



Document title	Project proposal for HELCOM Data Flow project
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Agenda Item	5– Activities of relevant HELCOM projects or processes
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Reference	

Background

In support of the preparatory work for the Third State of the Baltic Sea report (HOLAS III), HELCOM GEAR 20-2019 (Outcome, para 4.6) invited the Secretariat to prepare a draft for project proposal on developing dataflows, to be presented to STATE&CONSERVATION 11-2019 and GEAR 21-2019 for review.

This document contains a project proposal for a project to review and further develop HELCOM assessment related data flows: HELCOM Data Flow project. The plan for project duration is planned for Q3/2020-Q4/2021.

The project would be targeting on improving the HELCOM data flows so that the flows would be fully operational for HOLAS III. The project would be building on lessons learnt from the Second State of the Baltic Sea report (HOLAS II 2018 and 2017). It was identified during the HOLAS II process that many of the data flows required for the State of the Baltic Sea assessment were not fully operational. These issues are described in State & Conservation 10-2019 Document 3MA-7 Overview of HELCOM Assessment data flows. The aim of the Data Flow project would be to carry out in-depth gap-analysis of current reporting data flows compared to the commitments outlined in Monitoring guidelines and Monitoring manual and as required by indicator-based assessments, including also data flows feeding cumulative impact assessments and economical and social analysis. The project would also develop a data flow plan for HOLAS III based on input received on optimal reporting deadlines as well as seeking solutions to reduce the need of ad-hoc data calls to a minimum. This will be done by scoping data requirements to meet assessment needs, with feasible data request intervals, seeking solutions for synergies with other data flows and by seeking solution for regular annual reporting data flows. The Data Flow project would focus also on looking for options on developing flexible ways of making data available/reporting data to reduce the intensity of workload for the national data providers, including establishing more frequent, more regular reporting in line with the agreement in State and Conservation. The project would also further develop data management solutions in the Secretariat to reduce manual data processing.

This project proposal outlines a work plan and required minimum resources on the Secretariat side required for improving the data flows feeding assessments for HOLAS III. Funding for this project proposal has not been secured yet.

As majority of the reporting gaps result from lack of resources and manual work required for reporting the data and obstacles therein, the Secretariat would also strive to seek possibilities for additional external funding resources to support reporting and capacity building at the data provider level, which has been identified as one of the bottle necks in the HELCOM data flows. Such a funding mechanism could be CEF-TC-2019-2 “Public open data” for which HELCOM Secretariat is currently drafting a proposal with interested project partners which responded to a request to be part of a correspondence group for drafting a project proposal for this call submitted to State & Conservation contacts in 28 August 2019.

This document has also been submitted to STATE & CONSERVATION 11-2019 ([document 7J-5](#)) for endorsement in principle of the proposed project, with the intention to submit to HOD 57-2019 for approval, as well as the consideration of provision national funding for the work.

Action requested

The Meeting is invited to:

- review and in principle endorse the proposed project, with the intention to submit to HOD 57-2019 for approval.
- consider the possibility to provide national funding for the work.

PROJECT DESCRIPTION

1. Title of Project

HELCOM Data flow project (DataFlow), 2020-2021

2. Project Manager(s)

HELCOM Secretariat through the HELCOM Data Coordinator.

3. Proposing Party

Contracting Party

Commission

Subsidiary body

Heads of Delegation

Executive Secretary

4. The body supervising the project

State and Conservation Working Group and Professional Secretary

5. Target and activities

Background

The project would be targeting improving the data flows so that the HELCOM data flows used for core indicators and supporting assessments (e.g. Baltic Sea Pressure Index/Baltic Sea Impact Index and Economic and Social Analyses) would be fully operational for the Third State of the Baltic Sea Assessment (HOLAS III). The project would be building on lessons learnt from the Second State of the Baltic Sea report (HOLAS II 2018 and 2017) and link to the work on consolidating and further developing indicators. The project would work closely together with HELCOM database hosting organizations, e.g. ICES for oceanographic, contaminant and biodiversity related data flows.

