



Baltic Marine Environment Protection Commission

Working Group on the State of the Environment and Nature
Conservation

STATE & CONSERVATION
5-2016

Tallinn, Estonia, 7-11 November, 2016

Document title	Overview and timeline of HOLAS II project
Code	4J-40
Category	INF
Agenda Item	4J – HELCOM indicators and assessments
Submission date	25.10.2016
Submitted by	Secretariat

Background

This document gives an overview and updated time-line for the HOLAS II project. Related documents for endorsement at STATE & CONSERVATION 5-2016, e.g. assessment tools, are highlighted.

Action requested

The Meeting is invited to

- take note of the information and use it as needed during the Meeting.

The HOLAS II project in brief

HOLAS II will give an update on the overall state of ecosystem health in the Baltic Sea through the development of the 2nd HELCOM Holistic Assessment of the Baltic Sea. The assessment will follow up on the goals of the Baltic Sea Action Plan, and will be developed so that the results will support reporting under the EU Marine Strategy Framework Directive (MSFD) by those Contracting Parties to the Helsinki Convention that are also EU Member States. A first version of the report will be produced by mid-2017 and an updated report will be produced by mid-2018.

The main components of the assessment are:

- **Environmental status of the Baltic Sea** based on HELCOM core indicators. Integrated assessments, using assessment tools, will be carried out for biodiversity, Eutrophication, Hazardous substances.
- **Pressures and human activities acting on the environment** in the Baltic Sea. Cumulative impacts are assessed using the Baltic Sea Pressure and Impact Index. Trends in key pressures will be included.
- **Economic and social analyses** to support regional assessments of the use of marine waters and cost of degradation.
- **Measures** to reach good environmental status.

Based on preliminary discussions at HOLAS II 1-2014 and HOLAS II 2-2015 it was proposed that main results of the assessment are published in a circa 90 pages report available in print and for download as pdf, while more detailed information will be presented as associated products in the form of web based information, downloadable fact sheets and thematic reports. The time-line for finalizing the 2nd HELCOM Holistic Assessment is outlined in Annex 1.

A considerable share of the development work required to meet the goals of HOLAS II takes place within the HELCOM coordinated EU co-financed [project BalticBOOST](#) and the [TAPAS project](#).

The assessment of good environmental status

The status assessments will build on the HELCOM core indicators as developed within HELCOM, and by ICES for commercial fish and shellfish. Agreements at STATE & CONSERVATION 5-2016 related to core indicators are outlined in [document 4J-39, Overview of HELCOM indicators](#).

For the themes biodiversity, eutrophication and hazardous substances the assessment will be based on quantitative integration of core indicator evaluations by use of assessment tools. The development of assessment tools for biodiversity and hazardous substances has taken place under the HELCOM BalticBOOST project and the needs to adjust the tool for assessing eutrophication has been discussed by the HELCOM Intersessional Network on Eutrophication.

In addition, marine litter, underwater noise, non-indigenous species and seafloor integrity will be assessed separately and exploitation of commercial fish will be included in HOLAS II based on assessments carried out by ICES. In the case that operational core indicators are missing, a more descriptive approach will be taken. Such approach has already been proposed for marine litter and underwater noise (HOLASII 5-2016, para 5.10) and may also be applicable for other topics. The HELCOM assessment of maritime activities planned to be finalized by the end of the 2016 and will contribute to HOLAS II under the relevant sections.

The assessment approaches to be used by HOLAS II are presented for endorsement at STATE & CONSERVATION 5-2016 and are addressed in the following documents:

- [4J-4 Proposal on adjustments to the HELCOM Eutrophication Assessment Tool \(HEAT 3.0\) for use in HOLAS II](#)
- [4J-35 Endorsement of a biodiversity assessment tool for use in HOLAS II](#)
- [4J-36 Endorsement for a hazardous substance assessment tool for use in HOLAS II](#)

- [4J-21 Proposal for evaluating cumulative impacts on benthic habitats using BSII for HOLAS II purposes](#)

The assessment of human activities and pressures

The assessment is partly based on the collation of spatial data set of human activities and pressures that will be used in the implementation of the Baltic Sea Pressures and Impact Index as well as being made available as fact sheets for single activities and pressures. The following documents to STATE&CONSERVATION 5-2016 are related to the assessment of human activities and pressures:

- [4J-18 Endorsement of the method to calculate the Baltic Sea cumulative impact index \(BSII\)](#)
- [4J-19 Spatial datasets for the Baltic Sea Impact Index](#), including information on the spatial data sets on pressures, human activities and ecosystem components to be used in the BSII
- [4J-20 Process to review and verify spatial datasets](#), presented the process for Contracting Parties to approve of the datasets used in the BSII.

