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Background

The HELCOM Contracting Parties and Secretariat were in early 2021 approached by the University of Rostock, Germany, regarding involvement in a project “Update and Recalculation of Oil Spill Contingency Plans, UROSCO”. Invitations to attend a webinar on 14 June 2021 were also circulated to contacts of the Response Working Group by the Secretariat, on behalf of the project team.

The planned objective of the project is to support the update of national contingency plans by i) assessing the latest data to update the risks of marine pollution incidents and vulnerability of Baltic Sea resources, ii) evaluating the existing response options and capacities, and iii) guiding the integration of new knowledge into the national contingency plans by proposing a common updating procedure.

More details can be found in the attached draft work plan, which is still under development and subject to further changes, but nevertheless facilitates an informed consideration of the matter by the Meeting. It is also to be noted that, in case HELCOM involvement in the project is supported, adjustments to the work plan can be proposed to meet identified needs.

Action requested

The Meeting is invited to discuss possible participation by Contracting Parties in a proposal for a full project, discuss the need for HELCOM to potentially join as an associate partner, and to decide as appropriate.

DRAFT Work plan

Objectives and expected outcome of the project

Spills at sea go with the wind and the current. There is a high probability that the spilled substances will cross national borders. In that case, it is necessary for neighbouring states to cooperate to minimize the ecologic, economic, and social impacts of the spill. The Baltic Sea states are required to have national oil spill contingency plans in place, according to the OPRC Convention and HELCOM regulations, in order to be prepared to respond to marine pollution incidents. HELCOM, furthermore, provides manuals to guide the cooperation among the contracting parties in response to marine pollution and there are bilateral and trilateral agreements in place to specify further the cooperation and response. An important part of contingency planning is to exercise and update these plans regularly. However, the updating process may only include an update of the list of contacts and equipment and may not follow a thorough review because of time and resource constraints. Furthermore, there are no official guidelines for performing the update. The UROSCO project aims at providing the time and resources for updating the national contingency plans, based on the latest developments in the field. At the same time, the project will investigate the differences and similarities between the updating processes and propose a common structure for updating the national plans, which will then be tested in the project and refined subsequently. While updating their plans simultaneously, countries can learn from each other and improve their own update process based on the experiences from the other countries.

The UROSCO project is timely as some Baltic Sea countries are in dire need of updating their contingency plan or are about to start the updating process, among others because of the new HELCOM Response Manual. The Manual, adopted in March 2021, now considers response to oil pollution incidents at sea and on shore jointly in one manual. It thus combines the previous Volume 1 (response at sea) and Volume 3 (response on the shore), including a section on oiled wildlife response. The previous Volume 2 (response to HNS) was replaced with the Joint Inter-Regional Marine HNS Response Manual. In response to the updated Manual, there is a need and wish for integrating shoreline and wildlife response, and in some cases also HNS response, into the national contingency plans. Other recent developments in the field that are not yet considered in the national plans include the increasing use of new types of fuel, which may alter risk profiles and response strategies, different methods of calculating response capacities, and the second holistic assessment of the state of the Baltic Sea (in the course of the project, the third holistic assessment will most likely be published). In addition, all Baltic Sea countries should have their maritime spatial plans in place by now according to the EU MSP Directive, which had to be implemented by March 2021. The maritime spatial plans can reveal planned increases in offshore wind development, for example, which may contribute to increased risks.

The objective of UROSCO is to support the update of the national contingency plans by i) assessing the latest data to update the risks of marine pollution incidents and vulnerability of Baltic Sea resources, ii) evaluating the existing response options and capacities, and iii) guiding the integration of new knowledge into the national contingency plans by proposing a common updating procedure.

