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Background

This document contains the proposed approach and work plan for the use of marine waters analysis to be carried out by the [HELCOM BLUES project](#)¹ for inclusion in HOLAS III.

The HELCOM BLUES project, co-financed by the European Union, runs from 2021–2023. The project covers topics related to biodiversity, litter, underwater noise, and effective regional measures and aims at supporting HOLAS III and the implementation of the BSAP and the MSFD for those Contracting Parties that are member states of the EU. BLUES Activity 1 focuses on analyses to support effective regional measures and policies. It further develops the approaches and data for socio-economic analyses previously conducted as part of HELCOM TAPAS, SPICE and ACTION projects that supported HOLAS II and the BSAP update.

One of the tasks in Activity 1 of BLUES is to improve and conduct a regional economic and social analysis of the use of marine waters for use in HOLAS III and the next round of initial assessments by the Contracting Parties also being EU Member States. The work applies both the marine waters accounts and ecosystem services approaches to characterize the economic impacts from the use of marine waters, employing the regional approach developed in the [TAPAS](#) and [SPICE](#) projects. The proposed approach is functionally identical to that used in HOLAS II; only being updated as required by current data availability. The description of the approach is based on the thematic report on economic and social analyses for HOLAS II ([HELCOM 2018](#)). The use of marine waters analysis in BLUES will be conducted in 2022-2023.

The proposed approach was supported by EN ESA 15-2021 for inclusion in HOLAS III (Outcome EN ESA 15-2021, para. 2.4).

Action requested

The Meeting is invited to:

- consider and endorse the approach for, and inclusion of, assessing the use of marine waters for the HOLAS III assessment, where relevant.

¹ The “HELCOM Biodiversity, Litter, Underwater noise and Effective regional measures for the Baltic Sea” (HELCOM BLUES) project is led by HELCOM and co-funded by the European Union. More information at <https://blues.helcom.fi>

Use of marine waters analysis

As a society, we utilize the marine waters in different ways. Our various economic sectors use the sea - its resources, space, energy, etc. – and profit from doing so. As individuals, we are also employed by these economic sectors, purchase or obtain goods and services from these sectors, and enjoy using marine and coastal areas for recreation and other purposes.

While bringing certain socio-economic benefits to society, the use of marine waters also creates pressures on the marine environment. Some activities, such as fishing and recreation, are dependent on the state of the marine environment, meaning that they require a certain level of environmental quality to continue as activities. Other activities, such as the transport and energy sectors, use the sea for space, but are not themselves affected by the state of the marine environment. Some sectors, such as agriculture, impact the marine environment (use the sea as a sink) but takes place elsewhere.

The socio-economic analysis on the use of marine waters measures the economic impact from the use of the sea in the current state. In this analysis, this impact is measured using economic indicators which are, for the most part, based on market values. These indicators and their values do not specify the negative impacts the uses may have on the quality of the marine environment or the activities themselves. Thus, the analysis of the use of marine waters analysis should be seen as a piece of the overall picture of how the society and the marine environment are linked.

Methodology

The methodology for the economic and social analysis of the use of marine waters was originally developed by TAPAS and implemented for HOLAS II. Some sections of the text below have been extracted from the HOLAS II [supplementary report on Economic and social analyses in the Baltic Sea region](#).

Approach for assessing the regional use of marine waters

The assessment of the use of marine waters will utilize a mixed approach which builds mainly on marine water accounts but combines components of the ecosystem services approach with the analysis. Both approaches were utilized by HELCOM countries in their 2012 MSFD Initial Assessment reporting. The mixed approach leans heavily on statistical information but complements these with non-market values and non-sectoral activities when possible (ecosystem services approach). The emphasis on the marine water accounts approach is a consequence of data availability: statistics for marine sectors and activities are more readily available than ecosystem service data and values. To increase comparability across the Baltic Sea region, sources providing data for most or all of the coastal countries will be prioritized.