In addition, trend in key pressures will be presented in the report based on the following principles (HOLAS II 5-2016, para 5.14)

Pressures that:

- were identified as most importance in HOLAS I
- have a strong influence according to the BSII
- are of high public interest
- are considered as emerging pressures
- can be represented by data on both spatial and temporal information
- are reflected in the HELCOM core pressure indicators.

Economic and social analyses

The assessment of economic and social impacts has in 2016 mainly been taken forward as part of the TAPAS project. The project is led by SYKE, Finland, with SEI Tallinn, Estonia and HELCOM as a co-leads. Two HELCOM workshops have been held to guide the TAPAS project in this regard: in Helsinki 11-12 May 2016 ([TAPAS ESA WS 1-2016](#)) and in Tallinn, 8-9 September 2016 ([TAPAS ESA WS 2-2016](#)).

For the 'use of marine waters' analyses, economic data is gathered for different sectors, e.g. on production value, profits, number of employees, value added. For the TAPAS project this approach is used for case studies in Estonia and Finland and based on a selection of human activities and sectors: fisheries, aquaculture, tourism and leisure activities, energy production, and transport. If resources are available beyond TAPAS the case studies on the use of marine waters will be extended also to other countries. The proposed cost of degradation analyses in HOLAS II are primarily based on the assessment of the benefits lost if Good environmental status (GES) is not reached. Estimates for the region are based on data from existing economic valuation studies of the environment. The information compiled through the TAPAS project and used in the regional ESA will be made available for countries to use in national reporting if desired. At HOLAS II 6-2016 it was proposed to test as a first option to integrate the ESA results in the chapters of status and pressures on the marine environment of the summary report.

The Economic and social analyses of HOLAS II are guided by the Gear Group as agreed by HOD 50-2016 (Outcome, para 4.54).

Finalizing the first version of the 2nd Holistic Assessment by June 2017

At HOLAS II 6-2016, the content of the report was further outlined as included in Annex 2. The writing of the assessment report will be carried by a writing team which will consist of members of HOLAS Core Team, the Secretariat and a professional in scientific communication. The Secretariat will develop a timetable and a more detailed overview of the reporting, including draft responsibilities for different sections, by the next HOLAS II meeting which will be held as an online meeting in 19 January 2017. HOLAS II 6-2016 agreed that

the writing team will be tasked with drafting the first version of the HOLAS II report in accordance with the proposed outline (see Annex 2). The writing team will work with experts to fill in the content of the printed report and the thematic, more detailed, reports ('Level 2' in Annex 2), including relevant HELCOM expert groups, networks and projects. It is foreseen that outcomes of the BalticBOOST and TAPAS projects are also going to be of high relevance for this work.

The first version of the report will be developed by the next physical meeting of the HOLAS II core team will be held 4-6 April 2017 in Copenhagen. The first version of the assessment will then be presented for review at STATE 6 CONSERVATION 6-2016, tentatively in May 2017, and for approval by HOD in June 2017 (Table 1).

Table 1. General overview of the HOLAS II timeline (Not changed since HOLAS II 5-2016)

	2014		2015				2016				2017				2018	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Planning and project initiation																
Outline of the assessment																
Indicator development- Core indicators																
Propose indicators and spatial data to be included																
Data arrangements																
Tool and method development																
Final data submission for inclusion in HOLAS II																
Agree assessment methods to be applied (HOD 51-2016)																
2017 assessments (data for 2011-2015)																
Evaluation of assessment results																
Comments and review by WGs of the draft first assessment in spring 2017																
GEAR to consider with a view to national consultation, spring 2017																
First assessment results (HOD June 2017)																
Updated data as needed																
Updated analyses as needed																
Writing and evaluation																
Finalized report, June 2018 (HOD)																

Annex 1. HOLAS II related meetings and workshops in 2016-2017

The table shows HOLAS II Meetings and HOLAS II related workshops in 2016. In addition, the dates of some upcoming HOLAS II related meetings are shown, until June 2017.