Concept

- The project will collect, analyse, and synthesize best-practices and lessons-learned from marine pollution accidents in the Baltic Sea and elsewhere as starting point for the contingency plans' update and to increase the knowledge base
- Research will be conducted regarding the most pressing issues in need of an update - Baltic Sea risks and sensitivity as well as evaluation of response options and capacities (to increase knowledge base and inform operational planning)
- The project will discuss and recommend how to integrate the project's results into the national contingency plans. The aim is to reach a common understanding of each other's updating processes and find common grounds for a joint updating procedure that perpetuates when the project ends
- Overall, the project will enhance cooperation and communication among the Baltic Sea authorities responsible for spill contingency planning and will lead to an increased Baltic Sea preparedness and response (Figure 1)

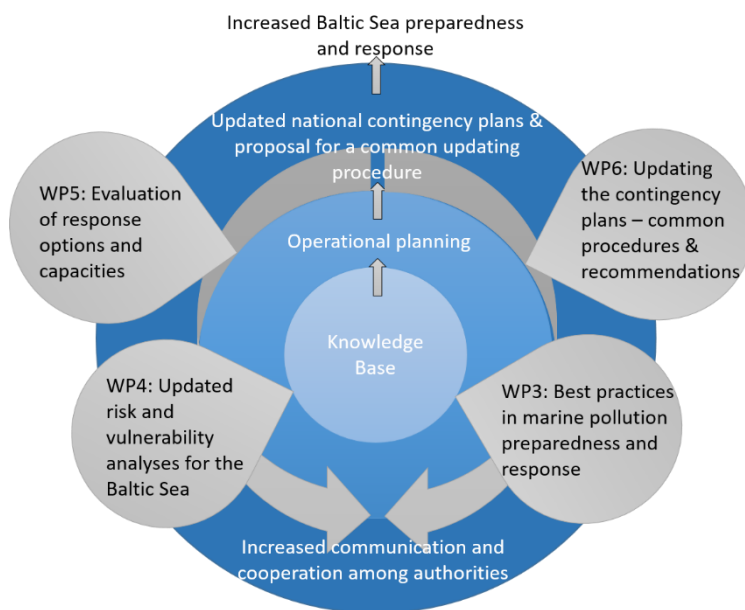


Figure 1: Conceptual approach

Work packages

WP1: Project management and coordination

Objectives

The objectives of this work package are to coordinate and manage the implementation of the UROSCO project according to the work plan and to rules of the funding programme and to communicate and implement potential necessary adjustments to the work plan in dialogue with the funding agency.

T.1.1 Operational project management and ongoing communication

This task includes the management of the overall project and between the work packages to ensure optimum interaction. The responsibilities of the project management includes day-to-day coordination and communication with partners. Management group meetings, consisting of the work package leaders, will be held in connection with the project meetings. The project meetings will ensure the integration across WPs and tasks. Coordination between the project meetings will take place as ad-hoc Skype meetings or tele-conferences within the management group or with specific partners as necessary.

T.1.2 Financial management

Financial management of the project, preparation, implementation and documentation of payments and reporting. The project management will furthermore ensure the prompt distribution of project funds to the consortium partners.

T.1.4 Monitoring and reporting on scientific and financial status

The project management will produce reports on the project progress and the financial status, based on the input from the consortium partners and according to the rules of the funding programme. The funding programme will determine the frequency of the reports.

T.1.5 Implementation of an Advisory Group (AG)

Important stakeholders in the field of marine pollution preparedness and response in the Baltic Sea region will be invited to join the AG. The members will be assigned during the kick-off meeting at the start of the project and may include associated partners.

Potential Deliverables

Scientific and financial reports as required by funding programme

WP2: Dissemination and Communication

Objectives

The WP aims for targeted and interactive dissemination of the results from all WPs. The dissemination strategy will be decided as a united effort at the beginning of the project. To increase the awareness about the project and its main findings, dissemination activities are targeted at the national authorities and the responsible parties for contingency planning at various levels (the BSR, national, regional, and local) as well as to the public. An internal communication plan ensures efficient information exchange between the consortium partners.

T.2.1 Dissemination and communication strategy

The task includes elaboration of a detailed dissemination and internal communication strategy, which will be discussed and agreed upon at the kick-off meeting. The major part of the communication strategy will be a "Contingency Planning Forum", adopted from the Pan Baltic Scope project. The Pan Baltic Scope project initiated the Planning Forum for cooperation and communication among authorities responsible for marine spatial planning in the Baltic Sea. The Forum proved successful in shaping dialogue and discussing common concerns in a more informal setting. The same is envisaged for the UROSCO project. While the HELCOM Response WG is an established cooperation platform (just

as the HELCOM-VASAB MSP WG is for marine spatial planning), the “Contingency Planning Forum” will be a complimentary platform for informal exchange between the national authorities participating in UROSCO.

