



Outcome of the 20th meeting of the Intersessional Network on Eutrophication (IN-EUTROPHICATION 20- 2021)

Introduction

- 0.1 In accordance with the outcome of the 19th Meeting of HELCOM Intersessional Network on Eutrophication (IN-EUTROPHICATION 19-2021), the 20th Meeting of the HELCOM Intersessional Network on Eutrophication (IN-EUTROPHICATION 20-2021) was held online on 26 May 2021 10:00-13:00 EEST.
- 0.2 The Meeting was attended by delegations from Denmark, Estonia, Finland, Germany, Poland and Sweden. The List of Participants is contained as **Annex 1**.
- 0.3 The Meeting was chaired by Ms. Vivi Fleming, Chair of IN Eutrophication. Ms. Laura Kaikkonen, HELCOM Associate Professional Secretary, acted as secretary of the Meeting.

Agenda Item 1 Adoption of the Agenda

- 1.1. The Meeting adopted the Provisional Agenda, as contained in document 1-1.

Agenda Item 2 Eutrophication indicator development

- 2.1 The Meeting took note of the outcomes of the Oxygen indicator Workshop (document 2-1).
- 2.2 The Meeting recalled that a second workshop is to be held back-to-back with an IN-EUTROPHICATION meeting in August 2021.
- 2.3 The Meeting took note that Denmark has secured funding to participate in developing the volume-based oxygen indicator approach together with ICES and are planning a joint meeting to see how to implement the volume-approach in the HEAT tool.
- 2.4 The Meeting took note that Estonia has collated the available CTD profile data for extracting the oxygen profiles from years 2016-19/20 and will submit them to the ICES database to test the approach. The Meeting acknowledged that data availability will be very important in developing the volume-based approach.
- 2.5 The Meeting took note that currently data should ideally be submitted to ICES in ODV-format and that a new fixed data format will be made available probably in August 2021 as part of updating the ICES data flows, allowing direct automated submission of data to the ICES database. The Meeting welcomed the offer by ICES to distribute the format to the group by the beginning of June 2021.
- 2.6 The Meeting invited Denmark, Estonia and ICES to continue the work on the volume-based approach intersessionally, acknowledging that ICES does not have direct funding to work on the oxygen indicator development, and the workload must thus consider whether working hours may be registered to other projects.
- 2.7 The Meeting took note that a workplan to develop the oxygen minimum concentration-based approach has been prepared by Birgit Heyden and Laura Hoikkala, and the work on the approach will be carried out during summer 2021.
- 2.8 The Meeting discussed the use of the two alternative methods in different areas and took note that Sweden primarily sees the volume-based approach as being applicable to the southwestern Baltic (Kattegat, the Sound, Arkona Basin), but it might still be applicable to the Gulf of Bothnia, assuming the concentration

threshold is set appropriately. The Meeting further noted that decisions on the used methods must consider results from test assessments to evaluate how the results converge in the different basins.

2.9 The Meeting took note that in certain areas the use of both oxygen debt and shallow water oxygen indicator may be warranted.

2.10 The Meeting agreed that it will be important to consider the methodology development and threshold values separately.

2.11 The Meeting agreed that the methodology development will be dealt with in intersessional meetings with the task teams, and the progress of this work will be evaluated in August at IN-EUTROPHICATION 21-2021.

2.12 The Meeting suggested that one option would be to present the indicator as a test indicator, even if final nationally accepted threshold values cannot be agreed upon by 7 September to be submitted to STATE&CONSERVATION 15-2021.

2.13 The Meeting discussed appointing a lead for the shallow water oxygen indicator and supported that the lead will be shared by the IN Eutrophication.

2.14 The Meeting recalled that Estonia has offered to lead oxygen debt indicator and invited the Secretariat to update the information in the indicator documentation.

2.15 The Meeting took note of outcomes of STATE&CONSERVATION 14-2021 regarding indicators related to the eutrophication assessment (document 2-2).

2.16 The Meeting discussed defining threshold values for all relevant assessment units for the total nitrogen and total phosphorus indicators and took note of a proposal to target values for the western Baltic Sea ([presentation 1](#)) for HOLAS III.

2.17 The Meeting discussed modelling results from the different national assessments and recalled that national analyses do not fully align with the TARGREV values.

2.18 The Meeting welcomed the offer by Denmark to contact their national consultancy to update the modelling results for TP and TN for the Bornholm and Arkona basins.

2.19 The Meeting took note that Estonia has previously attempted harmonizing the values used in coastal waters and would like to initiate a new exercise at HELCOM level to revise the TARGREV values, but this should be planned after HOLAS III.

