



Baltic Marine Environment Protection Commission

HELCOM Platform for sufficiency of measures

SOM Platform 2-2019

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Background

The [HELCOM ACTION Project](#) is an EU co-funded project for which HELCOM is the coordinator. The project works closely with the HELCOM *ad hoc* Platform on Sufficiency of Measures (SOM Platform). This document provides an overview of how the topics covered within the ACTION project, and the technical output and data from these (as overviewed in [Document 3-6-Update on technical progress from the ACTION project](#)) are incorporated into the SOM analysis.

Action requested

The Meeting is invited to take note of the information provided.

The HELCOM ACTION Project – Incorporation to SOM analysis

The information provided below aims to briefly summarise how the data and information produced within the technical parts of the ACTION project are utilised and incorporated to support and evaluate the SOM analysis. The “steps” mentioned in this document refer to the methodological framework as outlined in document 2-2, Proposed methodology for assessing effectiveness of measures and pressure-state response.



There are two major routes by which data can enter the SOM analysis, either at the front end (‘front-end’) of the analysis or at the back end (‘back-end’; step 4c & new measures analyses scheduled for 2020) of the analysis. Front end analysis incorporates data and simulations/models to define numeric values that fulfil steps 3, 4 a-b, and 6 in the SOM analysis, whereas back end analysis utilizes the data or simulations/models to evaluate and validate the output of primarily expert-opinion based SOM analyses, provide input into the proposed new measures work scheduled for 2020, or provide information for step 4c. The ACTION work packages 1-4 cover the following topics: by-catch (WP1), impacts on the seabed (WP2), Marine Protected Areas (MPAs, WP3), and the inputs of nutrients (WP4), with progress summarized in [Document 3.6](#).

Within the ACTION project three of the technical work packages will be dealt with via back-end analysis, and, in these cases, they will form a part of a broader topic covered in the SOM analysis.

Below, the point at which the output and data from these ACTION WPs will be utilized within the SOM analysis is provided. In many cases the work within the technical WPs (i.e. WP1-4) is currently ongoing, thus the information provided here is based on expected outputs. Thus, at this stage this outline is somewhat generalized, and the details, assumptions and specificities applied in the final analyses will be clearly documented when the SOM model is run.

ACTION WP1 – By-catch:

The issue of by-catch will be primarily covered within the SOM analyses as a component of the biodiversity analysis. The analysis of biodiversity within the SOM analysis will be carried out using the SOM process described in documents [2-2 Proposed methodology for assessing effectiveness of measures and pressure-state response](#) and [2-3 Use of survey results from expert elicitation in the SOM model](#). The surveys described will be conducted at designated workshops back-to-back with the HELCOM Expert Group on Marine Mammals (EG MAMA) and the HELCOM-OSPAR-ICES Joint Working Group on Birds (JWG BIRD). Bycatch will be considered as an integrated component of these workshops, rather than as a component that is self-standing or independent of the species/taxonomic groups (i.e. birds or mammals) themselves. Therefore, WP1 has been/will be invited to participate in both these workshops and contribute their expertise to steps 3, 4 a-b and 6.

The work within the ACTION project related to by-catch, inclusive of identified high-risk areas and simulated effects of closing fisheries or displacing fisheries activities to avoid by-catch (if successfully applied utilizing the DISPLACE model from WP2), will be utilized as a back-end analysis. This process will involve comparing and validating the expert-based assessment that contributed to the overall SOM analysis for these biodiversity components against data driven models and assessments of effective by-catch reduction approaches. The comparison will be used to validate the SOM analysis in a descriptive manner, and

the potential benefits in applying fisheries closures, restrictions, or displacement will bridge directly between the SOM analysis on the effectiveness of existing measures and proposals on new measures.

