

Review of HELCOM Baltic Sea Environment Fact Sheets

Follow-up

Follow-up on actions agreed by State & Conservation

Theme	Name	Lead	updated	Actions approved by: State & Conservation 9-2018 and State & Conservation 10-2019	Follow-up
biodiv	Abundance and distribution of Marenzelleria species	PL/SE	2012	The information is partly available in the "State of the Baltic Sea" report". The three fact sheets should be combined under "Abundance and spatial distribution of established non-indigenous species, particularly of invasive species." Moreover, could be in a later stage, developed as an indicator to answer the needs of the secondary criteria D2C2 of the MSFD.	The authors of the BSEFS have been contacted and combining the three BSEFS into one have been initially discussed.
biodiv	Abundance and distribution of round goby	EN	2018		
biodiv	Abundance and distribution of the Zebra mussel (Dreissena polymorpha)	SE/PL/LT	2012		
biodiv	Biopollution level index	LT/FI	2012	Could be kept, if update is possible. Alternatively, the BSEFS could be further developed to answer the needs of the MSFD criteria D2C3.	The authors to be contacted
biodiv	Observed non-indigenous and cryptogenic species in the Baltic Sea	Sec	2012	The relevant indicator report as well as chapter 4.5 in the "state of the Baltic Sea report" is more up to date. The BSEFS should not be updated further and marked as such.	
biodiv	Population development of Great Cormorant	DE	2019	To be updated by Germany	The BSEFS has been updated on the HELCOM webpage
biodiv	Population development of Sandwich Tern	DE	2011	The relevant indicator fact sheet as well as chapter 5.5 in the "state of the Baltic Sea report" is more up to date. The BSEFS should not be updated further and marked as such.	

Follow-up on actions agreed by State & Conservation

biodiv	Population Development of Baltic Bird Species: Southern Dunlin (<i>Calidris alpina schinzii</i> L., 1758)	DE	2011	The relevant indicator fact sheet as well as chapter 5.5 in the "state of the Baltic Sea report" is more up to date. The BSEFS should not be updated further and marked as such.	
biodiv	Population Development of Baltic Bird Species: White-tailed Sea Eagle (<i>Haliaeetus albicilla</i>)	EN	2011	This BSEFS could be combined with the indicator fact sheets "Productivity of White-tailed Sea Eagle"	
eutro	An unusual phytoplankton event five years later: the fate of the atypical range expansion of marine species into the south-eastern Baltic	PEG	2010	The BSEFS should be not updated any more and marked as such.	
eutro	Bacterioplankton growth	SE	2015	S&C 10: noted that not many Contracting Parties are monitoring bacterial plankton growth and hence developing an indicator is not currently feasible. The Meeting agreed to contact the experts responsible for the BSEFS on whether the fact sheet can continue to be updated. The Meeting noted that the BSEFS should be kept and updated if possible as supporting information.	Authors of the BSEFS to be contacted
eutro	Concentrations, temporal variations and regional differences from satellite remote sensing	JRC	2006	S&C 9: Goes to IN EUTRO for evaluation of how the information could be incorporated into the relevant fact sheet. S&C 10 agreed to follow the proposal by IN Eutrophication 12-2019: Remote sensing on chlorophyll-a is already included in the chlorophyll-a indicator, and hence new indicator should not be developed. It can be checked if information from the BSEFS would give added value that could be included to the existing indicator. Checking could be started by contacting JRC which is responsible for the BSEFS.	

