



**Progress Report to
PAME II-2012 meeting
Group of Experts on the Ecosystem
Approach to Management
17 September 2012**

PAME
Protection of the Arctic Marine Environment

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Progress report to PAME II-2012

Norway and USA are co-lead countries for the theme *Ecosystem Approach to management* (EA) under PAME. The work is carried out by an Expert Group according to a work plan as part of the agreed PAME Work Plan 2011-2013. The work plan is included as Annex 1.

At the PAME meeting in September 2011 (PAME II-2011) it was agreed in the Record of Decisions (RoDs) from the meeting that Norway would produce a 'concept paper' on concepts and terminology related to ecosystem approach to management for discussion within the Ecosystem Approach Expert Group. The concept paper would be used as basis for a short-version 'brochure' on the essentials of EA (see Annex 2).

The co-leads presented a progress report to PAME I-2012 held in Stockholm, 26-27 March 2012. The Record of Decision on the agenda item on Ecosystem Approach from PAME I-2012 is included in Annex 2.

The work on the EA issue has followed the agreed work plan (2011-2013) and the additional elements agreed by PAME as reflected in the Records of Decisions (RoDs) from the last two PAME meetings (see Annexes 1 and 2). However, we are delayed on several of the deliverables that were to be presented to this meeting of PAME for consideration. This is the case for the revised LME map, concept paper on EA, and the EA brochure.

Information on the progress and status of the various elements of the work plan is given in the following.

EA concept paper and brochure

A Draft Concept paper (version 20 March 2012) was prepared earlier this year and circulated to participants of the EA Workshop in Stockholm (22-23 March) and to the members of the EA Expert Group requesting comments by 1 May (this deadline was extended). Comments were received from Canada and Norway, and comments are forthcoming from the US.

The Draft Concept paper will be updated and completed and sent around to the members of the EA EG for a final round of comments by the end of this year. A Final draft will be forwarded to PAME I/2013 for consideration and approval.

Shortly after the PAME I/2012 meeting, the Draft Concept paper was sent to the members of the EbM experts group for their use. Hein Rune Skjoldal attended the EbM expert workshop in Gothenburg 16-18 April 2012 and gave a presentation on the main content of the concept paper. The Draft Concept paper has also been used as a source of information in the drafting of Chapter 2 (on EbM or EA) of the AOR (Arctic Ocean Review) Phase II report.

Work on the brochure has started and will be one item for discussion at the EA break-out session at this PAME meeting. The plan is to emphasize the following key elements

- ✓ EA is an approach to management and means integrated management of human activities
- ✓ It focuses on the state of the ecosystem which is to be good
- ✓ The state must be assessed in terms of status, trends and impacts, including cumulative effects of all pressures and impacts - this is the topic of integrated assessment
- ✓ The state must be defined in terms of ecological and management objectives
- ✓ EA is applied to defined ecosystems - only then can we meaningfully deal with their functional integrity (and resilience) - and we have them defined as LMEs

- ✓ EA is executed within a framework with 6 main components (define, describe, set objectives, assess, value, manage)
- ✓ Best use of the best available science, and scientific integrity

Revision of LME map

There have been two meetings where boundary issues were discussed with national experts:

- ✓ Rostov-on-Don, Russia, 18-19 August 2011 - discussions on boundaries in the Russian Arctic.
- ✓ Seattle, USA, 3 February 2012 - discussions on boundaries between the Bering and Chukchi seas LMEs

Reports from these meetings were presented to the PAME II-2011 and PAME I-2012 meetings and are contained in the EA Progress Reports to those meetings.

The outcomes from the two meetings have been used in preparing the revised map of the 17 LMEs shown in Fig. 1 along with some other adjustments suggested from the EA Workshop in Tromsø, Norway, 22-23 January 2011 (<http://www.pame.is/reports>)

There are some outstanding boundary issues which require some further consultation with national experts. These are:

- ✓ Boundaries of the Faroe Plateau LME
- ✓ Boundaries of the Canadian Arctic Archipelago LME
 - to the Baffin Bay-Davis Strait LME
 - to the Greenland Sea LME
 - to the Beaufort Sea LME
- ✓ Boundaries between the East and West Bering Sea LMEs
- ✓ Boundaries of the Norwegian Sea LME
 - to the Iceland Sea and Shelf LME and Greenland Sea-E Greenland Shelf LME
 - to the Barents Sea LME

