EPPR Emergency Prevention, Preparedness and Response

SAO

CA0214

Circumpolar Marine Environmental Risk Assessment (CMERA)

1. Background:

One of the recommendations from the RP3 summary report was to conduct a Circumpolar Marine Environment Risk Assessment (CMERA). It was recommended that the Arctic Council (AC) inventory existing risk assessments in the Arctic, identify common elements and environmental differences, as well as methodologies of undertaking these activities, and conduct a circumpolar marine environment risk assessment, if appropriate, in order to better link the sensitivities of the Arctic marine environment with scientific calculations on risks caused by shipping and offshore oil and gas activities in the Arctic Ocean both presently and in the future.
For a start on this project EPPR conducted a workshop in Tromsø, Norway, in November 2013. About 50 participants attended the workshop and there was wide participation from Arctic states, Arctic council working groups, observers and NGOs. In the workshop Arctic states, AC working groups, PPs and others gave information about existing (Marine Environmental Risk Assessments) MERAs. In addition the workshop discussed common elements, methodologies and environmental differences in the Arctic. The planned outcome of the workshop was a draft project plan for a Circumpolar Marine Environment Risk Assessment (CMERA). There were good presentations in the plenary sessions. It was a good discussion and many ideas were raised in the break-out sessions. The consultant DNV facilitated the workshop. Based on the discussions in the break out groups, a report and proposal for further work was prepared.

2. Main findings from the workshop:

In addition to improved charting, there was near-universal agreement that better knowledge-sharing among the Arctic states is critical. Better knowledge-sharing can help technology to advance even more rapidly, as well as avoiding unnecessary duplication of research, thus perhaps getting more from each dollar devoted to emergency-preparedness research.
It was pointed out that a CMERA must give an overall picture of the oil spill risk in the Arctic. The potential risks must be viewable in a GIS-format. The CMERA must give recommendations to the Arctic Council states.
Also discussed in the EPPR workshop was the need to identify a better overview of oil spill response limitations and effectiveness in the circumpolar Arctic. Oil spill response techniques and equipment are limited by a number of environmental Met-Ocean factors such as wind, currents, waves, darkness, ice / icing, etc. In order to have the best possible foundation for decisions regarding the performance and effectiveness of various response techniques (mechanical recovery, chemical dispersion, in-situ burning and remote sensing) in the Arctic, a map-based response gap analysis was suggested.

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3. Project proposal

From the workshop the consultant has proposed two different ways of follow up. These could be taken separately or one by one.

The first proposal is a **Circumpolar Marine Environmental Risk Assessment**, where the important thing is to define the risk drivers, the environmental risk drivers (vulnerability), the climatic risk drivers and the activity-related risk drivers. The deliverables from this study would be:

- By combining seasonal variation in vulnerability and distribution of species with information on ship traffic and existing oil & gas activities, it would be possible to make a GIS-based tool that enables comparisons of the risk levels associated with different activities between regions and seasons in the Arctic. This is important knowledge both for planning operations and mitigation measures, including oil spill response activities.

The second proposal is to do a **Circumpolar Response Gap Analysis**. As discussed in the EPPR workshop in Tromsø, a need for a better overview of oil spill response limitations and effectiveness in the circumpolar Arctic was identified.
The outcome of this analysis will be;

- a circumpolar response gap analysis covering the various oil spill response techniques for the whole Arctic based on input from different national sources. Results could be presented as response gap maps for various seasons/months. One possibility would be to implement a web-GIS interface for easy presentation and communication.

4. Next steps

EPPR will have a full discussion at the EPPR I meeting in June 2014 to define the scope for a possible project and necessary steps forward. The question of funding must be raised at a later stage when the scope is defined. Cooperation with AMAP, CAFF, PAME and the PPs is important.

5. Actions requested

The SAO's are asked take note of the summary from the workshop.