



Document title	Memo from second on-line meeting of the Lead- and Co-lead countries on the indicator development
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Background

As agreed at HOD 48-2015 the further indicator development in HELCOM is based on a Lead Country approach. The development is taken forward using HELCOM expert groups, projects and networks as a platform for discussion and review of the indicators during their development (paragraph 3.64). HELCOM core indicators will form the basis for the assessment of status of the environment carried out under HOLAS II project for the production of the 2nd HELCOM Holistic Assessment of the Ecosystem Health of the Baltic Sea. Indicators to be used in HOLAS II are to be presented for endorsement at State and Conservation 5-2016 or other relevant HELCOM subsidiary bodies and for adoption at HOD 51-2016.

The lead countries for the benthic habitat indicators and the national representatives are:

Indicator	Lead Country	LC representative	Co-Lead Country	CLC representative
Cumulative impact on benthic biotopes (pre-core)	Sweden		Estonia Finland Germany Latvia Lithuania	Kristjan Herkul, Georg Martin Samuli Korpinen, Aarno Kotilainen Thorsten Berg, Alexander Darr Juris Aigars Darius Daunys
Distribution, pattern and extent of benthic biotopes (pre-core)	Estonia	Georg Martin, Kristjan Herkul	Finland Germany Latvia Lithuania Sweden	Samuli Korpinen Alexanader Darr Juris Aigars Darius Daunys Antonia Nyström Sandman, Nicklas Wijkmark
State of the soft-bottom macrofauna community (core)			Estonia Finland Germany	Kristjan Herkul Henrik Nygård Alexander Darr

Plans for indicator development was presented at the IN-BENTHIC 1-2016 meeting (16-17 February). Since this time, the Lead- and Co-Lead countries have held two online meeting (14 March and 16 June) to discuss the development of the indicators. This document presents the memo from the second on-line meeting where work to be carried out and presented at this workshop was detailed.

Action required

The workshop is invited to take note of the information.

Memo from the second skype for business meeting on 15.6.2016 indicators

- Cumulative impact on benthic biotopes, and
- Distribution, pattern and extent of benthic biotopes

Participants: Georg Martin (EE), Birgit Heyden (DE), Alexander Darr (DE), Kai Hoppe (DE), Samuli Korpinen (FI), Antonia Nyström-Sandman (SE), Lena Avellan (HELCOM)

Cumulative impact on benthic biotopes

Updates

- Estonian project funding - decision anticipated this or next week, Georg to inform via e-mail
- Latvian project funding – no information
- German national project
 - o National preliminary report anticipated by end of June in German, to be circulated among participants for information, possibly summary in English to be prepared
 - o Currently ongoing work on collecting data on human pressures (fishing intensity, dredging, windfarms) in German areas in QGIS. Pressure categories not decided, options under consideration (HELCOM BSPI/BSII).
 - o The sensitivity scoring to be used is not decided, options under consideration from UK Marlin project, or paper by Schiele et al to which updates for some German key species are anticipated by end of August (IOW project)
 - o Pressures and sensitivities to be considered based on biotope maps corresponding to HUB level 5-6 details and 1x1 km grid
- TAPAS update related to BSPII
 - o TAPAS will improve the BSII methodology:
 - improved sensitivity scores (online survey + literature)
 - water depth + seabed exposure considered
 - temporal issues considered (not yet done)
 - o TAPAS will run case studies: one of them will be the entire Baltic Sea (depends on data availability for the project).
 - o TAPAS can also run a test of the benthic cumulative impact indicator. This requires that: online survey will give sufficient responses, pressure data is ready (broad-scale habitat data is already ready).
- BOOST update
 - o ICES and WP 3 meeting held 31.5-3.6. to discuss progress made
 - o Echapra meeting end of June on BH3, aim to share experiences, update after the meeting

Discussion and way forward

To find the most appropriate assessment protocol for the indicator different methods should be used for test case areas. The cumulation steps are similar in the methods.

- For a coarse scale analysis, the BSPII method was considered appropriate, scientific paper by Stock 2016 shared to the group provides links to the software used.
- For a fine scale analysis, the German national approach is suitable using QGIS

Intersessional work to be done by several experts for test case areas in order to compare results at a workshop in autumn. The following test cases were mentioned:

- Finland/Samuli/TAPAS project: whole Baltic Sea assessment using coarse scale BSP II methodology, and a fine scale area available in GoF outside Helsinki
- Germany/Birgit: fine scale analysis for specific areas in German national waters, compared to shapefiles of BSP II, possible comparison of the national- and the BSP II approach by means of the Impact Mapper Software depends on the availability of resources and timing
- Germany/Kai/BOOST: Mecklenburg test case for physical impacts
- Sweden/Antonia: Hahnö Bight (or bay), to coordinate with BOOST WP 3.2 developing a test case for this area using fishing pressures

General consideration is that the most suitable method for an assessment protocol can be made once results from the test cases are compared. The comparisons are needed so that time remains to consider any additional approaches needed if it is found that neither is suitable. The BSP II approach is considered suited for large scale analyses, and being a simpler and less work heavy approach than the fine scale analysis using QGIS.

It was noted that the analyses should allow to differentiate between physical impacts on the seafloor and other pressures. In particular it was noted that anoxia is considered not to be a relevant spatial layer to include in the analysis of physical impact, but that it is relevant to consider in the cumulation of all pressures. Further development in the German national project will explore if anoxia should be included as an additional pressure layer and consider weighting sensitivity accordingly.

The indicator is considered to be a pressure-indicator, however the inclusion of sensitivity values also incorporates a status-aspect.

Distribution, pattern and extent of benthic biotopes

The Lead Country Estonia working through the TAPAS project presented a concept for the indicator circulated earlier and reflected on comments received so far. The meeting welcomed the concept in general and invited Estonia to develop it further and present test cases where it has been applied in addition to the currently available example of rocky substrate.

In the further development the meeting commented that biological aspects defining biotopes should be taken into account. This could be done through the 'quality' aspect in the indicator concept for broad habitats or by assessing biotopes on a finer scale than the broad habitat types that are defined by substrate. The proposal to use broad habitats corresponding most closely to HUB level 3 as the unit in the indicator stems from the aim to have a dataset that covers the entire Baltic Sea. Estonia was invited to explore both options in the further development work.

It was further noted that analyses could be done at different scales of coarseness depending on the habitat/biotope that is being assessed and that different habitats/biotopes might be relevant in different assessment units. The habitats/biotopes to be assessed need to be agreed at some time point.

The indicator is considered to be a status-indicator, however the inclusion of impacts also incorporates a pressure-aspect.

TAPAS workshop in autumn 2016

A workshop related to TAPAS work on the indicator 'Distribution, pattern and extent of benthic biotopes' is planned for early autumn. The last week of September was tentatively noted as the most suitable time for the participants of the meeting. As the two indicators (and also the BQI indicator) are found to be closely connected the meeting concluded that it would be relevant for the workshop to discuss all relevant indicators.

The tentative aim of the workshop is to present the outcome of the test cases where the indicator assessment protocols have been applied, discuss next steps based on the findings and develop a common understanding of the benthic assessment.

Intersessional work to prepare for the workshop will be completed through correspondence and no further intersessional on-line meeting was considered needed. Specific questions, e.g. on using software, will be discussed between concerned experts directly keeping the Secretariat informed of ongoing development.