The approach can be characterized as follows:

General

- Utilise a mixed approach - marine water accounts approach, complemented by ecosystem service approach with non-market values
- Identify and describe the different uses of the marine waters
- Evaluate whether the activity exerts a pressure and is dependent on the state of the marine environment, based on the Baltic Sea pressure and impact index (BSPII) for pressures, expert assessment, and literature review for dependence
- Prioritise activities and sectors based on the above, as well as on data availability

Indicators and data

- Present socio-economic indicators for each activity describing the contribution of marine uses to the economy and human welfare

- Select indicators for which standardized data is available across several Baltic Sea countries to ensure harmonization (it should be noted that for the majority of the sectors, Russian data were not available)
- Include value added and employment indicators when available
- Include alternative indicators representing the activity when socio-economic indicators are unavailable
- Record data source, indicator methodology, and information about year, anomalies, etc.
- Present the indicator specific data for each sector/activity at the country level

Evaluation

- Assess the data quality and availability and provide recommendations for improvement

A shortcoming of employing only the marine water accounts approach is that the statistics exclude uses of the environment that are non-consumptive and/or are hard or impossible to measure using market prices. To overcome this, the approach is to supplement the existing statistical indicators with indicators found from the scientific literature that measure economic benefits from non-market uses (i.e. recreation).

Human activities and sectors

Sectors included in the analysis will be prioritized based on those which have been deemed relevant to the Baltic Sea in HOLAS II and to the MSFD Annex III (list of activities and sectors) and those which;

- create significant pressure to the marine environment,
- derive significant benefits from the use of the marine environment,
- are dependent on the environmental state of the Baltic Sea,
- have available data.

The pressures exerted on the Baltic Sea by an activity will be assessed based on the outputs of several previous HELCOM projects (e.g. TAPAS, ACTION). BLUES will investigate the possibility of including more activities in the assessment than were included in HOLAS II.

Methodological development

The [Roadmap for continued HELCOM work on economic and social analyses](#) and the [horizontal actions related to ESA in the updated BSAP](#) call for further integration of ESA to other assessments. Steps toward integration could be potentially achieved with the use of marine waters analysis and its better integration with the environmental assessment. This could entail, for example, linking the ESA of the use of marine waters to the pressures and state assessments, ecosystem accounting and assessments of ecosystem services benefits and values specifically for the use or marine water analysis (see figure 1). HELCOM MetDev project is responsible for overall integration of ESA into environmental assessments (see figure 2 for a conceptual overview of the planned integration) and has a specific task on ecosystem accounting. HELCOM BLUES project provides a general description for the ecosystem services approach and compiles information on benefit indicators for ecosystem services that can be used also to support the use of marine water analysis. These work strands could be expected to advance the integration of ESA with other assessments.

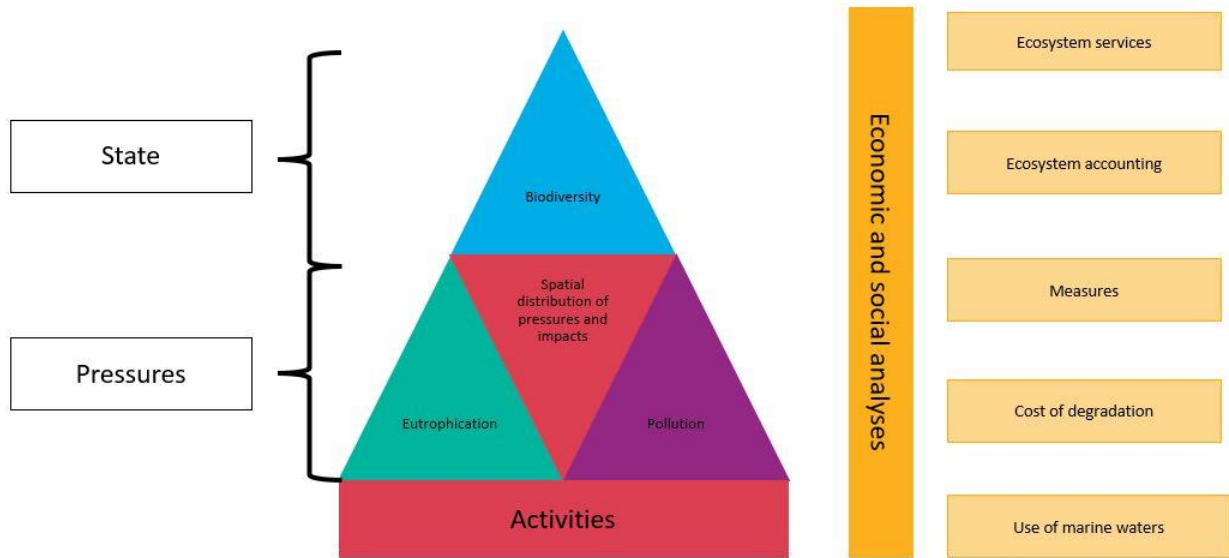


Figure 1. A conceptual representation of the division and internal logic across topics covered by the thematic assessments planned under HOLAS III. In this figure the activities underpin the pressures, which in turn affect the state of biodiversity. The economic and social analyses are by their nature horizontal, with the various aspects under this thematic assessment providing supporting information to each of the topics under the four other thematic assessments.

