



# Implementation of the 2007 Baltic Sea Action Plan

  
Baltic Marine Environment  
Protection Commission

Baltic Sea Action Plan



October 2021





Published by:

Helsinki Commission – HELCOM  
Katajanokanlaituri 6 B  
00160 Helsinki, Finland

[www.helcom.fi](http://www.helcom.fi)

For bibliographic purposes this document should be cited as:  
“Implementation of the 2007 Baltic Sea Action Plan. HELCOM (2021)”

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# Introduction



The HELCOM Baltic Sea Action Plan (BSAP), adopted by the HELCOM Contracting Parties in 2007, is an ambitious and comprehensive regional programme of measures and actions for a healthy marine environment. The BSAP provides a concrete basis for HELCOM work. It incorporates the latest scientific knowledge and innovative management approaches into strategic policy implementation and stimulates goal-oriented multilateral cooperation around the Baltic Sea region.

Although the State of the Baltic Sea report in 2018 showed that the overall goal of the current BSAP, to reach good environmental status of the Baltic Sea by 2021, will not be reached, the plan has delivered unprecedented results. In 2018, the HELCOM Ministers therefore decided to update the BSAP by the end of 2021 at the latest, offering the possibility to adjust it and consider previously unaddressed challenges.

The state of the Baltic Sea and the pressures affecting it are monitored by HELCOM indicators and assessments while the achievement of the agreed commitments is tracked by means of regular reporting by the Contracting Parties and the HELCOM Working Groups to the HELCOM Explorer, an online tool launched in 2016 to keep track of the implementation of the actions.

This report focuses on the implementation of the actions from the 2007 BSAP as well as actions agreed in HELCOM Ministerial Meetings in 2010,

2013 and 2018. It is based on the most recent reporting conducted at the end of 2020 and the beginning of 2021.

The 2007 BSAP has four segments: Eutrophication, Hazardous substances, Biodiversity and nature conservation, and Maritime activities. In the process of updating the BSAP beyond 2021, the structure was scrutinized and some of the topics were shifted to other segments. This report follows the original structure of the 2007 BSAP in dividing the actions between segments. However, there are topics such as underwater noise that were not included in the 2007 BSAP and were thus not included in any segment, but these topics were included in some of the subsequent Ministerial Declarations. In these cases, the topics are listed under the segments following the division of topics in the updated BSAP.

In addition to the actions from the BSAP and commitments agreed in Ministerial Meetings, the report includes the results of the reporting conducted in 2019 on the implementation of national actions for selected HELCOM Recommendations. There is some overlap between the BSAP actions and the HELCOM Recommendations. Where the reporting on the implementation of the Recommendations is more detailed than the reporting on the BSAP actions, the reporting on the BSAP actions has been replaced by the reporting on the implementation of the Recommendations.





## HELCOM actions

### Joint and national actions

In the HELCOM Explorer, the HELCOM actions have been divided into national or joint actions:

- **National actions** are to be implemented by the respective Contracting Party;
- **Joint actions** are to be implemented in cooperation through HELCOM subsidiary bodies and HELCOM projects.

### Assessment of implementation

For each action, HELCOM Working Groups have developed criteria for assessing when the individual action should be considered as accomplished. The criteria represent three levels of achievement: accomplished, partly accomplished, and not accomplished.

For joint actions, 'Partly accomplished' is in general assigned when there is an ongoing activity to achieve the action while 'Not accomplished' means that there is no ongoing activity. The assessment of implementation of the joint actions has been conducted by the HELCOM Working Groups.

The countries have assessed the implementation of the national actions and provided supporting information for the HELCOM Explorer to explain how the action is implemented nationally. National actions are also assessed in terms of accomplishment at the regional level. In this case, the number of countries that have implemented the action is considered, in the simplest case according to the following:

- **Accomplished:** All Contracting Parties have implemented the action,
- **Partly accomplished:** Some Contracting Parties have implemented the action,
- **Not accomplished:** No Contracting Party has implemented the action.

In this report, for the "partly accomplished" national actions, the number of countries that

have implemented the action is shown as yellow circles (see legend on the right). If a country has reported that an action is not applicable to them, the total number of circles is reduced, showing for instance only eight circles instead of nine.

### Categorization of actions

In the HELCOM Explorer, the actions have also been categorized as measures, management coordination, monitoring and assessment, data and information, and knowledge. The overview part of this report reflects the implementation of all actions while the parts on the implementation of actions in the four BSAP segments focus on the actions categorized as measures (action directly aimed at reducing pressures or improving the state of the environment) and management coordination (actions aimed at establishing joint HELCOM principles for management of the marine environment). Over 90 percent of the national actions and around 65 percent of the joint actions are categorized as measures or management coordination.

