The Arctic

- The Arctic Ocean a semi-enclosed ocean and its marginal seas (the Chukchi, East Siberian, Laptev, Kara, Barents, White, Greenland, and Beaufort)

- Global significance
  - more than a quarter of the world's undiscovered oil and gas resources
  - More than 40% of global commercial fisheries
  - Survival of Indigenous Peoples cultures

- Changes in the climate
  - Consequences of melting sea ice for shipping, offshore oil and gas, coastal zones etc
PAME Work Plan 2006-2008

- Implementation of the Arctic Marine Strategic Plan (2004) that outlines the overall direction of the Arctic Council for the protection of the Arctic marine environment.
- Priorities of the Norwegian Chairmanship
  - Resource management and climate change
- Ocean focus of the Arctic Council
  - the Arctic Marine Shipping Assessment (AMSA)
  - the Regional Program of Action for the Protection of the Arctic Marine Environment from Land-based Activities (RPA-Arctic)
  - the Ecosystem Approach (Large Marine Ecosystems)
  - Update of Offshore Oil and Gas Guidelines
  - Joint PAME/SDWG Integrated Ocean Management (IOM) Project
<table>
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<tr>
<th>PAME Work Plan Actions</th>
<th>Work Plan Items from AC Working Groups</th>
<th>The Programme for the Norwegian chairmanship</th>
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<td><strong>Objective I: Improve knowledge and respond to emerging knowledge of the Arctic marine environment</strong></td>
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<td>1. Conduct a comprehensive circumpolar assessment of current and future Arctic shipping including economic, social and environmental impacts (AMSA) Final report from this assessment will be presented to the 6th Arctic Council Ministerial in Autumn 2008 <em>(From sections 7.1.4; 7.2.2 and 7.2.6 in the AMSP)</em></td>
<td>AMAP: Coordinate GIS related activities with other WGs. CAFF: Contribute to the PAME Arctic Marine Shipping Assessment. <em>Lead: To be determined</em> EPPR: Interactive Maps and Environmental Information from Arctic Council Programmes on the Web <em>(proposed project)</em> SDWG: Contributions to the Arctic Shipping Assessment</td>
<td>Thene II: Climate Change. “During the Norwegian chairmanship, priority will be given to initiating new studies and assessments to fill knowledge gaps in the following priority areas” Arctic Marine Shipping Assessment (AMSA) – ACIA Key Finding #6 directly related to AMSA “Reduced sea ice is very likely to increase marine transport and access to resources”</td>
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<td>1. Continue to respond to the Arctic Climate Impact Assessment (ACIA) taking account of new information on climate change. <em>(From section 7.2.1 in the AMSP)</em></td>
<td>AMAP: Update assessment on climate and contaminants? <em>(tentative delivery to AC in 2010/2012)</em></td>
<td>Thene II: Climate Change.</td>
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<td>1. Responding to the Arctic Council Assessment of Potential Impacts of Oil and Gas Activities in the Arctic.</td>
<td>AMAP: AC Assessment of Oil and Gas Activities in the Arctic – tentative delivery to AC in 2007.</td>
<td>Theme I: Integrated resource management</td>
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<tr>
<td>1. Continue the assessment of existing measures for port reception facilities for ship-generated waste and cargo residues (PRF-Norway) <em>(From sections 7.2.4 and 7.2.6 in the AMSP)</em></td>
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<td>Theme I: Integrated resource management</td>
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<td>Objective II: Determine the adequacy of applicable international/regional commitments and promote their implementation and compliance</td>
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<td><strong>Theme I: Integrated resource management.</strong> “Norway will arrange a conference to further explore integrated resource management and its relevance for the Arctic. One of the main aims of the conference should be to develop a common approach to ecosystem-based management.”</td>
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| 1. Apply the ecosystem approach. This work will be carried out in collaboration with other Arctic Council working groups, in particular AMAP and CAFF. | CAFF: Contribute to the PAME expert group to consider information requirements including suites of indicators of the changing states of Arctic Large Marine Ecosystems (as per AMSP Strategic Actions 7.4.1 and 7.4.2). Lead: To be determined |
| EPPR: Interactive Maps and Environmental Information from Arctic Council Programmes on the Web (proposed project) |
| Thematic Areas for SDWG Projects and Activities: In addition, consistent with the overall work and priorities of the Arctic Council, the SDWG may carry out projects and activities, as approved by SAOs, in the following thematic areas: |
| Natural Resources: Arctic residents fundamentally rely on the sustainable use of marine resources for their health and economic well-being. Increases in shipping, petroleum activities, fishing, as well as external influences such as climate change and variability, require that the management of the ocean environment be based on a holistic perspective. Under the guidance and direction of the SAOs, the SDWG and PAME may jointly consider possible actions, consistent with the Terms of Reference for Sustainable Development Program, the Sustainable Development Framework Document, and the Arctic Marine Strategic Plan to study how the ecosystem approach and sustainable management of natural resources can be effectively implemented. |