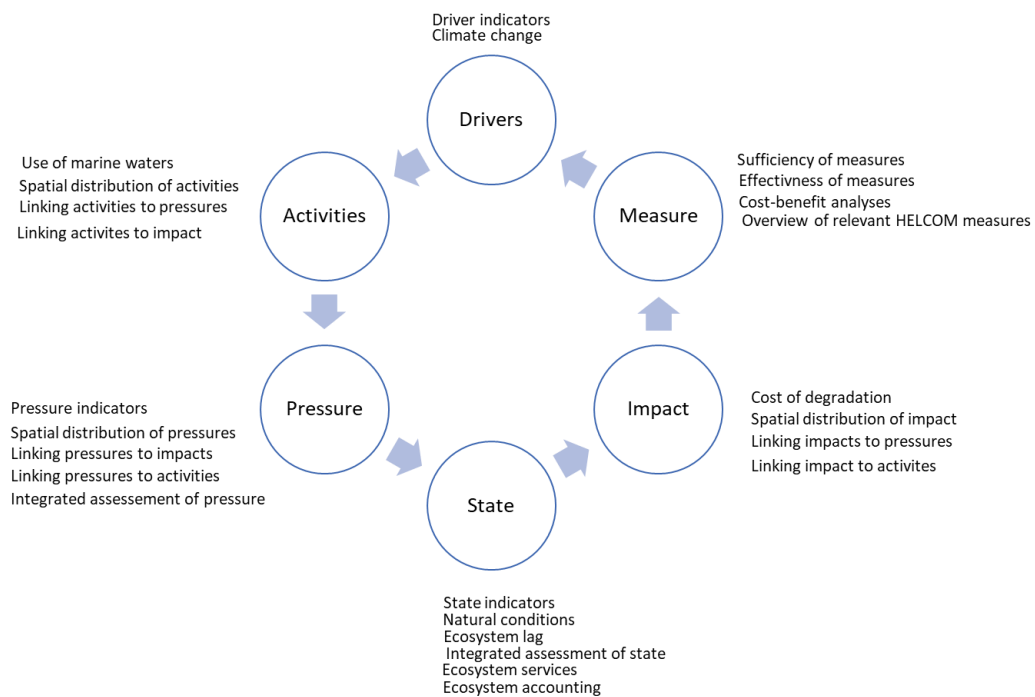


Figure 2. Initial representation of how the various topics planned for inclusion in HOLAS III are divided across the DAPSIM assessment framework. The aim is to integrate as many of the steps of the cycle as possible under each topic in the State of the Baltic Sea report, thus improving the holistic aspects of the assessment. Note the placement of the use of marine waters analysis as an integral part of the activities component.

Work plan

The majority of the work, including performing the analysis itself, is planned for the second half of 2022 to be conducted by the HELCOM BLUES project. The methodological development will consider the work done as part of the HELCOM MetDev project, while the BLUES project is looking into increasing the application of the ecosystem services approach for the use of marine waters compared to HOLAS II.

Most required data will be gathered either within the BLUES project, the HELCOM Data Flow project, or in cooperation with EN ESA. However, a targeted data request made to the Contracting Parties through e.g. WG GEAR cannot be ruled out at this time. Such a request would only come after consultation and support from EN ESA and all other potential data sources have been ruled out.

EN ESA has been and will continue to be consulted for all ESA work conducted by BLUES. Additionally, BLUES is aware of ongoing work by the HELCOM MetDev and Data Flow projects and is maintaining contact with these projects to identify synergies.

Table 1. Planned timetable for the BLUES work related to the use of marine waters analysis

Task	Timing
Conduct use of marine waters analysis	July 2022 - January 2023