### HELCOM Recommendations

To support the BSAP update process, the Contracting Parties reported on the implementation of national actions in 51 HELCOM Recommendations. These Recommendations were selected for reporting since they have a direct link to improving the state of or reducing the pressures on the Baltic Sea. The reporting was included in the HELCOM Explorer. Some of the Recommendations also include joint actions but they were not included in this reporting round. Each individual action in the selected Recommendation was assessed and reported on separately by the countries and only if all the actions in the Recommendation were reported as accomplished, was the Recommendation considered to be fully implemented by the respective country. Some of the Recommendations have been adopted already prior to the adoption of the 2007 BSAP.

### Legend



Fully accomplished



Partly accomplished



Not accomplished



Fully accomplished by all countries



Partly accomplished\*



Not accomplished

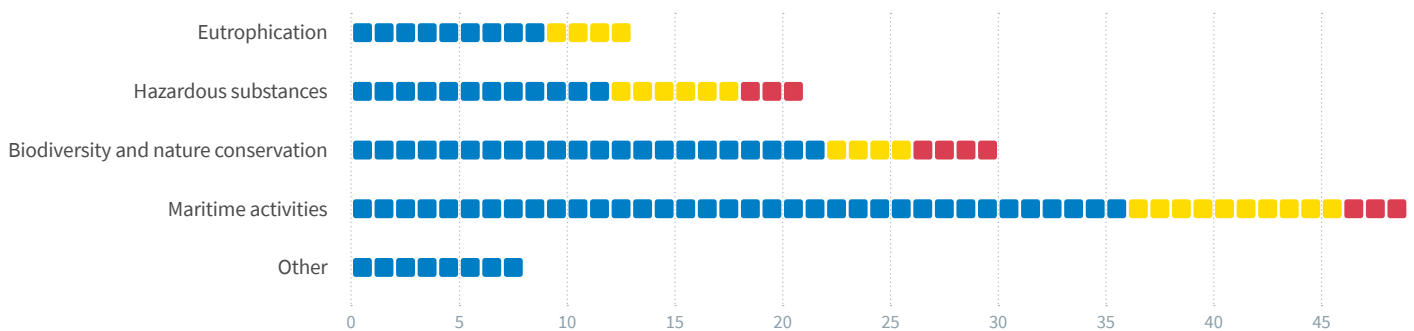
\*) Accomplished by number of countries (yellow circles) out of total countries (total circles).



# Overview of the implementation of actions

Over 70 percent of the joint actions from all categories in the BSAP and the subsequent Ministerial Declarations have been accomplished and for around 20 percent of the joint actions the implementation has been started but not yet completed. Around 8 percent of the joint actions are not accomplished.

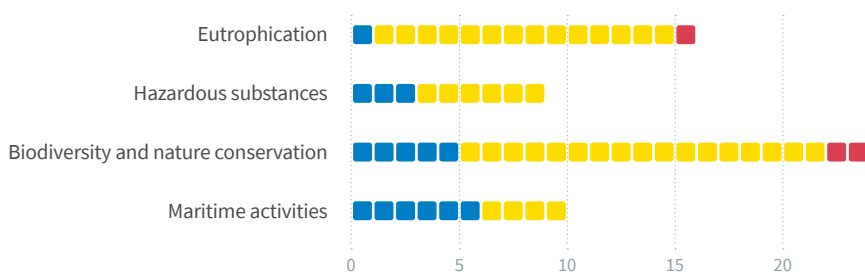
## Joint actions



**Figure 1.** Accomplishment of joint actions in the BSAP and subsequent Ministerial Declarations.

Around 25 percent of the national actions have been implemented by all countries. The majority of the national actions, around 70 percent, have been accomplished by at least one country but not by all. Approximately 5 percent of the national actions have not been implemented by any country.

## National actions



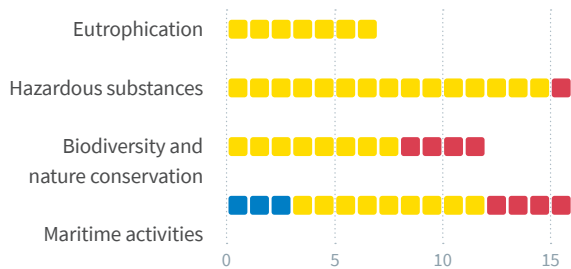
**Figure 2.** Accomplishment of national actions in the BSAP and subsequent Ministerial Declarations.





Only 6 percent of the Recommendations were reported accomplished by all countries. All of these Recommendations are related to maritime activities. Almost 80 percent of the Recommendations were implemented by at least one country while almost 20 percent were not fully implemented by any country.