Meeting	Date	Venue
HELCOM TAPAS Pressure Index WS 1-2016	28-29 January 2016	Helsinki, Finland
BalticBOOST HZ WS 1-2016	2-4 February, 2016	Copenhagen, Denmark
HELCOM BalticBOOST Biodiv WS 1-2016	11-12 February, 2016	Copenhagen, Denmark
HOLAS II 5-2016	26-28 April, 2016	Helsinki, Finland
HELCOM Workshop on Fish Indicators	10 May, 2016	Gothenburg, Sweden
HELCOM TAPAS ESA WS 1-2016	11-12 May, 2016	Helsinki, Finland
HOD 50-2016	15-16 June, 2016	Tallinn, Estonia
MARITIME 16-2016	5-9 Sept, 2016	Tallinn, Estonia
HELCOM TAPAS Pressure Index WS 2-2016	6-7 Sept 2016	Helsinki, Finland
HELCOM TAPAS ESA WS 2-2016	8-9 Sept 2016	Tallinn, Estonia
HELCOM BalticBOOST HZ WS 2-2016	13-14 Sept 2016	Copenhagen, Denmark
HELCOM BalticBOOST Biodiv WS 2-2016	14-15 Sept 2016	Copenhagen, Denmark
HOLAS II 6-2016	4-6 October, 2016	Helsinki, Finland
PRESSURE 5-2016	24-28 October, 2016	Warsaw, Poland
STATE & CONSERVATION 5-2016	7-11 November, 2016	Tallinn, Estonia
HOD 51-2016	14-15 December, 2016	Helsinki, Finland
HOLAS II online meeting	19 Jan 2017	na
Workshops to review results of the assessment of - biodiversity, - hazardous substances - eutrophication	Tent. February	tbd
Workshops to review the BSII results	Tent. February	tbd
Economic and social analyses workshop	Tent. February	tbd
HOLAS II 7-2017	4-6 April 2017	Copenhagen, Denmark
STATE & CONSERVATION 6-2017	Tent. May	tbd
HOD 52-2017	Tent. June	tdb

Annex 2. Draft outline of the HOLAS II summary report, printed version and online (Outcome of HOLAS II 6-2016).

('Level 1')

An outline of potential web products is given further below. Each chapter begins with key questions proposed to be addressed.

The outline gives the overall content proposed to be covered. The way in which the information given in each case (e.g. as figures, text boxes, main text) is still to be decided.

0. Preface

1. Summary

2. Introduction

- a. Policy background: Visions and objectives for the Baltic Sea;
 - i. The Baltic Sea Action Plan
 - ii. The Marine Strategy Framework directive
 - iii. Other directives of relevance for the assessment
- b. Biological, Oceanographic and cultural characteristics of the Baltic Sea
- c. Previous assessments
- d. Reading instructions (ref to online material etc)

3. Methods

- a. Short outline of the HOLAS II work process
 - i. Project structure and links to other Helcom activities
 - ii. New developments of tools and indicators
 - iii. [Extended method descriptions published on-line]
- b. Geographic delineations for the assessment
- c. Data sources
- d. Years covered by the assessments

4. Environmental status of the Baltic Sea

Questions are the same for all sections below (4a-4i)

- *What is the current status?*
- *If not in good status, how big part of the Baltic Sea is affected and what geographical areas are particularly affected?*

Results for Cost of degradation analyses are added in such a way that they are clearly visible

- a. Biodiversity assessment
 - i. Integrated assessment results per ecosystem component and for total biodiversity. Results are presented as maps by spatial assessment unit, also showing the distance to GES (5-scale approach; 2 levels of GES, 3 levels of sub-GES)
 - ii. Information on whether GES is achieved per core indicator
 - iii. Trend over time of selected species or species groups, habitats (e.g. key species, species with negative development or signs of recovery)
 - iv. Text as needed to support and explain the evaluation, also opportunity to show additional information to complement.
 - v. Food web evaluation
- b. Eutrophication
 - i. Results from integrated assessment in map, using the HEAT tool
 - ii. Information on whether GES is achieved per indicator