T.2.2 Citizen Engagement and digital communication

The project outline will be presented to the public on its web page, which will be the main digital platform for information and documentation. A key to successful public dissemination is presence in social media, which will be used throughout the project period.

T.2.3 Communication and engagement with national authorities

This task aims at engaging those authorities that are not part of the UROSCO consortium. National workshops will be organized to disseminate the project’s (intermediate) results and to engage in dialogue with the national authorities. National workshops are deemed necessary and important to reach also authorities, who cannot easily participate in international workshops due to administrative restrictions. A final conference will present the project’s final results.

Potential Deliverables

D.2.1 Dissemination and communication plan

D.2.2 Public information package – brochures, web page, social media presence

D.2.3 Final conference

WP3 tentative title: Best practices in marine pollution preparedness and response

Objectives

An essential part of the Baltic Sea preparedness and response to accidents at sea, including spill of harmful substances, are the national contingency plans (NCPs). However, in order to remain effective, these plans also need to be tested and updated regularly. In the Baltic Sea, there is no uniform way of handling the review and update of NCPs; in fact, the NCPs reveal very little information about the timing, regularity, or triggers for the update. According to guidelines and some national authorities, the national plans are at least reviewed after an accident has happened. However, real incidents are rare in the Baltic Sea and especially so when it comes to incidents involving oiled wildlife, HNS, or new type of fuels. The aim of this work package is gather knowledge, best practices, and lessons-learned from real incidents (and exercises) in the Baltic Sea and elsewhere as a starting point for the national contingency plan updates.

Description of work

T.3.1 Common framework for collection of lessons-learned and best practices

The task will investigate which information is needed regarding lessons-learned and best practices. National workshops with the relevant authorities will be conducted to determine which information is required and to collect information on lessons-learned and best practices. This will be complemented by literature studies on specific topics (T.3.2-T.3.4).

T.3.2 Oiled wildlife response and shoreline coordination

The new HELCOM Manual on cooperation in response to marine pollution now includes a chapter on oiled wildlife response. Ideally, oiled wildlife response should be part of the national contingency plans but this is not always the case. This task will analyse well-known OWR incidents, such as the Bow Jubail accident in Rotterdam harbour, and synthesize lessons-learned. The starting point for the analysis will be the European Oiled Wildlife Assistance (EUROWA) website, which lists real incidents involving OWR. Apart from the response to oiled wildlife, also the coordination at shore will be scrutinized, collecting information on how the coordination was organized and what best practices are for response coordination across administrative boundaries. The task will seek cooperation with the HELCOM OWR Working Group and possibly with the EUROWA network or the NGO Sea Alarm. The results will be input to task 3.5 and WP6.

T.3.3 Oil spill and HNS incidents and response options

This task collects and analyses information about oil spill and HNS incidents, focusing on the type of substance spilled and the taken response actions. Additional information will be collected on other possible response options to HNS incidents. Starting point will be existing databases, such as the one from cedre, ciimar, or cameo. The focus will be on incidents, which encountered similar conditions as can be found in the Baltic Sea. The results will provide input to T.3.5, T.4.3, and WP5.

T.3.4 Alternative fuels and their impacts

Because of new IMO regulations and the efforts to reduce greenhouse gas emissions, there is an increasing use of alternative fuels, including liquefied natural gas, liquefied petroleum gas, methanol, biofuel and hydrogen. In the Baltic Sea, in particular, low sulphur fuel oils are expected to increase because of the establishment of a nitrogen emission control area by the IMO, limiting sulphur content to 0.1%. A literature review will investigate to what extent existing response options can deal with these fuels and if not, what alternative response options are. The review will also include current knowledge of the environmental impacts of the fuels. A gap analysis will be conducted to determine missing knowledge and recommendations for future research. The results will be input to task 3.5, WP5 and WP6.