2.20 The Meeting invited Sweden, Germany, Poland and Denmark to discuss the values for Arkona and Bornholm basins intersessionally and to present the results at IN-EUTROPHICATION 21-2021. These discussions will take into consideration the possible updates from the Danish modelling results.

2.21 The Meeting recalled similar issues with regard to the target values in the eastern Gotland basin and invited Sweden and Poland to discuss the matter intersessionally.

2.22 The Meeting took note that the German study reservation on the cyanobacterial bloom index indicator will be dealt with in collaboration with the PEG group. The Meeting took note that the German PEG representatives would like to comment on the indicator, and the results of the discussions will be presented in the autumn to IN Eutrophication and to STATE&CONSERVATION.

2.23 The Meeting took note that the Danish study reservation on the indicator will need to get official confirmation before it can be lifted and invited Denmark to inform the Secretariat (laura.kaikkonen@helcom.fi) and indicator lead Finland (vivi.fleming@syke.fi) on the status of lifting the study reservation as soon as possible.

2.24 The Meeting took note of the status of the phytoplankton spring bloom intensity indicator, and recalled that while the methodology is set, further work on ecosystem modelling is required to set the threshold values, particularly for the open sea basins.

2.25 The Meeting took note that Sweden should have access to the BALTSEM model as a part of a contract with BNI, and thus the use of BALTSEM for the chl-a could be feasible. The Meeting invited the Chair to contact BNI with regard to using BALTSEM for setting the threshold values.

Agenda item 3 Splitting assessment units

3.1 The Meeting took note of the outcomes of STATE&CONSERVATION 14-2021 regarding splitting the Bornholm Basin for the eutrophication assessment (document 3-1).

3.2 The Meeting recalled that the TARGREV project used clustered values for the northern part of the basin, which supports using the original values for the remaining larger assessment unit of Bornholm Basin.

3.3 The Meeting noted that it would be beneficial to have new values for the Pomeranian Bay since the TARGREV targets are not representative for this area and took note of ongoing ERGOM modelling work in Germany, acknowledging that it is uncertain by when these results will be ready.

3.4 The Meeting took note that Germany will lead setting the values for the Pomeranian Bay and invited Germany and Poland to discuss threshold values for the new assessment unit and to present the results of these discussions at IN-EUTROPHICATION 21-2021.

3.5 The Meeting recalled that the values will be revisited after HOLAS III as a part of revising the TARGREV values.

3.6 The Meeting took note of the progress in splitting the eastern Gulf of Finland for eutrophication assessment (document 3-2)

3.7 The Meeting discussed the threshold values for the open sea parts and took note of a suggestion by Estonia that in order to decide on the values, available data from the remaining offshore areas should be collated to scrutinize whether statistically significant differences are evident.

3.8 The Meeting further took note that Estonia would like to revisit also the eastern values excluding Russian territorial waters, which were not used in the TARGREV project. The Meeting recalled that no data had been reported from the easternmost parts of the GoF, and if these areas will be excluded from the open sea assessment unit, there should be no problem in using the existing values.

3.9 The Meeting took note of the Estonian position that they are concerned whether data-informed threshold values can be set in time to be included for HOLAS III.

3.10 The Meeting invited Finland to coordinate the work on splitting the Gulf of Finland and to discuss the target values together with Russia and Estonia.

3.11 The Meeting recalled that the areas II/IIIa in in Figure 2 of the annex to document 3-2 will be considered Russian areas, and hope that Russia will produce a eutrophication assessment for these areas.

Agenda Item 4 Improvements in the HEAT assessment procedure

4.1 The Meeting took note of the feedback from State&Conservation regarding recent developments in the HEAT assessment procedure (document 4-1).

4.2 The Meeting discussed producing the demonstration on changing the aggregation rules (moving Secchi to indirect effects) for submission to STATE&CONSERVATION 15-2021.

4.3 The Meeting welcomed the offer by ICES to run the assessment to illustrate the effects of moving the Secchi depth to indirect effects and present the results at IN-EUTROPHICATION 21-2021.

4.4 The Meeting further took note that several indicators (e.g. oxygen debt, cyanobacteria bloom index) are not yet included in the R version of the assessment available at GitHub, but that it would be easier to modify the runs of the assessment in R. The Meeting took note that ICES (Hjalte Parner) will evaluate the possibilities of demonstrating the change with the old HEAT approach using data from years 2011-16. The Meeting further welcomed the offer that ICES and Birgit Heyden will continue to work on

improvements of the assessment in R and on the confidence assessment in evaluating differences between the assessments.

4.5 The Meeting took note that document 4-2 and the accompanying presentation slides could not be considered during the meeting due to time constraints and invited the Contracting Parties to comment on the proposed accuracy confidence and potential inclusion of methodological confidence in HEAT. Comments may be sent to Birgit Heyden (heyden@aquaecology.de) with the Secretariat cc'd (laura.kaikkonen@helcom.fi).