## Recommendations



**Figure 3.** Accomplishment of the national actions in selected HELCOM Recommendations.

The following chapters provide more detailed information on the implementation of the actions in the four BSAP segments and HELCOM Recommendations. The chapters focus on the actions involving concrete measures to improve the environmental status or regional coordination of management of the Baltic Sea.

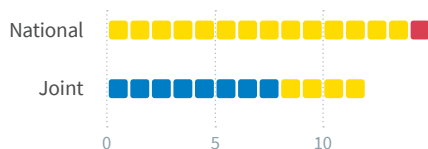


# 1. Eutrophication segment



*“Baltic Sea unaffected by eutrophication”*

Almost 70 percent of the joint actions regarding eutrophication involving concrete measures to improve the environmental status or regional coordination of management of the Baltic Sea have been accomplished and the rest of the joint actions are ongoing. None of the national actions have been accomplished by all countries but all actions but one have been implemented by at least one country.



**Figure 4.** Accomplishment of national and joint action related to eutrophication. Only actions categorized as concrete measures to improve the environmental status or regional coordination for the management of the Baltic Sea are included.





### Nutrient input reduction scheme

The nutrient input reduction scheme adopted as part of the Baltic Sea Action Plan and updated for the Ministerial Meeting 2013 sets the nutrient input reduction targets for reaching a good environmental status of the Baltic Sea regarding eutrophication. While the joint actions related to the scheme have been accomplished, only one country has reached its reduction target for nitrogen and none of the countries have reached the reduction targets for phosphorus.

Action (joint)	Implementation status
Organize a workshop with river basin management authorities	
Principles for fair burden sharing of the country-wise reduction needs for atmospheric nitrogen deposition inputs be developed for inclusion in the HELCOM Baltic Sea Action Plan nutrient reduction requirement system	
Utilize national input ceilings to assess progress and to discuss the possibilities of incorporating nutrient input ceilings in the BSAP update	
Updated information on the atmospheric nitrogen deposition to be included into review of the HELCOM BSAP environmental targets for eutrophication, the maximum allowable inputs and the nutrient reduction scheme	

Action (national)	Implementation status
Progress towards reaching of country-wise allocated nutrient reduction targets (CARTs) to diminish nutrient inputs to the Baltic Sea to the maximum allowable level: Nitrogen	
Progress towards reaching of country-wise allocated nutrient reduction targets (CARTs) to diminish nutrient inputs to the Baltic Sea to the maximum allowable level: Phosphorus	
National programmes to achieve nutrient reductions	
Evaluation of effectiveness of national programmes for reduction of nutrients and need for additional measures, in order to reach the country-wise reduction targets	
Initiate joint activities to address transboundary nutrient inputs from non-Contracting Parties according to the HELCOM nutrient reduction scheme	



## Agriculture

Agriculture remains a major source of nutrient inputs to the Baltic Sea. All joint actions regarding agriculture have been implemented. The accomplishments include the adoption of HELCOM Recommendation 41/3 on the use of national manure standards and revising the Annex III part II of the Helsinki Convention on prevention of pollution from agriculture. However, none of the national actions, including implementation and enforcement of the provisions of part II of Annex III of the Helsinki Convention, have been accomplished by all countries.

Action (joint)	Implementation status
Joint input on EU CAP Health Check (2008-2009)	
Establish a HELCOM Agricultural/Environmental Forum	
Develop guidelines/recommendation on the use of standards for nutrient content in manure	
Review and update part II of Annex III of the Helsinki Convention, in order to better serve the purposes of reaching good environmental status (GES)	

Action (national)	Implementation status
Revised palette of measures for reducing phosphorus and nitrogen losses from agriculture. Optional agro-environmental measures to be implemented through corresponding international and national instruments	
Promote and advance towards applying annual nutrient accounting at farm level, taking into account soil and climate conditions, in areas critical to nutrient losses as a first step and with an aim to apply it region-wise	
Apply as a minimum the updated EU's BREF document and Conclusions on BAT for intensive rearing of poultry and pigs, especially for the facilities located within areas critical to nutrient losses	
Agreement on national level on measures to reduce nutrient surplus in fertilization practices to reach nutrient balanced fertilization	
Implement and enforce the provisions of part 2 of Annex III "Prevention of pollution from agriculture" of the 1992 Helsinki Convention	
Establish national guidelines or standards for nutrient content in manure with the view to fully utilize nutrient content of manure in fertilization practices and to avoid overfertilization	



### Wastewater treatment

Three Recommendations aiming to reduce nutrient inputs from the wastewater sector were adopted alongside the BSAP. Recommendation 28/7/2007 has been implemented by all but one country and Recommendations 28E/5/2007 and 26E/6/2007 are still to be fully implemented by several countries. There is significant potential to reduce nutrient inputs from the wastewater sector if the HELCOM Recommendations were fully implemented. If all municipal wastewater treatment plants followed the requirements of HELCOM recommendation 28E/5, the achieved nutrient input reduction would correspond to nearly 10 percent of the BSAP reduction targets (HELCOM 2020).