Follow-up on actions agreed by State & Conservation

eutro	Cyanobacteria biomass 1990-2016	PEG	2017	<p>S&C 10 took note of information from Latvia and Poland that it is not clear to PEG group why BSEFS on cyanobacterial biomass 1990-2016, is suggested to no longer be maintained. The Meeting further noted comment from PEG that data gathering has been voluntary and PEG wants to keep updating the BSEFS and to develop it further. The Meeting agreed to amend the suggested action by State and Conservation accordingly and contact the PEG group for concrete suggestions to include in the action section.</p>	<p>S&C 11, document 6J-2, Proposals by PEG:</p> <p>The BSEFS should be kept since it presents detailed and summarized information on composition of dominating diazotrophic cyanobacteria genera in the Baltic Sea. This taxonomic information is not used or presented in the indicator "Cyanobacterial bloom indicator". The PEG group wants to continue to update the BSEFS "Cyanobacteria biomass 1990-20xx".</p> <p>In the HELCOM web page should be corrected the name of link to this BSFS. Now it is "Cyanobacteria biomass indicator (Baltic Sea Environment Fact Sheet 2013, 2012 and 2011)".</p>
eutro	Cyanobacteria bloom index	FI	2008	<p>S&C 9: Goes to IN EUTRO for evaluation of how the information could be incorporated into the relevant indicator report.</p> <p>S&C 10 agreed to follow the proposal by IN Eutrophication 12-2019:</p> <p>The BSEFS is not seen to give any additional value for the relevant indicator.</p>	<p>S&C 11, document 6J-2, Proposals by PEG:</p> <p>Indeed, the cyanobacteria biomass data are delivered by PEG for use in the "Cyanobacterial bloom index". However, this indicator is still not well developed and not satisfying. It is still not fully adopted by HELCOM (not a core indicator). The original idea was to combine satellite data with biomass data taken from water samples. It seems that this integration is not realized. Both methods stand separate; their combination is not evident.</p> <p>Obviously, the Cyanobacterial Bloom Index in HOLAS II (Fig. 4.1.13) is based only on satellite data and the biomass data are neglected. The calculation of the Cyanobacterial Bloom Index is not sufficiently explained. What does the number tell us? How is the GES defined? Is there a "reference year" for GES? The Cyanobacterial Bloom Index is not transparent for the user. In contrast, the original biomass data presented in the BSEFS of PEG are easily to understand for any user and practitioner. They are indispensable. They are annually updated whereas indicators such as the Cyanobacterial bloom index are updated according to a longer assessment period.</p>

Follow-up on actions agreed by State & Conservation

eutro	Cyanobacterial blooms in the Baltic Sea in 2017	SE	2017	<p>S&C 9: Goes to IN EUTRO for evaluation of how the information could be incorporated into the relevant indicator report.</p> <p>S&C 10 agreed to follow the proposal by IN Eutrophication 12-2019:</p> <p>The satellite data based BSEFS includes relevant information summarizing the cyanobacterial blooms of the previous year that is not presently integrated to the relevant indicator. The Meeting did not come up with a solution on how to easily incorporate the BSEFS to the indicator report and what would be the added value. It was agreed that the scientists responsible for the BSEFS could be contacted for ideas on how to proceed.</p>	
eutro	Impacts of invasive phytoplankton species on the Baltic Sea ecosystem in 1980-2008	PEG	2009	This should be combined with the Biopollution Index	S&C 11, document 6J-2, Proposals by PEG: PEG agreed not to update but can be kept as a report.
eutro	Atmospheric nitrogen depositions to the Baltic Sea during 1995-2015	EMEP	2017	Still relevant and should be updated regularly.	Considered by PLC and regularly updated
eutro	Nitrogen emissions to the air in the Baltic Sea area	EMEP	2018	Still relevant and should be updated regularly.	Considered by PLC and regularly updated
eutro	Phytoplankton community composition in relation to the pelagic food web in the open northern Baltic sea	FI	2015	S&C 9: Goes to PEG and IN EUTRO to see how it could be incorporated into the indicator report	<p>IN Eutrophication 12: Cannot be incorporated to eutrophication indicators</p> <p>S&C 11, document 6J-2, Proposals by PEG: PEG and members from SYKE agreed to sop updating.</p>

Follow-up on actions agreed by State & Conservation

eutro	Shifts in the Baltic Sea summer phytoplankton communities in 1992-2006	PEG	2007	S&C 9: Goes to PEG and IN EUTRO to see how it could be incorporated into the indicator report	IN Eutrophication 12: Cannot be incorporated to eutrophication indicators S&C 11, document 6J-2, Proposals by PEG: PEG agreed not to update but can be kept as a report.
eutro	Spatial distribution of the winter nutrient pool 2017	SMHI	2018	S&C 9: Goes to PEG and IN EUTRO to see how it could be incorporated into the indicator report S&C 10 agreed to follow the proposal by IN Eutrophication 12-2019: Integration of the BSEFS to indicator reports on nutrients will be considered. Integration is problematic, as there is a mismatch between data used for the indicators and the fact sheet, and the BSEFS includes data for only one season. Spatial maps could be produced for 6 year cycles, interpolating data for the latest MSFD cycle, and added as illustration to the indicator reports, given that they do not give contradictory information. Descriptive information from the BSEFS could be added to the indicator report.	
haz	Atmospheric deposition of benzo(a)pyrene on the Baltic Sea	EMEP	2016	Should be updated regularly and/or included in the PLC (e.g. once per cycle). Should be discussed in the PLC group	Considered by PLC and to be regularly updated
haz	Atmospheric deposition of heavy metals on the Baltic Sea	EMEP	2016	Should be updated regularly and/or included in the PLC (e.g. once per cycle) Should be discussed in the PLC group	Considered by PLC and to be regularly updated
haz	Atmospheric deposition of PCB-153 on the Baltic Sea	EMEP	2015	Should be updated regularly and/or included in the PLC (e.g. once per cycle) Should be discussed in the PLC group	Considered by PLC and to be regularly updated