It was identified during the HOLAS II process that many of the data flows required for the State of the Baltic Sea assessment were not fully operational. There were many reasons, e.g.:

- lack of proper data hosting arrangements
- lack of complete reporting by Contracting Parties
- reported data was not fully harmonized or was not according indicator assessment requirements
- utilizing data stemming from other data flows or from ad-hoc data call.

The aim of the Data Flow project would be to carry out in-depth gap-analysis of current reporting data compared to the commitments outlined in Monitoring guidelines and the Monitoring manual and as required by indicator assessments, including also data flows feeding into cumulative impact assessments and economical and social analysis.

The project will develop a data flow plan for HOLAS III based on input received on optimal reporting deadlines as well as seeking solutions to reduce the need of ad-hoc data calls to minimum by seeking solution for regular and more frequent (annual or biannual where possible) reporting data flows.

The project will also focus on looking for option on developing flexible ways of making data available/reporting data to reduce the required workload of the national data providers. In addition, the project will further develop data management solutions in the Secretariat to reduce resources required for manual data processing.

Activities

Project staff: Project researcher and database developer

A. Produce elaborated gap analysis of data flows applied currently in HELCOM assessments (Project researcher)

Summary of data reporting gap analysis have been provided regularly to State & Conservation by the HELCOM Secretariat in cooperation with the data hosts in the past but resources have not been available for carrying out extensive gap analysis to pinpoint exact data gaps in terms of data availability and have not been compared against information in HELCOM Monitoring manual from the assessment point of view as well as analyzing possible overlapping data flows and seeking synergies with these data flows. This analysis would be carried out in the beginning of the project in order to be able to target specific gaps and synergies and develop solutions.

B. Analyze the data flow reporting requirements against indicator and assessment data requirements and monitoring guidelines and monitoring manual (Project researcher)

HELCOM Secretariat has initiated a survey for indicator leads focusing on challenges related to indicator operationalization, one point being data flow related issues. The results from this process will be used in analyzing indicator data requirements in terms of requirements supporting parameters, formats, monitoring guidelines and monitoring manual against the current data flow reporting requirements. Outcome of this analysis would be to suggest revisions to reporting requirements as needed in order to make sure that reported data is:

- available from current monitoring scheme
- supports the indicator-based assessment or other data usage in assessments (e.g. BSPI/BSII, ESA).

C. Work for optimizing data management processes, data flows and infrastructure to support HOLAS III (Project researcher and Database Developer)

The project would develop a data flow plan and implementation roadmap for HOLAS III. The plan would be based on current HELCOM data flows and input received on optimal reporting deadlines. The plan would also contain a set of solutions to reduce the need of ad-hoc data calls to minimum by seeking solution for regular and more frequent reporting data flows and/or synergies by exploring the possibilities on making use of other available data flows and assessing their usability for the assessment.

D. Liaise with national data providers and explore possibilities of advancing data harvesting based reporting and synergies with other reporting data flows (Project researcher and Database Developer)

The project would work in close cooperation with relevant national data providers to find flexible reporting solutions, including investigating possibilities for data harvesting. The work would support the aim on exploring the possibilities contain scrutinizing other reporting obligations and on synergies in data sharing mechanisms to find out for synergies.

E. Create data conversion tools for data flows currently managed by HELCOM Secretariat to reduce manual workload (Database Developer)

HELCOM Secretariat is currently hosting several databases used by HELCOM indicators and other assessment products such as BSPI/BSII. The project would increase the capacity of HELCOM Secretariat to deal with those data management tasks issue by developing automated workflows for targeted data flows on biodiversity and prioritized human activities and pressures, to be decided during the project, by further developing and making use of tools already available to the Secretariat, e.g. namely ArcGIS Data Interoperability extension / FME Desktop workbenches would be developed and applied for several data flows.

The project will follow the HELCOM risk assessment procedure.