| 1. Ecosystem-based management: Norway will invite closer cooperation on developing the following methods and tools that will ensure a sound scientific basis for and a common approach to ecosystem-based management. |
| o Development of guidelines for ecosystem-based management of the marine environment in the Arctic (PRIORITY). |
| o Development of environmental quality objectives and environmental standards. |
| o Development of common criteria for identifying ecologically valuable and vulnerable areas, and areas where there is a high potential for conflict between commercial (petroleum, fisheries, mining), societal and environmental interests. |
| o Strategies for minimising loss of biodiversity and habitat loss and fragmentation. |

| 1. Enhanced knowledge base |
| 2. Mechanisms for cooperation and implementation |
| 3. Regional economic development – implications for settlement patterns |

| 1. Review and update the Regional Programme of Action (RPA) and expand where necessary, taking into account new information since 1997. | AMAP: Produce additional fact sheets reflecting AMAP assessments. AMAP: Updated time trend assessment for POPs and review articles on new contaminants (tentative delivery to AC in 2008) |

| Thene II: Climate Change.: Parts of the update of the RPA with regard to possible additional priority source categories, taking stock of international developments since the inception of the RPA (including ACIA, AHDR, and ACAP activities). |

*(From section 7.3.2 and 7.4.3 in the AMSP)*
Arctic Marine Shipping Assessment (AMSA)

- Canada, Finland and USA as lead countries 2004-2008
- Intense global and regional interest e.g. Climate and energy
- The process is as important as the products
- Countries urged to support AMSA, financially and/or in-kind (experts etc.)
Regional Programme of Action (RPA)

- Canada and Iceland co-leads in updating the RPA (1998)
- 10 years of knowledge – climate, pollution, human health, energy security.
- Work Plan has been developed – substantial work
- Iceland will host a RPA-related workshop parallel to next PAME meeting (September 2007)
Arctic Oil and Gas Guidelines

- Evaluation and Update of the Arctic Offshore Oil and Gas Guidelines (2002)
- Update based on e.g. AMAP Oil and Gas Assessment
- Possibly a follow-up workshop in late 2007 (USA) to begin this process
Ecosystem Approaches

- Foundation of AMSP
- Complex and challenging
- Group of designated experts
- Phased approach
  - Working map of 17 Arctic LMEs
  - Describe LMEs
  - Indicators of change
  - Pilot projects/best practices
Large Marine Ecosystems of the Arctic Region and Linked Watersheds

LARGE MARINE ECOSYSTEMS are areas of the ocean characterized by distinct bathymetry, hydrography, productivity, and trophic interactions. They annually produce 95 percent of the world’s fish catch. They are national and regional focal areas of a global effort to reduce the degradation of linked watersheds, marine resources, and coastal environments from pollution, habitat loss, and over-fishing.

For more information visit: http://www.lme.noaa.gov
Best Practices in Ocean Management

- Joint PAME/SDWG effort - PAME approval of the draft project
- Relevance to the PAME/LME project
- Norway will provide overall project leadership and coordination of a contact group of individuals identified by countries.
- PAME and SDWG will review and approve the project documents including the process timetable, report outline, draft reports and the final report.
Port Reception Facilities (PRF)

- Norway is the lead for the assessment of existing measures for port reception facilities for ship-generated waste and cargo residues
- IMO website with advanced information on PRFs ([www.imo.org](http://www.imo.org) (GISIS))
- PRFs project will not be undertaken during the period 2006-2008
Deliverables to Ministerial

- Arctic Marine Shipping Assessment Report
- Updated Regional Programme of Action
- Status Report on Ecosystem-based approach
- Final PAME/SDWG Report on Best Practices in Arctic Ocean Management
- Updated Offshore Oil and Gas Guidelines?
SAO Assistance/Decisions Required

- Support for AMSA (separate AMSA presentation)
- Support for the RPA (country reports)
- Agenda items at the SAO meeting in Fall 07
  - e.g. direction on AMSA final report scope
  - e.g. direction on linkage between RPA and related AC initiatives
  - Support for PAME Secretariat
THANK YOU!

PAME Homepage: www.pame.is