAME established an Ecosystem Approach Experts Group in 2007 to deal with issues related to the implementation of the EA based on the identified LMEs.

The Workshop on Ecosystem Approach (EA) in Tromsø 22-23 January 2011 (with participation both from AMAP and CAFF) suggested broadening the scope and membership of the EA expert group by inviting the other Arctic Council working groups to take part in the work. PAME agreed to this suggestion ("*...agreed to invite all Arctic Council working groups working on marine-related issues to participate in the PAME led EA Expert Group on the ecosystem approach to management according to its terms of reference*"). AMAP and CAFF (and SDWG?) responded positively to take part in a joint expert group. Now the PAME-led Group of Experts on the Ecosystem Approach to Management has been expanded to include nominated experts from the other relevant working groups.

Role of the EA Group of Experts

The EA expert group will consider scientific and technical aspects related to the implementation of the EA to the management of the Arctic LMEs. These include the elements of monitoring, integrated ecosystem assessment, and setting ecological objectives as part of the EA. The expert group will consider the issue of linking the specific ecosystem (LME) scale with the wider pan-Arctic (and global) scale(s). It will also contribute to the revision of the Arctic Marine Strategic Plan (AMSP).

Members of the EA Group of Experts

A list of nominated members of the expert group as compiled by the PAME secretariat is attached in Annex I.

EA Tasks from the PAME Work Plan 2011 - 2013

- (i) Complete the revision of the working map of Arctic LMEs for consideration at PAME II-2011.
- (ii) Prepare an inventory of existing or planned reports relevant to ecosystem status reporting based on the information compiled at the workshop and additional information supplied by members of the expert group.
- (iii) Plan the further development of ecosystem status reports for the various LMEs.
- (iv) Identify possible arrangements for cost-effective integration of monitoring and assessment that draw upon existing national and international programs (e.g. by AMAP and CAFF) and form an integral component of the ecosystem approach to management of the Arctic LMEs.
- (v) Review methods and progress in determining ecological objectives for species and habitats that can serve as a part of the management objectives for the ecosystem approach to management of Arctic LMEs.

(vi) Contribute input to the development of the updating of the Arctic Marine Strategic Plan (AMSP 2004) Phase I (2011-2013) scoping process. The delivery from AMSP Phase I should include a suggested outline for a future AMSP to be submitted to the respective working groups for consideration.

Complete the revision of the working map of Arctic LMEs for consideration at PAME II-2011.

The Tromsø workshop produced a version of the working map of Arctic LMEs under revision with suggested changes or options for changes of LME boundaries shown (Fig. 5 on page 10 in the workshop report). It was recognized that further consultations with national experts were needed before conclusions could be reached.

The aim is to complete the revision in time for the PAME spring 2012 meeting. The revised map will be accompanied by a text that gives the explanation and justification of each of the boundaries. This explanatory text will build from the information in the Tromsø workshop report (including the annotations to the agenda) as well as information in the Oil and Gas Assessment Chapter 6 that is now being readied for publication.

Prepare an inventory of existing or planned reports relevant to ecosystem status reporting based on the information compiled at the workshop and additional information supplied by members of the expert group.

The aim has been to compile information on existing or planned reports relevant to ecosystem status reporting. Regular reporting on the status and trends (including pressures from human activities) is seen as an important component of an ecosystem approach to management (EA). This may include more narrow and thematic reports such as on the climatic conditions, plankton and plankton productivity, and population status of fish, birds and mammals. It also includes broader and more integrated reports on many components of the ecosystem and the influences and impacts by human activities such as fishing, harvesting, and industrial activities on the status of species and habitats in the ecosystem.

The Tromsø workshop provides a first compilation of information on such reports prepared in international frameworks or nationally, where they are often linked to management systems. The aim is to develop this into an inventory by LMEs (or groups of LMEs) with links to the reports where such are available. The inventory will be hosted at the PAME webpage.

Members of the EA expert group, PAME representatives and others are asked to provide more information on status reports to allow updating of the inventory.