ACTION WP2 – Impacts on the seabed:

Impacts on the seabed will be closely associated with the assessment of benthic habitats that will be supported by the HELCOM Expert Network on Benthic Habitats. The impacts on the seabed, in particular on the impacts on trawling on the seafloor, as strongly considered within the work of the ACTION project (e.g. DISPLACE model), will be covered as a component within the SOM analyses taking place on benthic habitats. The major focus of the overall analysis will be the expert-based assessment (as with WP1 above) carried out via the workshop held back-to-back with the HELCOM Expert Network on Benthic Habitats (EN-BENTHIC). WP2 will be invited to participate in this workshop and contribute their expertise to steps 3, 4 a-b and 6. As with WP1, the output of simulations and data analysis within this WP will be used to validate the SOM analysis in a descriptive manner; with the output of WP2, including the work on coastal measures, contributing directly to the work related to new measures. The work within the ACTION project WP2 related to gathering information on available coastal restoration measures, and their effectiveness, will also feed directly into work on new measures.

ACTION WP3 – Marine Protected Areas:

Marine Protected Areas (MPAs) represent a spatial measure towards improving the biodiversity status of the Baltic Sea, both as independent units and as part of a broader regional network. There is significant variation between the reasoning for establishment of an MPA, referred to as the MPAs conservation objective(s), (e.g. protection of a particular habitat or species) and on the restrictions and measures that relate to any given MPA (e.g. no hunting or no trawling). The topic of MPAs thus traverses a large number of the topics or themes addressed under the SOM analysis, for example having components related to benthic habitats, fish, birds, and mammals. Consequently, the topic of MPAs will be integrated as a spatial component within other topics, as well as considered within a specific categorization related to spatial measures. The output and analyses developed within the ACTION project WP3 will be utilized for a back-end validation of the SOM analysis and will contribute directly to bridging between the SOM analyses and the development of new measures.

ACTION WP4 – Inputs of nutrients:

The topic of eutrophication, represented within the ACTION project by WP4 on the input of nutrients, will however be run with a front-end approach, i.e. the SOM analysis model will be provided with data-based numeric values to parameterize the SOM calculation, using output from the ACTION WP4 and other information gathered (e.g. in close cooperation with HELCOM PLC). This will cover steps 3, 4 and 6 of the SOM approach. Where data gaps exist and are not possible to fill with suitable and reliable information then for these aspects an expert-based evaluation equivalent to those applied to other SOM topics will be used. This will ensure all components are included in the analysis of eutrophication/inputs of nutrients. It is foreseen that using expert-based opinion will only be necessary to fill a knowledge and data gap when evaluating agriculture (step 4).

To parameterise the SOM analysis, information related to current activities/sectors (step 3) will be obtained through the HELCOM PLC source apportionment analyses and using data available through European Monitoring and Evaluation Programme, EMEP (e.g. atmospheric deposition). Within the ACTION project, and in cooperation with PLC, this information will also be supplemented by gathering further information, where available, related to point source apportionment and scattered dwellings.

To provide relevant information to fulfil the needs of the SOM analysis relating to the effectiveness of measures (step 4), then information on load reductions due to full implementation of existing measures will be provided. The information will be provided per activity, for example for waste water treatment (e.g. reductions achieved by implementing the HELCOM Recommendation 28E/5 on municipal waste water

treatment) or atmospheric emissions (e.g. based on EMEP data and predictions). Diffuse sources would similarly be assessed, though the confidence in the information available would be reflected in a wider uncertainty.

Agricultural activities have been identified as one area where a detailed and numeric evaluation of the effectiveness of measures may be problematic. While some categorical data would be available and would be synthesised within the ACTION project, the effectiveness aspect for agriculture will be assessed via an expert-based evaluation, in an approach equivalent to that used in other SOM topics. Such an evaluation will be carried out via relevant HELCOM groups such as HELCOM PLC and AGRI.

The back-end component for the SOM assessment for eutrophication/inputs of nutrients will involve a descriptive comparison of the output and parameterising data against published work related to the effectiveness and sufficiency of measures for mitigation nutrient inputs.