- iii. Trend over time in the indicators where this is possible
- c. Hazardous substances
 - i. Results from integrated assessment in map, covering offshore areas (to be agreed on if also cover coastal areas). Results are presented as maps by spatial assessment unit also showing levels of the status, eg as distance to GES.
 - ii. Information on whether GES is achieved per core indicator
 - iii. Trend over time in the indicators where this is possible
 - iv. Oils spills indicator trend
 - v. Text as needed to support and explain the evaluation, also opportunity to show additional information to complement.
- d. Non-indigenous species
 - i. To be developed
- e. Commercial fish
 - i. To be developed
- f. Hydrographical impacts
 - i. To be developed
- g. Marine litter
 - i. Evaluation of status using available data and a descriptive approach based on proposals from the expert network (no indicator-based assessment anticipated)
 - ii. Assessment of spatial distribution of the problem in different parts of the Baltic Sea, using anecdotic information. Examples could compare the situation at e.g. different beaches that could represent status affected by different activities.
 - iii. Ongoing trends cannot be assessed but potentially an expert evaluation can be included, which could consider eg. available data and and trends in human activities that affect the status
 - iv. Further text as needed to support and explain the evaluation
- h. Underwater noise
 - i. Evaluation of status using available data and a descriptive approach (no indicator-based assessment anticipated)
 - ii. More detailed information on the spatial distribution, to show the severity of the problem in different parts of the Baltic Sea. Ambient noise maps from the BIAS project could be shown and possibly combined with distribution maps of prioritized sound sensitive species in the HELCOM area. Consider using information from registry of impulsive events.
 - iii. Ongoing trends cannot be assessed but potentially an expert evaluation can be included, which could consider e.g. available data and trends in human activities that affect the status.
 - iv. Further text as needed to support and explain the evaluation.

5. Pressures and human activities acting on the environment

- a. *How is the ecosystem affected by human activities?*
 - i. Relationships and links between human activities, the pressures they are causing and impacts/state. This could make use of the outcome of the survey and literature information (“impact chains”)
- b. *Which geographical areas and which ecosystem components are particularly impacted?*
 - i. Results from the Baltic Sea impact index
 - ii. Pressure layers should reflect the total situation in the sea during 2011-2016, so that accumulated values are used always when motivated, eg physical loss, nutrients, hazardous substances? Current values (2011-2016) are used for underwater noise, disturbance of species, extraction of species, physical disturbance.
- c. *What geographical areas have particularly many pressures right now?*
 - i. Results from the Baltic Sea pressure index, or selected information with reference to the main pressures
 - ii. Pressures layers should show input values 2011-2016 always when applicable
 - iii. Presentation as maps
- d. *What are the most important pressures acting on the Baltic Sea environment today?*
 - i. Based on the Annex III higher level grouping category
 - ii. Table summarizing information based on BSII results
- e. *Is the situation improving or getting worse?*
 - i. (Attempt to) Estimate the rate of change in the most important pressures. This can be presented as a table that synthesises information from chapter 4 where relevant. (use descriptive information if no quantitative information)
 - ii. Trends over time of selected pressures that have changed a lot recently (increased or decreased), when data is available, based on the principles of HOLAS II 5-2016
 - iii. Connect to management targets by referring to results for the pressure core indicators: MAI indicator, oil spills where relevant, and refer to the situation in international fisheries management
- f. *What is the economic importance/benefit of human activities/sectors using the marine environment? Which human activities depend on and affect the sea/the status of the sea?*
 - i. Economic and social analysis, combined with human activities/pressures map where applicable

6. Measures towards reaching GES

- a) *What have we done to improve and protect the environment?*
(focus on measures taken jointly in HELCOM)
 - Regionally agreed targets (MAI/CART) and their fulfilment. A reflection on the continued aim in HELCOM to develop environmental targets also for other pressures than input of nutrients.
 - Existing and planned measures at the regional scale, e.g.
 - MPA network
 - RAP marine litter
 - Measures in the maritime sector
 - etc (could be proposed by Secretariat)
- b) *Are the measures taken so far sufficient to reach GES?*
 - The depth of this part of the chapter is still to be determined. It will also need to reflect on reasons why GES has not been achieved although measures have been taken (e.g. time lag

in response and recovery and variation depending on pressure/measure), possibly also to reflect societal drivers if such analysis can be arranged.

7. Where is the Baltic Sea going? Conclusions and future outlook (Holistic view)

- a. This chapter will integrate information and provide a holistic understanding of the results presented in previous chapters. This will be done by addressing specific issues in a more narrative manner, e.g. “is the Baltic Sea recovering from eutrophication”?

Web based material

“Level 2” Thematic results (more detailed assessment results)

Characteristics of the Baltic Sea (if not in full report)

Integrated results

1. Biodiversity
2. Eutrophication
3. Hazardous substances

Maritime assessment

Cumulative impacts

4. BSII assessment

Economic and social analyses

5. Marine Water accounting & Cost of degradation

Additional themes and methods descriptions, if needed

“Level 3”

Core indicator reports (on its original place on the Helcom web)

- to be listed according to titles (marine litter, underwater noise etc.)

Other indicator reports, as needed

Fact sheets on the spatial datasets (associated with the HELCOM map and data service)

1. human activities (to be listed)
2. pressures (to be listed)
3. ecosystem components (to be listed)

Additional products, if needed