Further development of ecosystem status reports and integration of monitoring and assessment (items iii and iv)

The existing or planned ecosystem status reports (including reports on ecosystem components such as status for bird or mammal populations) can form a basis for the further development into more integrated ecosystem status or assessment reports. Such development should be linked to, and be an integral part of, the implementation of the EA for each of the LMEs. Examples of reports of this type are the 'Joint Norwegian-Russian environmental status 2008 Report on the Barents Sea Ecosystem' and the 'Beaufort Sea Large Ocean Management Area: Ecosystem Overview and Assessment Report' (see the Tromsø workshop report for more details).

The aim is not for the EA expert group to develop integrated ecosystem status reports. Rather, the objective is to facilitate exchange of information on the development of ecosystem status reports between different Arctic regions. Possibly a review of the state-of-the-art could be carried out including some general guidance based on the practical experiences that can be extracted from such a review. This could build-on from the 'Assessment of assessments' that was carried out a few years ago. The International Council for Exploration of the Sea (ICES), where all Arctic countries are members, could possibly be consulted or involved in providing a review and guidance on best practices. ICES has established a working group on LMEs (Working Group on Large Marine Ecosystems Best Practices (WGLMEBP)) which could potentially be a partner in this work.

Monitoring is necessary to provide updated information for assessments. There is much monitoring ongoing both nationally and internationally coordinated. Item iv on the work plan deals with the further integration of monitoring and assessment to support the implementation of the EA in separate LMEs. There is no specific work started on this item yet but it should be a priority item for the work in 2012. If there is to be a meeting or workshop of the PAME-led expert group (with broadened membership) in the spring next year (back-to-back with the spring meeting of PAME I-2012), the issue of integration of monitoring and assessment could be the main topic for the meeting.

There is a scale-issue related to the topic of monitoring and assessment. There is the specific need for monitoring and assessment as part of the implementation of the EA at the scale of LMEs. At the same time there is a need to aggregate and report on information at the pan-arctic scale. At this scale there is also the aspect of comparing trends and status between different regions of the Arctic. The relationship and balance between emphasis on the LME scale and the pan-Arctic scale is an issue that should be given attention in the revision of the Arctic Marine Strategic Plan (AMSP; Item vi below).

The proposed Arctic Change Assessment (ACA) is an activity where the dual scales of LMEs and the pan-Arctic should be used. Animal populations (fish, birds, mammals) occur at the scale of LMEs (even if some migrate between neighboring systems). Their trophic interactions are key features of the regional ecosystems (LMEs), while they are the biological units that are impacted directly or indirectly by climate change, pollution, harvesting, disturbances and other factors.

Review methods and progress in determining ecological objectives for species and habitats that can serve as a part of the management objectives for the ecosystem approach to management of Arctic LMEs (item v)

The setting of ecological objectives (for species and habitats) is a key component of the implementation of the EA. The aim for this item on the work program is to collect information on management objectives that exist in the various LMEs and to review progress and methodology in developing integrated and coherent sets of ecological objectives as part of the suit of management objectives (including socio-economic aspects) for the EA approach.

The first step should be to compile information on existing management objectives from members of the EA expert group and others.

Review of the Arctic Marine Strategic Plan (item vi)

The PAME led EA Expert Group is asked to contribute input to the development of the AMSP Phase I 2011-2013 scoping process.

Taking into account previous and ongoing work by Arctic Council working groups

There are many elements and products of previous and ongoing work of Arctic Council working groups that are relevant for the work of the EA expert group. Such work include :

- ✓ AMAP Oil and Gas Assessment (2008-2012), Volume 3 - Status and vulnerability of Arctic Ecosystems (using the 17 Arctic LMEs as units for ecosystem summaries)
- ✓ CAFF Circumpolar Biodiversity Monitoring Program
- ✓ CAFF Arctic Biodiversity Assessment
- ✓ SDWG/PAME Best Practices in Ecosystem-based Oceans Management in the Arctic (BEPOMAR)
- ✓ PAME Arctic Ocean Review
- ✓ PAME Arctic Marine Strategic Plan
- ✓ The new ACA which is under consideration and development
- ✓ SAON - the Sustained Arctic Observation Network

EA Concept paper

At the PAME II-2011 meeting it was agreed that Norway as one of the EA co-leads (Norway and USA) was to prepare a concept paper that summarizes previous discussions and agreements on concepts and terminology related to ecosystem approach to management. A draft version of this paper will be circulated for discussion within the Ecosystem Approach Expert Group before it is forwarded to the PAME I-2012 meeting.

