



Document title	Analysis of BSEFS and recommendations for action
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Background

The aim of the HELCOM Baltic Sea environment fact sheets (BSEFS) is to provide information on the recent state of and trends in the Baltic marine environment. So far, the BSEFS inform about hydrographic variations (temperature, salinity, inflows and runoff) which largely regulate the marine life, inputs and concentrations of nutrients and hazardous substances, plankton blooms and species composition, radioactivity and illegal oil discharges. However, the recent published “State of the Baltic Sea” report and indicator fact sheets complement or sometimes duplicate the information in the BSEFS but BSEFS do not contain thresholds.

STATE & CONSERVATION 9-2018 took note of the review of the Baltic Sea environment fact sheets (BSEFS) and considered the overlap between BSEFS and the recently published “State of the Baltic Sea” report and core indicators, and agreed that wherever possible the BSEFS should be integrated into relevant indicator reports should be so, and that priority should be given to keeping the indicator report up to date. The meeting agreed on actions to integrate the overlapping BSEFS to the indicator reports and further agreed that the respective leads, as identified in the document, will commence with implementing the actions. The meeting invited the Leads to report on progress of the work to State and Conservation 10-2019.

This document contains the version of the review with actions approved by STATE & CONSERVATION 9.

Action requested

The Meeting is invited to:

- Take note of the review of the BSEFS
- The respective leads are invited to report to the Meeting on progress regarding the action for their factsheet(s).

Review of the Baltic Sea environment fact sheets

The Baltic Sea environment fact sheets give a good overview about trends of certain parameters in the Baltic Sea area. However, with the recently published “State of the Baltic Sea report” and the indicator fact sheets it is necessary to review the setup of BSEFS. It should be avoided to present similar or identical information in BSEFS and indicator fact sheets. Furthermore, it should be checked if BSEFS, not updated for a longer time, are still valid and with which interval these should be updated.

This document presents recommendations for every BSEFS. The meeting is invited to discuss the different options and decide which BSEFS should be kept in their current form, included in a relevant indicator fact sheet or possibly deleted. BSEFS not used any more should be still accessible but clearly marked as “not further updated”



Baltic Marine Environment Protection Commission

Working Group on the State of the Environment and Nature
Conservation

Hamina, Finland, 6-10 May 2019

STATE & CONSERVATION
10-2019

Table 1 Overview of the BSEFS extracted from the HELCOM web side 19-9-2018.

Theme	Name	Lead	updated	Actions approved by State & Conservation 9-2018	Link
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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/biodiversity/abundance-and-distribution-of-marenzelleria-species/
biodiv	Abundance and distribution of round goby	EN	2018		http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/biodiversity/abundance-and-distribution-of-round-goby/
biodiv	Abundance and distribution of the Zebra mussel (<i>Dreissena polymorpha</i>)	SE/PL /LT	2012		http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/biodiversity/abundance-and-distribution-of-the-zebra-mussel/
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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/biodiversity/biopollution-level-index/
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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/biodiversity/observed-non-indigenous-and-cryptogenic-species-in-the-baltic-sea/
biodiv	Population development of Great Cormorant	DE	2014	To be updated by Germany	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/biodiversity/population-development-of-great-cormorant/
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	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/biodiversity/population-development-of-sandwich-tern/

				BSEFS should not be updated further and marked as such.	
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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/biodiversity/population-development-of-southern-dunlin/
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"	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/biodiversity/population-development-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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/an-unusual-phytoplankton-event/
eutro	Bacterioplankton growth	SE	2015	Should be developed further as a core indicator if possible. Germany to check nationally and reports to State & Conservation.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/bacterioplankton-growth/
eutro	Concentrations, temporal variations and regional differences from satellite remote sensing	JRC	2006	This BSEFS should be kept but must be updated regularly. Could be used as a basis for an indicator in the future. Goes to IN EUTRO for evaluation of how the information could be incorporated into the relevant fact sheet.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/chlorophyll-a/
eutro	Cyanobacteria biomass 1990-2016	PEG	2017	This BSEFS should not be updated anymore and marked as such, since indicator report is available or could be included in such if relevant.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/cyanobacteria-biomass/

				Goes to IN EUTRO for evaluation of how the information could be incorporated into the relevant indicator report.	
eutro	Cyanobacteria bloom index	FI	2008	<p>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.</p> <p>Goes to IN EUTRO for evaluation of how the information could be incorporated into the relevant indicator report.</p>	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/cyanobacteria-bloom-index/
eutro	Cyanobacterial blooms in the Baltic Sea in 2017	SE	2017	<p>This BSEFS should be kept updated until the information is integrated to the relevant indicator report.</p> <p>Goes to IN EUTRO for evaluation of how the information could be incorporated into the relevant indicator report.</p>	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/cyanobacterial-blooms-in-the-baltic-sea/
eutro	Impacts of invasive phytoplankton species on the Baltic Sea ecosystem in 1980-2008	PEG	2009	This should be combined with the Biopollution Index	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/impacts-of-invasive-phytoplankton-species-on-the-baltic-sea-ecosystem-in-1980-2008/
eutro	Atmospheric nitrogen depositions to the Baltic Sea during 1995-2015	EMEP	2017	Still relevant and should be updated regularly.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/nitrogen-atmospheric-deposition-to-the-baltic-sea/
eutro	Nitrogen emissions to the air in the Baltic Sea area	EMEP	2018	Still relevant and should be updated regularly.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/nitrogen-emissions-to-the-air-in-the-baltic-sea-area/
eutro	Phytoplankton community composition in relation to the pelagic food web in the open northern Baltic sea	FI	2015	<p>This BSEFS should not be updated anymore and marked as such, since indicator report is available or could be included in such if relevant.</p> <p>Goes to PEG and IN EUTRO to see how it</p>	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/phytoplankton-community-composition/