6. Expected results

The expected results are in the form of documents and operational data flows supporting HOLAS III Assessment, more explicitly:

1. Detailed documentation on data flow gaps
 - Gaps of data reporting compared to monitoring network
 - Analysis of overlaps with other reporting obligations and data sharing mechanisms
2. Analysis of reporting requirements
 - Analysis would conclude on feasibility in current reporting requirements compared to core indicator requirements on parameter level, e.g. by recommending applying simplified reporting when feasible.
 - Analysis of HOLAS II data flows suitability for cumulative impact assessment needs (BSII/BSPI)
 - Analysis of HOLAS II data flows suitability for economic and social analysis assessment needs (ESA)
3. HOLAS III Data flow plan
 - Further developed HELCOM Data reporting framework which is optimized for indicator-based assessments
 - Operational data flows outlined, and established, for each core indicators
 - Improved data flows for cumulative impact assessment needs (BSII/BSPI)
 - Improved data flows for economic and social analysis assessment needs (ESA)
4. Data conversion tools (ArcGIS Data Interoperability/FME Workbenches) developed for targeted data flows managed by HELCOM Secretariat, at least, but not limited to:
 - Operationalizing of seal abundance/distribution indicator data flow (Core indicator)
 - Reporting on Recommendation on depositing of dredged material (BSPI/BSII)
5. Reporting of data / creating data conversions tools to support current reporting flows and fill gaps identified in Result 1.

7. Consistency with HELCOM priorities

yes no

8. Timetable (including number of Project Team meetings)

The project will start in Q3/2020 (July) and will finish in Q4/2021 (December).

9. Budget (taking into account financial year from 1 July to 30 June)

9.1 Total Costs

The planned 18 man months would require an estimated 68 000 Euros funding.

This is intended to be divided as follows:

- 12 man months for project researcher;
- 6 man months for database development.

9.2 Sources of financing divided per financial year

Financial Year	Man Months
7/2020-6/2021	12
7/2021-6/2022	6

10. Additional requests (manpower, equipment, facilities, etc.)

10.1 From the Contracting Parties

The Project request information from and cooperation with representatives from the national data providers.

10.2 From the Secretariat

The Secretariat will ensure coordination of the project with other planned and ongoing HELCOM processes, including indicator development work, facilities and equipment needed for the work, in-house support for the development of the database flows.

11. Procedure of nomination of the Project team members

A project researcher and database developer to be employed to the Secretariat.

The appointed staff will follow the HELCOM risk management procedure.

12. Signature of the Project Manager(s)

13. Opinion of the Chairs of the relevant body

14. Opinion of the Executive Secretary

15. Decision of the Heads of Delegation

(Reference is to be given to the relevant Minutes of the Heads of Delegation's Meeting)

_____ to establish _____ not to establish

Annex 1: Links to State and Conservation ToRs and work plan:

ToRs

C. Coordinate and implement the monitoring and assessment activities of HELCOM related to biodiversity, and status of and effects on the marine environment with regards to eutrophication, hazardous substances, including radioactive substances, marine litter and underwater noise, as well as integrated assessment of human pressures and their impacts affecting the sea state, thereby implementing the HELCOM Monitoring and Assessment Strategy;

8. Cooperate with, and seek synergies with relevant work carried out in other international organizations and institutions and processes relevant for the group such as ICES, EEA, JRC, OSPAR, Convention on Biological Diversity, MSFD Common Implementation Strategy, etc.;

9. Develop and maintain the regional data and information systems needed to carry out its tasks;

Workplan actions

2.1b) Development of a coordinated monitoring programme.

Review data arrangements for existing components of HELCOM monitoring and develop data arrangements for those components without existing reporting structure e.g. for biodiversity (including birds, coastal fish, seals, benthic fauna and macrophyte monitoring), marine litter, underwater noise, hydrography

2.2 Develop a reporting system on prioritized human activities and pressures, building on the existing HELCOM reporting, to regularly collect harmonized data for HELCOM assessments

3.2 Review the data flows for each indicator and consider how these could be improved. State and Conservation to provide thematic guidance to the work and provide initial prioritization on how to fill the identified gaps.

9.1 Map and review data flows related to assessments and indicators, and further streamline and develop data flow infrastructure, as needed.