Clarify the relationship to the new Arctic Council Expert Group on EBM

In the Nuuk Declaration from the 7th Ministerial Meeting of the Arctic Council in May 2011, the ministers decided to establish an expert group on Arctic ecosystem-based management (EBM) for the Arctic environment to recommend further activities in this field for possible consideration by the SAOs before the end of the Swedish chairmanship. There is a need to clarify how the work of the PAME-led EA expert group can complement (and not duplicate) and support the work of the new Arctic Council expert group.

Timeframe

Conference calls with the EA Expert Group members to review and agree to the work plan and prepare an EA Workshop (February-March 2012)

Planned EA Workshop March 2012

The co-leads, in cooperation with the PAME-led EA Expert Group, to convene a workshop back-to-back with the next PAME meeting to include the following main agenda items:

- ✓ Facilitate exchange of information on the development of ecosystem status reports.
- ✓ Identify possible arrangements and integration of monitoring and assessment.
- ✓ Identify possible elements to the development of the AMSP Phase I 2011-2013 scoping process.

Progress report to PAME I-2012

A progress report will be prepared and presented to the PAME I-2012 meeting which is now scheduled for 26-27 March in Stockholm. This will contain an updated work plan based on the discussions in the EA expert group.

Annex I - Nominated experts by Member States, PPs and working groups 2011-2013

| PAME-led Ecosystem Approach (EA) Expert Group | |
|---|---|
| Canada | <p>Cc. Renee Sauve Renee.Sauve@dfo-mpo.gc.ca</p> <p>Robin Kipping Robin.Kipping@dfo-mpo.gc.ca</p> |
| Denmark Greenland Faroe Islands | <p>Jóhanna Olsen johanno@us.fo</p> <p>Esben Tind estin@nst.dk</p> <p>Cc. Ditte Mandøe Andreassen diman@nst.dk</p> |
| Finland | Hermanni Kaartokallio Finnish Environment Institute hermanni.kaartokallio@ymparisto.fi |
| Iceland | <p>Cc. Sesselja Bjarnadottir Sesselja.bjarnadottir@umh.stjr.is</p> |
| Norway | <p>Hein Rune Skjoldal hein.rune.skjoldal@imr.no</p> <p>Cecile von Quillfeldt quillfeldt@npolar.no</p> <p>Cc. Barbro Thomsen barbro.thomsen@klif.no</p> <p>Cc. Anja Elisenberg Anja.Elisenberg@md.dep.no</p> |
| Russia | <p>Dr. Aleksander Bagin abagin@hse.ru</p> <p>Professor Gennady G. Matishov Director Murmansk Marine Biological Institute of the Russian Academy of Sciences (MMBI RAS) icd@mmbi.info</p> |
| Sweden | Patrik Brodd Ministry of Environment Patrik.brodd@environment.ministry.se |
| USA | Phil Mundy phil.mundy@noaa.gov |
| Working Groups | <p>AMAP: Lars Otto Reiersen lars-otto.reiersen@amap.no</p> <p>CAFF: Tom Barry tom@caff.is</p> |
| Permanent Participants | AIA: Jim Gamble aia@alaska.net |

| | |
|--|---|
| | <p>GCI: Victoria Lorraine Peter (no email address but Chief Joe Linklater is also a regular participant Email: jlinklater@vgfn.net)</p> <p>ICC: James Stotts, Chair jimmy@iccalaska.org</p> <p>Saami Council (SC): Gunn-Britt Retter gbr@saamicouncil.net</p> <p>IPS: ips@arcticpeoples.org</p> <p><u>Cc for information sharing (AAC)</u></p> <p>Cindy Dickson (AAC) cindy.dickson@cyfn.net</p> <p>Colleen Henry (AAC) Colleen.Henry@cyfn.net</p> <p>Terry Fenge (AAC) Ttfenge7006@rogers.com</p> |
|--|---|