T.3.5 Collection of lessons-learned and best practices

Based on the format agreed upon in T.3.1, the information on lessons-learned and best practices will be compiled in a database, e.g. in the form of a spreadsheet tool, which can be used by national authorities for an overview of lessons-learned and best practices at one glance. It will be investigated to what extent this database can be hosted by HELCOM, so that it stays available after the project period and will also be updated on a regular basis. The database will provide input to WP5.

Potential Deliverables

D.3.1 Report on gaps and recommendations for future research regarding HNS response options and alternative fuels

D.3.2 Database on real incidents with information targeted at responders

WP4 tentative title: Updated risk and vulnerability analyses for the Baltic Sea

Objectives

Oil spill and marine pollution risk assessments are necessary to develop adequate response strategies and techniques. The last comprehensive risk assessment for the Baltic Sea was carried out for the model year 2008/2009 in the course of the BRISK project. The challenge is that the results of risk assessments are only valid for a limited period along with high costs for carrying out the assessments. Nevertheless, new data, in particular on sensitive Baltic Sea resources, should be included in national risk analyses to support contingency planning. The aim of this work package is to update the existing risk analyses for the Baltic Sea with the latest available data and to produce updated Baltic Sea wide vulnerability maps.

Description of work

T.4.1: Evaluating and updating data for risks of marine pollution incidents

Following the OpenRisk guideline for regional risk management to improve European Pollution Preparedness and Response at Sea, the task will carry out a screening risk management process to evaluate if available new data result in a changed risk picture for the Baltic Sea. The most recent available data on shipping traffic and offshore development projects (e.g. windfarms) will be gathered from data sources, such as the HELCOM AIS data and the countries' maritime spatial plans, which can provide information on planned offshore windfarms. The OpenRisk will be used to identify appropriate methods and tools for updating the risk analysis. The results will be input to T.4.3.

T.4.2: Update of environmental data

Risk analyses should also include the latest data on environmental resources, which could be impacted by marine pollution incidents. The latest holistic assessment of the state of the Baltic Sea will be analysed to identify new knowledge about sensitive resource compartments (at the moment, HOLAS II is the latest assessment but it is expected that HOLAS III will be published in 2022). The results will feed into T.4.4 and T.5.2.

T4.3: Collection and evaluation of spill scenarios

Existing spill scenarios from previous projects will be collected and evaluated with regard to their actuality, taking into account results from T.4.1 and T.4.2 as well as WP3. If needed, the scenarios will be modified according to the updated risk analysis and they will be used as an input to T.4.4 and T.5.2. The impacts of the spilled substances in the scenarios will be analysed using SeaTrackWeb.

T.4.4: Updated vulnerability map for the Baltic Sea

Based on the data gathered in T4.2 and the analysis carried out in T.4.3, it will be analysed to what extent the vulnerability maps prepared by the BRISK project change because of the new data. Updated vulnerability maps will be created as needed.

Potential Deliverables

D.4.1 Report on data used for updating risk and vulnerability analyses

D.4.2 Updated vulnerability map of the Baltic Sea

WP5 tentative title: Evaluation of response options and capacities

Objectives

The aim of this work package is to evaluate if the existing response options and capacities in the Baltic Sea are adequate according to lessons-learned and best practices (WP3) and the updated risk assessment (WP4). It is hypothesized that there is a need for alternative response options and corresponding capacities, and therefore the objective is furthermore to provide recommendations for increasing the response capacities in the Baltic Sea.

Description of work

T.5.1: Evaluating and recalculating existing response capacities

Currently, the preferred response option in the Baltic Sea is mechanical recovery. Some response options, such as sinking agents, are prohibited to use while others, e.g. absorbents or dispersants, are only permitted on a case-by-case basis and with strict limitations. There are different approaches of calculating the mechanical response capacity (e.g. the “Effective Daily Recovery Capacity” (EDRC) and the “Effective Recovery System Potential” (ERSP) calculators). The ERSP calculator is used as a planning tool for mechanical recovery capacity by the US Bureau of Safety and Environmental Enforcement. The approach will be applied to recalculate the response capacity in the Baltic Sea and the results will be compared to the current capacities. This work will be carried out in cooperation with EMSA.

