



Document title	Plan for further development of HELCOM Eutrophication test assessment
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Reference	

Background

State & Conservation 10-2019 considered resourcing of eutrophication test assessment development, as presented by the Secretariat (document 3J-1). The Meeting noted that HELCOM IN EUTROPHICATION has been working on developing eutrophication assessment methodology to apply indicator scaling. The meeting further noted that currently HELCOM eutrophication assessment is carried out using an online accessible dataview, provided by the database host ICES, but without indicator scaling. The meeting took note that ICES is willing to continue the work but the current contract between ICES and HELCOM is limited to data management and does not include development work. State & Conservation 10-2019 noted that IN EUTROPHICATION 12-2019 considered that possible solution would be petitioning for national funding for a small project or for adding development work to the contract between HELCOM and ICES, and that proceeding with a project proposal would have to be discussed at State and Conservation.

State & Conservation 10-2019 considered possibilities to provide national resources for the work. The meeting welcomed the offer by Sweden to provide national co-financing for the proposed work and the offer by Germany to explore the possibility to provide co-financing.

State & Conservation 10-2019 invited IN Eutrophication, together with relevant ICES representatives, to develop a project proposal which, should national funding to cover the project costs be secured, is to be presented to HELCOM Heads of Delegation for final approval.

To ensure uninterrupted continuation of the development work, IN Eutrophication 13-2019 agreed to submit a project proposal to HOD 56-2019, given that the national funding can be secured. The Meeting agreed that the Secretariat will draft a project proposal and send it to IN EUTROPHICATION for review by 3 June after which IN EUTROPHICATION can provide comments to the draft by 5 June.

HOD 56-2019 welcomed the information that Germany can provide the additional funding needed to take the project work for further development of HELCOM eutrophication test assessment forward.

HOD approved intersessionally the project proposal, as contained in this document.

Action requested

The Meeting is invited to take note of the approved project plan for further development of HELCOM Eutrophication test assessment

Proposal for further development of HELCOM Eutrophication test assessment

Background

HELCOM has carried out latest eutrophication assessment for the State of the Baltic Sea report published in 2018. The assessment was carried out following the semi-automatized assessment system developed in EUTRO-OPER project and operationalized together with the data host ICES and HELCOM Intersessional network on Eutrophication (IN-Eutrophication).

The current HELCOM eutrophication assessment was carried out using online accessible workflow and dataview provided by the database host ICES and was applied in State of the Baltic Sea report assessment.

IN-Eutrophication has been working on an improved indicator scaling methodology to be applied in the eutrophication assessment for HOLAS III. For that purpose, minimum and maximum indicator values have been collated from previous HEAT runs as well as specifying the needed modifications to the HEAT tool.

HELCOM IN-Eutrophication 11-2018 agreed to carry out a test assessment using improved indicator scaling and requested HELCOM Secretariat to establish a workspace for test assessment and approach ICES data center in beginning of 2019 for carrying out a modified workflow for test assessment using indicator scaling by applying EQRs. ICES data center carried out implementation of the test assessment for five open sea indicators and integrated assessment for IN-Eutrophication 12-2019 meeting which includes both ER (Eutrophication Ratio: Ratio between indicator value and threshold value) and EQR (Ecological Quality Ratio) results and is available in the test assessment workspace (<https://portal.helcom.fi/workspaces/IN-EUTROPHICATION3-163/default.aspx>). HELCOM IN-Eutrophication 12-2019 meeting took note of the information from ICES, that the resources to continue the test assessment work at ICES are limited and noted that the current contract between ICES and HELCOM is limited to data management and does not include development work. IN-Eutrophication 12-2019 noted that ICES is willing to continue the work, but to ensure the continuation of the development work at ICES, the procedure should be agreed on. The meeting further noted that uninterrupted continuation of the work would be important, but modifications of the workflow foreseen resulting from developing the EQR based assessment and future work on confidence assessment needs resources which are not currently available at HELCOM. The meeting considered that possible solutions would be getting funding for a small project, for which ICES would make a work estimate, or for including a certain amount of development work into the current agreement between HELCOM and ICES. The Meeting noted that proceeding with a project proposal would have to be discussed in State and Conservation.