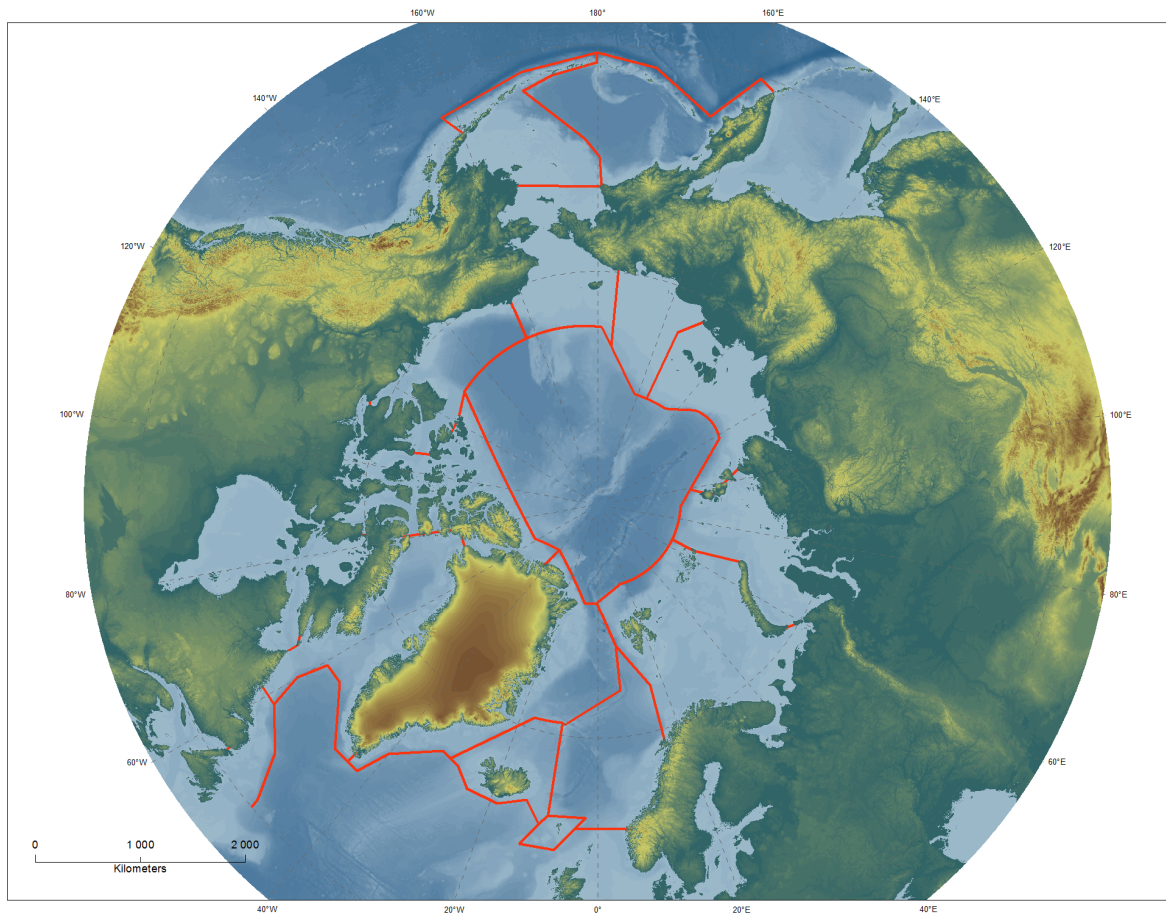


Fig. 1. Revised map of 17 Arctic LMEs - version 16 September 2012.

These further consultations on remaining boundary issues will be carried out over the next 2.5 months with the aim to have a final revised draft map by mid December. The draft map will be part of a report where the rationales for each of the suggested boundaries are explained in terms of the ecological conditions and criteria.

The draft Arctic LME report should be sent for review to the EA EG and PAME representative for a round of national comments that should be sent back by late January. An updated final version of the LME report with the revised map of the 17 Arctic LMEs will then be prepared and forwarded to PAME I-2013 for consideration and approval.

EA Workshop, Stockholm, 22-23 March 2012

A second EA workshop was held in Stockholm, Sweden, on 22-23 March 2012, prior to the PAME I-2012 meeting. The main topic of the workshop was the issue of ***integrated assessment*** as a core component of the EA to management. The workshop was attended by 25 participants.

The report from the workshop is found at: <http://www.pame.is/reports>

The main outcomes from the workshop were reported to the PAME I-2012 meeting. As reflected in the RoDs from the meeting (see Annex 2), PAME agreed to use of the identified LMEs as primary units for applying the EA in the Arctic.

The Meeting supported that the LME should be pursued as the appropriate and primary unit for applying the ecosystem approach to management of the marine environment recognizing that it accommodates management at other spatial scales.