Agenda Item 5 Input from HELCOM projects, groups, and processes relevant to eutrophication

5.1 The Meeting took note that information on the project and processes will be addressed at the next meeting.

5.2 The Meeting noted that due to delays there was no time to consider document 5-2 "Baltic Data Flows Activity 4 content and progress" but participants are requested to take note of the document and presentation ([presentation 2](#)) available from the IN-EUTROPHICATION 20-2021 meeting site.

Agenda Item 6 Any other business

6.1 The Meeting discussed how the assessment of coastal waters should be dealt with in HOLAS III and supported agreeing on a common approach for assessing the status of coastal waters.

6.2 The Meeting took note of a proposal presented by Germany to use a similar approach as in HOLAS II by using the results from WFD as far as possible, but with the exception to assess coastal waters using a data-driven approach for the less complex physicochemical indicators, such as nutrients, Secchi depth, oxygen and chl-a. For the biological quality components (macrophytes, macrozoobenthos), the indicator results could be collected from the Contracting Parties from the WFD reporting as it was done during HOLAS II.

6.3 The Meeting agreed that the HEAT tool will be used also for the coastal WFD results or data-driven assessment. The Meeting noted that in this case the same threshold values will be applied as in HOLAS II WFD water types or water bodies. The Meeting further acknowledged that all CPs get to decide themselves whether to apply the data driven approach and invited CPs to determine national positions to further discuss the matter at the next meeting.

6.4 The Meeting discussed not meeting deadlines for data reporting for the year 2021 for HOLAS III and whether data scarcity will result in spatial biases. The Meeting recalled that the deadline for reporting data from the year 2021 is in the end of May 2022.

6.5 The Meeting took note that at least two Contracting Parties would not be able to meet the given deadlines. The Meeting further noted that those Contracting Parties who are able to report 2021 in time are in favour of including that year in the assessment period.

6.6 The Meeting suggested reviewing where data gaps are to be expected and discussing an option to that for basins where data are available, data from all years will be used, but for those basins with data scarcity, the assessment would not include the year 2021.

6.7 The Meeting agreed to come back to the issue at IN-EUTROPHICATION 21-2021 and invited the Secretariat to prepare a document summarizing the data availability from the CPs, as reported to STATE&CONSERVATION 14-2021.

6.8 The Meeting invited the Secretariat to circulate a doodle poll to decide on the time of the next meeting for the last three weeks of August.

Agenda Item 7 Outcome of the Meeting

7.1 The outcome of the meeting was prepared by the Secretariat and adopted via correspondence.

Annex 1 List of participants

Representing	Name	Organisation	Email address
Countries			
Denmark	Stiig Markager	Aarhus University	markager@bios.au.dk
Denmark	Lasse Tor Nielsen	Ministry of Environment and Food	latni@mim.dk
Estonia	Stella-Theresa Stoicescu	Tallinn University of Technology	Stella-Theresa.Stoicescu@taltech.ee
Estonia	Urmass Lips	Tallinn University of Technology	urmas.lips@taltech.ee
Finland	Vivi Fleming*	Finnish Environment Institute (SYKE)	vivi.fleming@syke.fi
Finland	Laura Hoikkala	Finnish Environment Institute (SYKE)	laura.hoikkala@syke.fi
Germany	Birgit Heyden	Aqua Ecology	heyden@aquaecology.de
Germany	Marina Carstens	Ministry of Agriculture and Environment Mecklenburg-Vorpommern	m.carstens@lm.mv-regierung.de
Germany	Wera Leujak	German Environment Agency	wera.leujak@uba.de
Poland	Kamil Wawryniuk	Institute of Meteorology and Water Management	kamil.wawryniuk@imgw.pl
Poland	Wojciech Kraśniewski	Polish Institute of Meteorology and Water Management	wojciech.krasniewski@imgw.pl
Sweden	Phillip Axe	Swedish Agency for Marine and Water Management	philip.axe@havochvatten.se
Sweden	Emilie Breviere	Swedish Meteorological and Hydrological Institute	emilie.breviere@smhi.se
Observers			
ICES	Hjalte Parner	ICES	hjalte@ices.dk
HELCOM Secretariat			
HELCOM	Matthew Richard	HELCOM Secretariat	matthew.richard@helcom.fi
HELCOM	Joni Kaitaranta	HELCOM Secretariat	joni.kaitaranta@helcom.fi
HELCOM	Laura Kaikkonen	HELCOM Secretariat	laura.kaikkonen@helcom.fi

* Chair