STATE & CONSERVATION 10-2019 considered resourcing of eutrophication test assessment development, as presented by the Secretariat (document 3J-1 to that meeting). The Meeting took note of the information by ICES that, due to resource constraints, the ICES Data Center can commit a maximum of 130 work hour/year on the subject, with an hour cost of 65 euros, resulting in estimated costs of 8190 € for one years work.

STATE & CONSERVATION 10-2019 considered possibilities to provide national resources for the work. The Meeting noted that there is no reservation for this work in the HELCOM budget for 2019-2020. The

Meeting welcomed the offer by Sweden to provide national co-financing for the proposed work and the offer by Germany to explore the possibility to provide co-financing.

STATE & CONSERVATION 10-2019 invited IN EUTROPHICATION, together with relevant ICES representatives, to develop a project proposal which, should national funding covering the project costs be secured, is to be presented to HELCOM Heads of Delegation for final approval. The Meeting suggested that the project proposal should be further elaborated in the IN EUROPHICATION 13-2019 Meeting, which takes place 29 May.

As the funding is exclusively dependent on national contributions the intention is to develop a project-based solution, rather than modifying the contract between HELCOM and ICES. Both funding- and time limitations should be taken into considerations when elaborating a project proposal.

HELCOM IN-EUTROPHICATION 13-2019 meeting discussed the work topics to be carried out with possible further development and agreed on the following topics and priority ranking:

- Finalization of the eutrophication test assessment applied with indicator scaling for both open sea and coastal areas (first priority).
- Implementation of improved confidence assessment (second priority)
- The Eutrophication test assessment applied with data-driven coastal assessment (third priority)

The meeting also considered that in addition to the three main prioritized topics, there is a possibility that other development work related to assessment workflow, resulting from progress of indicator development or adoption of new indicators, emerges during the following one year period. The Meeting agreed that to make sure that this kind of development can be implemented, it should be included in the proposal as one of the working topics.

Activities with further development of HELCOM Eutrophication test assessment

The further development of eutrophication test assessment would be supported and guided by HELCOM IN-Eutrophication group and include the following topics:

- 1. Finalization of the eutrophication test assessment applied with indicator scaling for both open sea and coastal areas** (first priority). The task would include:
 - o Supporting the development of indicator scaling (e.g. by running test assessments)
 - o Indicator scaling implemented for open sea areas
 - o Indicator scaling implemented for coastal areas, based on information reported by HELCOM CPs
- 2. Implementation of improved confidence assessment** (second priority)
 - a. Supporting the development of confidence rating (e.g. by providing information on spatial and temporal distribution of data based on the information contained in the workflow)
 - b. Implementation of confidence assessment in the test assessment dataview as described in [IN-Eutrophication 13-2019 document 3-2](#)
 - i. Temporal confidence
 - ii. Spatial representability
 - iii. Accuracy of indicator result
 - iv. Methodological confidence
- 3. The Eutrophication test assessment applied with data-driven coastal assessment** (third priority)
 - a. Implementation of data driven coastal test assessment would be carried out based on reported monitoring data, similarly as in open sea areas.
 - b. Indicator targets would be added to the workflow based on information reported by HELCOM CPs.

- c. Indicator assessments would be added to the workflow for indicators that are currently not readily available in the ICES database (e.g. biological quality components of the WFD, especially macrophytes and macrozoobenthos).

4. Further development of assessment workflow as guided by IN-Eutrophication

- a. In addition to the above defined topics, other workflow development tasks can be included, e.g. implementation of new or modified indicator calculation method in the workflow, given that it is agreed by the IN-Eutrophication group.

Time scale of further development of eutrophication test assessment

The planned duration of the proposal would be one year starting in the third quarter of 2019 and will run for 1 year.

Resources needed

The project requires involvement of ICES beyond the existing HELCOM COMBINE data management contract.

For a 1-year project would include 130 work hours with an hourly rate of 63 euro, resulting in cost of **8 190 €**.

Sources of funding:

Contribution by Contracting Parties:

Sweden: 4.190 €

Germany: 4.000 €

Contribution by Contracting Parties covers fully the currently planned cost of 8.190 €.