				could be incorporated into the indicator report	
eutro	Shifts in the Baltic Sea summer phytoplankton communities in 1992-2006	PEG	2007	<p>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.</p> <p>Goes to PEG and IN EUTRO to see how it could be incorporated into the indicator report.</p>	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/shifts-in-the-baltic-sea-summer-phytoplankton-communities-in-1992-2006/
eutro	Spatial distribution of the winter nutrient pool 2017	SMHI	2018	<p>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.</p> <p>Goes to PEG and IN EUTRO to see how it could be incorporated into the indicator report</p>	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/eutrophication/spatial-distribution-of-the-winter-nutrient-pool/
haz	Atmospheric deposition of benzo(a)pyrene on the Baltic Sea	EMEP	2016	<p>Should be updated regularly and/or included in the PLC (e.g. once per cycle).</p> <p>Should be discussed in the PLC group</p>	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/atmospheric-deposition-of-benzo(a)pyrene-on-the-baltic-sea/
haz	Atmospheric deposition of heavy metals on the Baltic Sea	EMEP	2016	<p>Should be updated regularly and/or included in the PLC (e.g. once per cycle)</p> <p>Should be discussed in the PLC group</p>	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/atmospheric-deposition-of-heavy-metals-on-the-baltic-sea/
haz	Atmospheric deposition of PCB-153 on the Baltic Sea	EMEP	2015	<p>Should be updated regularly and/or included in the PLC (e.g. once per cycle)</p> <p>Should be discussed in the PLC group</p>	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/atmospheric-deposition-of-pcb-153-on-the-baltic-sea/
haz	Atmospheric deposition of PCDD/Fs on the Baltic Sea	EMEP	2018	<p>Should be updated regularly and/or included in the PLC (e.g. once per cycle)</p>	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/atmospheric-deposition-of-pcdd-fs-on-the-baltic-sea/

				Should be discussed in the PLC group	
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	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/atmospheric-emissions-of-benzo(a)pyrene-in-the-baltic-sea-region/
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	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/atmospheric-emissions-of-heavy-metals-in-the-baltic-sea-region/
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	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/atmospheric-emissions-of-pcb-153-in-the-baltic-sea-region/
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	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/atmospheric-emissions-of-pcdd-fs-in-the-baltic-sea-region/
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	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/cesium-137-in-baltic-sea-sediments/
haz	Temporal trends in contaminants in Herring in the Baltic Sea in the period 1980-2010	ICES	2012	Important information should be updated more frequently, minimum every second year. Goes to EN HAZ for discussion on content and to check if reporting frequency is suitable.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/contaminants-in-herring/
haz	Illegal discharges of oil in the Baltic Sea	RESP ONSE	2016	This BSEFS should be combined with relevant indicator and updated yearly.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/illegal-discharges-of-oil-in-the-baltic-sea/

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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/liquid-discharges-of-cs-137-sr-90-and-co-60-into-the-baltic-sea/
haz	Trace metal concentrations and trends in Baltic surface and deep waters	EN HAZ	2009	Important information should be updated more frequently, minimum every second year.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/trace-metal-concentrations-and-trends-in-baltic-surface-and-deep-waters/
hydro	Sea Surface Temperature in the Baltic Sea in 2017	DE	2017	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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hydrography/development-of-sea-surface-temperature-in-the-baltic-sea/
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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hydrography/hydrography-and-oxygen-in-the-deep-basins/
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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hydrography/ice-season/
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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hydrography/total-and-regional-runoff-to-the-baltic-sea/
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.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hydrography/water-exchange-between-the-baltic-sea-and-the-north-sea-and-conditions-in-the-deep-basins/
hydro	Wave climate in the Baltic Sea in 2016	FI/SE/ DE	2017	This BSEFS should be kept and possible combined with Sea Surface Temperature, Baltic Sea Ice Season and	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hydrography/wave-climate-in-the-baltic-sea/

				the acidification BSEFS to a climate BSEFS.	
maritime	Emissions from Baltic Sea shipping in 2015	FI	2016	This BSEFS should be combined with BSEFS about atmospheric deposition updated by EMEP.	http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/maritime-activities/emissions-from-baltic-sea-shipping/