T.5.2: Spill Impact Mitigation Assessment

Mechanical recovery is not always feasible (e.g. in harsh weather conditions) or may even be inadequate (e.g. to deal with new types of fuels). An objective approach to evaluate existing and alternative response strategies is the Spill Impact Mitigation Assessment (SIMA) process, developed by IPIECA. The SIMA process supports the selection of the most appropriate response options for oil spills by evaluating each possible response method against a “no intervention” option. SIMA is an advancement of the net environmental benefit analysis (NEBA) and includes not only ecological but also socio-economic and cultural aspects in the evaluation of response options. Based on results from T.4.2 (likely spill scenarios) and existing regulations, response options that should be evaluated in the SIMA will be selected. The results from T.4.3 will serve as a basis for determining the different resource compartments on which the respective scenario may have an impact. The SIMA will be conducted in close cooperation with the national authorities, as stakeholder involvement is an important part of the SIMA process.

T.5.3: Recommendations for future response capacities

Based on the outcomes of the SIMA, it will be assessed to what extent the existing response options in the Baltic Sea are sufficient and adequate to deal with the likely spill scenarios. Recommendations will be made regarding which response options should additionally be considered and how their capacity can be improved.

Potential Deliverables

D.5.1 Report/manuscript on the SIMA process for the Baltic Sea

D.5.2 Recommendation/policy brief for developing response capacities

WP6 tentative title: Updating the contingency plans – common procedures and recommendations

Objectives

Not only lessons-learned from exercises or real incidents (cf. WP3) can trigger updates of national contingency plans but also new regulations and availability of new data. While performing the update simultaneously, the partner countries can learn from each other and exchange best practices. To what extent it is possible to establish a common updating procedure, which perpetuates after the project period, will be investigated in this work package. As a first step, the procedures for updating the national plans will be investigated and analysed with regard to similarities and differences. Based on this, a first recommendation will be provided on how to integrate new knowledge into the plans (with input from WP3-WP5) and how to integrated new guidelines into the plans. This will be tested by synthesizing the experiences from T.6.2 and T.6.3, which will improve the recommendations.

Description of work

T.6.1: The updating process: existing procedures and a common structure

The procedures for updating the national plans will be analysed with regard to similarities and differences. Common denominators, e.g. what triggers the update, will be identified. The information will be enquired from the national authorities. The information will provide the basis for a transnational workshop to discuss a common structure for the updating process. A draft set of recommendations, for a common updating process and considering expected results from WP4 and WP5, will be developed and subsequently tested in T.6.2. and T.6.3.

T.6.2: Recommendations for integrating HELCOM guidelines into the national contingency plans

Updates of national contingency plans can be initiated when new (international) guidelines become available. The updated HELCOM Response Manual and the new HNS Manual may be a reason for national authorities to consider preparedness and response at sea, on shore, and to different types of spills (HNS, alternative fuels) jointly in their contingency plans. However, it is not an easy feat to integrate the different aspects in one plan. With input from T.3.2 and T.6.1, the Contingency Planning Forum (cf. T.2.1) will discuss and recommend how the integration of HELCOM guidelines into the NCPs can be accomplished.

T.6.3: Updating knowledge base of the contingency plans

The project will provide new data and knowledge (WP4, WP5). Following the draft recommendations set out in T.6.1, this task will investigate how the results of WP4 and WP5 can be integrated into national contingency plans and synthesize best practices and lessons-learned as input to T.6.4.

T.6.4: Recommendations for a common updating process

Based on the experiences gathered in T.6.2 and T.6.3, the task will revisit the draft recommendations (T.6.1) and refine them. A proposal for a joint updating procedure will be developed and discussed in a transnational workshop. The output will be recommendations of how to reach an informal agreement for a Baltic Sea wide joint updating process.

Potential Deliverables

- D.6.1 Synthesis report on lessons learned from updating national contingency plans
- D.6.2 Recommendations for a joint updating process for the Baltic Sea