Follow-up on actions agreed by State & Conservation

haz	Atmospheric deposition of PCDD/Fs on the Baltic Sea	EMEP	2018	Should be updated regularly and/or included in the PLC (e.g. once per cycle) Should be discussed in the PLC group	Considered by PLC and will be regularly updated
haz	Atmospheric emissions of Benzo(a)pyrene in the Baltic Sea region	EMEP	2016	Should be updated regularly and/or included in the PLC (e.g. once per cycle) Should be discussed in the PLC group	Considered by PLC and will be regularly updated
haz	Atmospheric emissions of heavy metals in the Baltic Sea region	EMEP	2018	Should be updated regularly and/or included in the PLC (e.g. once per cycle) Should be discussed in the PLC group	Considered by PLC and will be regularly updated
haz	Atmospheric emissions of PCB-153 in the Baltic Sea region	EMEP	2015	Should be updated regularly and/or included in the PLC (e.g. once per cycle) Should be discussed in the PLC group	Considered by PLC and will be regularly updated
haz	Atmospheric emissions of PCDD/Fs in the Baltic Sea region	EMEP	2018	Should be updated regularly and/or included in the PLC (e.g. once per cycle) Should be discussed in the PLC group	Considered by PLC and will be regularly updated
haz	Total amounts of the artificial radionuclide caesium -137 in Baltic Sea sediments	MORS EG	2014	This BSEFS should not be updated anymore and marked as such, since indicator fact sheet is available or could be included in such if relevant. Should be discussed in the PLC group	
haz	Temporal trends in contaminants in Herring in the Baltic Sea in the period 1980-2010	ICES	2012	S&C 10 agreed to follow the proposal by EN HZ: The data used in the BSEFs is a selection of the data used in the r-script and the indicators, and provides similar information as given in the r-script and what is included in the indicators. The information is important to update but it is suggested that the r-scripts annual update (as discussed at last meeting) is used as a base for the BSEF to avoid double work. Which then also would include time trends for other species.	ICES has been contacted. The author of the BSEFS has retired: 1) Author may still be interested in being contracted to doing this as he has some work time, associated to NIVA Denmark. 2) ICES Secretariat could also perform this task – ICES would need to take a look at the details and come back with an estimate of work.

Follow-up on actions agreed by State & Conservation

haz	Illegal discharges of oil in the Baltic Sea	RESPONSE	2016	This BSEFS should be combined with relevant indicator and updated yearly.	
haz	Liquid discharges of Cs-137, Sr-90 and Co-60 into the Baltic Sea from local nuclear installations	FI	2013	Should be updated regularly and/or included in the PLC (e.g. once per cycle) Should be discussed in the PLC group.	
haz	Trace metal concentrations and trends in Baltic surface and deep waters	EN HAZ	2009	S&C 10 agreed to follow the proposal by EN HZ: This BSEFS should not be updated anymore and marked as such, since indicator fact sheet is available including the same 3 metals as in the BSEFS or could be included in such if relevant	
hydro	Sea Surface Temperature in the Baltic Sea in 2018	DE	2019	This BSEFS should be kept and possible combined with "The Baltic Sea Ice Season", "Wave climate in the Baltic Sea" and the acidification BSEFS to a climate BSEFS.	Updated
hydro	Hydrography and Oxygen in the Deep Basins	SE	2018	Combined with the work on acidification indicators and updated every third year. Oxygen could be included in the relevant indicator fact sheets.	
hydro	The Baltic Sea ice season 2011-2012	FI	2012	This BSEFS should be kept and possible combined with "Sea Surface Temperature", "Wave climate in the Baltic Sea" and the acidification BSEFS to a climate BSEFS. Finland will confirm on progress.	
hydro	Total and regional runoff to the Baltic Sea	SE	2018	This BSEFS should not be updated and included in the PLC updates. Should be discussed in the PLC group.	

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hydro	Water Exchange between the Baltic Sea and the North Sea, and conditions in the Deep Basins	GER	2018	This BSEFS is still valid but should be developed as a core indicator for the next HOLAS assessment. Sweden is working on the development.	
hydro	Wave climate in the Baltic Sea in 2018	FI/SE/D E	2019	This BSEFS should be kept and possible combined with Sea Surface Temperature, Baltic Sea Ice Season and the acidification BSEFS to a climate BSEFS.	Updated
maritime	Emissions from Baltic Sea shipping in 2015	FI	2016	This BSEFS should be combined with BSEFS about atmospheric deposition updated by EMEP.	