



EMERGENCY PREVENTION,
PREPAREDNESS AND RESPONSE

PAME Working Group Meeting
October 1-4, 2018

TO: PAME
From: EPPR

For Information, comments and invitation to participate

Project: Risk Assessment methods and metadata – development of guideline and tool

1. Project Title

Guideline and tool for Arctic Marine Risk Assessment

2. Project Overview

In all waters, good risk assessments are fundamental for scoping, planning and execution of risk reducing maritime safety and response measures. The quality of a risk assessment depends on the quality and relevance of the input data. This can be particularly challenging in the Arctic where conditions are unique from other waters, for example, harsh and cold climate. This, in turn, increases the need for good risk assessments. To conduct a full risk assessment for the Arctic region, compatible high quality indata from Arctic States would be needed.

The main challenge with existing risk analysis tools is that they are developed for generic conditions and common risk factors found in waters all around the world. It is important to look at how risk tools could be adapted to include the potential risk factors found in Arctic waters and examine how to achieve calculations of “real risk” in the Arctic. Norway believes that it would be beneficial to align the work that is being undertaken on this issue.

The project is based on the conclusions of a scoping workshop held October 31-November 1, 2017 in Ålesund, Norway, as part of the pre-project Risk assessment methods and metadata – exchange of experience and best practice. Based on the workshop findings, and further consultation with EPPR, Norway submitted a full project proposal to EPPR II (Helsinki, June 2018) for approval.

The approved EPPR project takes a stepwise approach to developing a risk assessment guideline and tool. This is in line with the conclusions of the 2017 workshop in Ålesund as well as a previous workshop on CMERA held in Tromsø in November 2013. The overall project objective is to develop guidelines in combination with a practical toolbox that will contribute to further cooperation and alignment of risk



EMERGENCY PREVENTION,
PREPAREDNESS AND RESPONSE

assessment methods and metadata between Arctic States. This approach allows for the involvement from all the Arctic States and other stakeholders which is important for successful alignment and coordination of Arctic marine risk assessments. Input from other initiatives and projects, such as the Open Risk project, would also be beneficial. Ultimately this will also provide as a robust basis for a future Circumpolar Marine Risk Assessment.

The project group will discuss and work on the following task:

- Discuss and possibly agree on an Arctic risk assessment module and set of indata to enhance and coordinate future work on Arctic risk assessments across the Arctic region. The benefits would be to make Arctic risk assessments more comparable and compatible, and also enable usage of data from sources between Arctic States. This would greatly enhance the quality of Arctic risk assessments, and also ease future work with such analyses.
- Discuss and possibly agree on a set of Arctic risk factors that should be included in analyses of the Arctic region. Which causation factors to use for quantitative calculations in risk analyses of the Arctic could also be a topic for discussion. The risk matrix developed during the work with the Polar Code in the IMO could be a good basis for such deliberations. The Polar Code risk matrix lists the most important risk factors specific for the Arctic. Based on that, the project team could look into which factors would be most relevant for nautical risk analyses in the Arctic.
- Develop a guideline for best practice on Arctic marine risk assessment:
 - Create a common approach for conducting qualitative and quantitative Arctic Risk Assessments, enabling comparable assessments.
 - Better understand and communicate the different risks and risk influencing factors associated with marine activities in Arctic.
 - Better foundation and decision making support for establishing optimized risk management strategies
- Develop a toolbox for conducting an Arctic risk assessment. This toolbox should include the best practice document(s) and overview of available data sources, including their accessibility, quality, completeness/coverage, contact persons etc.

3. Lead Organization

The Norwegian Coastal Administration will lead the project for EPPR and welcomes other leads/co-leads for the project.



EMERGENCY PREVENTION,
PREPAREDNESS AND RESPONSE

4. Point of Contact

The Norwegian Coastal Administration
Trine Beate Solevaagseide
Email: trine.solevaagseide@kystverket.no

5. Background Information

This topic was part of the work undertaken by the Arctic Council Task Force on Oil Pollution Prevention and is related to bullet point 3.1.2 in the TFOPP Framework Plan for Cooperation on Prevention of Oil Pollution from Petroleum and Maritime Activities in the Marine Areas of the Arctic:

3.1.2. Enhancing cooperation on maritime risk assessments

- a) Exchange experience and best practices of data collection and analysis for maritime risk assessments
- b) Exchange maritime traffic and environmental sensitivity data and associated methodologies
- c) Explore the possibility of developing a common and publicly accessible database of Arctic maritime traffic and environmental sensitivity data

In addition to follow up of the TFOPP Framework Plan, the results of this work would also be of value for other projects within EPPR and other AC WG's including, EPPR Impact of metocean conditions on oil spill response viability in the Arctic, EPPR Arctic Spill Response Database and the PAME Arctic Ship Traffic Data Project (ASTD).

6. Detailed Description

June 5 th – 7 th 2018	EPPR I-2018: project approved
Q 3 2018	Screening existing methods and data
Q 3 2018	Assessment and identification of Delta Arctic
September 5 th	Webinar: present findings and solicit feedback from subject matter experts
September 25 th	Webinar: Present findings and solicit feedback from subject matter experts
October 8 th	Side meeting to the Arctic Biodiversity Congress (ABC). Information to and input from relevant stakeholders
Q 4 2018	Milestone report
Q 2 2019	Operationalis action
Q 2 2019	Workshop, demo cases
Q 3 2019	Development of best practice, guideline, tools
Q 3 2019	Workshop(s), training
Q 4 2019	Publications



7. Links to EPPR Strategic Plan

Regarding the EPPR Strategic Plan, we refer to the following objectives:

Objective 1: Define the risk of potential environmental emergencies due to commercial activities, nuclear/radiological material, a natural disasters in the Arctic.

To determine the level of preventive and response measures required to reduce risk to an acceptable level, a quantitative determination of the level of risk due to each type of commercial Arctic activity, use of nuclear/radiological material or plausible natural disaster in the Arctic is required. EPPR encourages projects that measure the vulnerability of elements of the Arctic environment to, and the threat from, these events.

Objective 2: Improve prevention measures aimed at reducing accidents which could result in environmental emergencies in the Arctic.

Prevention measures are the most effective way to reduce the risk from environmental disasters in the Arctic, given the paucity of response capacity, infrastructure and manpower available. EPPR conducts projects and consults with Arctic nation governmental agencies, other AC WGs, industry and other international organizations to determine the best practices for preventing accidents resulting in environmental emergencies (...).

Objective 4: Information sharing

Cooperation between Arctic constituencies is critical to reducing the risk of environmental emergencies in the Arctic.

8. Partners

Arctic states, PPs, other AC WGs, NGOs and Observers are considered important partners. The project will also seek cooperation with other projects within the topic of risk assessments such as the Helcom Open Risk Project, PAME's Arctic Ship Traffic Data and others deemed relevant.

9. Expected Duration

July 2018 – December 2019

10. Final Products

The project will develop a guideline for best practice on Arctic marine risk assessments and a toolbox for conducting an Arctic risk assessment. Format is still to be decided.



EMERGENCY PREVENTION,
PREPAREDNESS AND RESPONSE

11. Action Required

PAME is invited to note the information and provide comments and input to the project lead, EPPR Chair and Secretariat. Participation in the project activities is most welcome.