In relation to the conduct of integrated assessments (for the purpose of forming the basis for management decisions) as part of the EA, the workshop recognized the importance of a number of data issues, such as availability, accessibility, quality, and management. It was therefore agreed that a next expert EA workshop should be held in early 2013 to discuss data management, availability, integration, and communications as essential to implement the ecosystem approach to management. The planning of this workshop will be done in close contact with the secretariats of AMAP and CAFF since these two working groups are strongly involved in monitoring and assessment.

This new planned 3rd EA workshop will address (at least partly) the following item on the 2011-2013 work plan:

(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.

Inventory of status reports

This item was started at the EA workshop in Tromsø in January 2011 where information was collected and compiled in the workshop report. EG members have been requested to submit information on new or updated status report for species, habitats, or more integrated for ecosystems. The PAME secretariat will prepare an inventory of reports with links to where the reports can be found where appropriate.

The item on the work plan to '***plan further development of status reports***' (see Annex 1) has not received any specific action. This item is related to the issue of integrated assessment and may be dealt with following the next workshop on data issues.

Revision of the AMSP

PAME prepared an Arctic Marine Strategic Plan (AMSP) adopted by the Arctic Council in 2004. The AMSP had the EA as a key principle and the best approach to managing the Arctic marine environment to achieve the identified objectives. The EA EG has been tasked to contribute input to the development of the Arctic Marine Strategic Plan (AMSP) Phase I 2011-2013 scoping process (see Annex 1).

Input to the scoping process was one of the items considered at the Stockholm workshop.

Ecological objectives

This item on the work plan has not yet been started. The plan is to start compiling information on existing ecological and management objectives early in 2013, to be followed by a review of methods and progress in determining ecological objectives for species and habitats.

Annex 1 - From PAME Work Plan 2011 - 2013

Actions	Activities	Lead(s)
<p>2) Update the status of the Arctic Marine Strategic Plan (AMSP 2004)</p>	<p>Phase I (2011-2013):</p> <p>The PAME led EA Expert Group to contribute input to the development of the AMSP 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.</p> <p>Refer to Annex 6 for the work plan on updating AMSP</p>	<p>Norway US</p>
<p>3) Ecosystem approach to management (7.4 in the AMSP)</p>	<p>(i) Complete the revision of the working map of Arctic LMEs for consideration at PAME II-2011.</p> <p>(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.</p> <p>(iii) Plan the further development of ecosystem status reports for the various LMEs.</p> <p>(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.</p> <p>(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.</p> <p>(vi) Refer to AMSP action Item 2) above.</p>	<p>Norway US</p>

Annex 2 – Record of Decisions on EA from PAME II-2011 and PAME I-2012

PAME II-2011 (21-23 September 2011) EA RoDs

- ✓ *Norway as one of the EA co-leads (Norway and USA) to prepare a concept paper that summarizes previous discussions and agreements on concepts and terminology related to ecosystem approach to management for discussion within the Ecosystem Approach Expert Group for submission to the PAME I-2012 meeting.*
- ✓ *The concept paper will be used to prepare a short brochure on the EA. Draft will be submitted for consideration and agreement at the PAME I-2012 meeting.*

PAME I-2012 (Stockholm, 26-27 March 2012) EA RoDs

- ✓ *The Meeting welcomed the summary of the main points highlighted from the Workshop on Ecosystem Approach to Management (EA Workshop) that took place in Stockholm 22-23 March and look forward to receiving the final EA Workshop Report.*
- ✓ *The Meeting agreed to revised Terms of Reference and the work plan of the new PAME-led EA Expert Group to reflect its expansion and 2011-2013 work plan items, taking into account the Arctic Council Ecosystem Expert group activities (as a separate document)*
- ✓ *The Meeting noted that the draft concept paper has been developed (version 20 March 2012) and agreed to circulate it to the EA Workshop participants and EA Expert Group members for comments by 1st of May 2012. Updated version of the concept paper to be presented to PAME II-2012 meeting for approval.*
- ✓ *The Meeting agreed that the draft concept paper will be forwarded to the Arctic Council EbM expert group for their use.*
- ✓ *The Meeting agreed that the draft concept paper will be used to prepare a short brochure on the EA. Draft brochure will be submitted for consideration and agreement at the PAME II-2012 meeting.*
- ✓ *The Meeting requested the co-leads to submit the revised LME map and supporting text to the PAME II-2012 meeting.*
- ✓ *The Meeting noted that an expert workshop will be held in Fall 2012 to discuss data management, availability, integration, and communications as essential to implement the ecosystem approach to management.*
- ✓ *The Meeting supported that the LME should be pursued as the appropriate and primary unit for applying the ecosystem approach to management of the marine environment recognizing that it accommodates management at other spatial scales.*