Recommendation	Implementation status
28E/5/2007 Municipal wastewater treatment	
28E/6/2007 Onsite wastewater treatment of single family homes, small businesses and settlements up to 300 Person Equivalents (P.E.)	
28E/7/2007 Measures aimed at the substitution of polyphosphates (phosphorus) in detergents	

### Nutrient recycling

Nutrient recycling is an essential element of the circular economy and sustainable food production. The HELCOM 2018 Ministerial Meeting recognized that, in addition to abating eutrophication, nutrient recycling could contribute to reducing greenhouse gas emissions and securing phosphorus resources.

The joint commitment to elaborate a Baltic Sea Regional Nutrient Recycling Strategy has been met as the Strategy is adopted alongside the updated BSAP in 2021, while the national actions to enhance nutrient recycling are still ongoing in most countries.

Action (joint)	Implementation status
Elaborate by 2020 a Baltic Sea Regional Nutrient Recycling Strategy that aims for reduced nutrient inputs to and eutrophication of the Baltic Sea	
Develop, as a follow-up to the Strategy, possible nutrient recycling measures to be included in the updated BSAP	

Action (national)	Implementation status
Enhance the recycling of phosphorus (especially in agriculture and wastewater treatment) and to promote development of appropriate methodology	









### Industrial releases and airborne nitrogen inputs

HELCOM has adopted several Recommendations aimed at limiting the emissions of nutrients and hazardous substances from industry. As part of the reporting, the Recommendations were evaluated against recent legislation common to the EU member states and the legislation of the Russian Federation and the reporting to HELCOM was conducted only on actions that set stricter requirements than the current EU or Russian legislation. The actions reported for Recommendations 16/4, 17/8, 17/9 and 17/10 target the reduction of nutrient emissions. None of these Recommendations were fully implemented by all countries.

Action (joint)	Implementation status
Joint input to strengthen the emission targets for nitrogen under the EU NEC Directive (National Emission Ceilings Directive) and the Gothenburg protocol under CLRTAP (Convention on Long-range Transboundary Air Pollution)	


Recommendation	Implementation status
16/4/1995 Reduction of Emissions into the Atmosphere from the Pulp and Paper Industry	
17/10/1996 Basic Principles for Realization of BAT and BEP in Food Industry	
17/8/1996 Reduction of Discharges from the Kraft Pulp Industry	
17/9/1996 Reduction of Discharges from the Sulphite Pulp Industry	








### Internal nutrient reserves

The joint commitment to elaborating the regional principles and the risk assessment framework for managing internal nutrient reserves and incorporated into the HELCOM acquis has been met as the HELCOM Guidelines for Sea-Based Measures to Manage Internal Nutrient Reserves in the Baltic Sea Region has been adopted alongside the updated BSAP in 2021.

Action (joint)	Implementation status
Elaborate the regional principles and the risk assessment framework to manage internal nutrient reserves and incorporated to the HELCOM acquis	

### Hot spots

The Baltic Sea Joint Comprehensive Environmental Action Programme (JCP), an international environmental management framework for the long-term restoration of the ecological balance of the Baltic Sea, was adopted in 1992 to help identify and clean up pollution hot spots. More than three quarters of the total 162 HELCOM Hot Spots have been eliminated, but further efforts are needed to resolve the remaining 40 pollution sites.

Action (national)	Implementation status
Elimination of remaining hot spots from the JCP List (municipal and industrial)	
Elimination of remaining hot spots from the JCP List (agricultural)	
Elimination of remaining hot spots from the JCP List (coastal)	



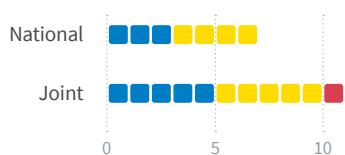


## 2. Hazardous substances segment

### Goal

*“Baltic Sea undisturbed by hazardous substances”*

Almost half of the actions involving concrete measures to improve the environmental status or regional coordination for the management of the Baltic Sea regarding hazardous substances have been accomplished. Around half of the joint actions are ongoing and around half of the national actions have been implemented by at least one country.



**Figure 5.** Accomplishment of national and joint actions related to hazardous substances. Only actions categorized as concrete measures to improve the environmental status or regional coordination for the management of the Baltic Sea are included.










The accomplished joint actions include updating the requirements of the HELCOM Strategy for hazardous substances as well as the requirements concerning proper handling of waste/landfilling. HELCOM work on revising the list of regional priority pollutants as well as identifying and responding to emerging pollutants is still ongoing.

It has been recognized that there is a need to update the existing HELCOM framework on hazardous substances to respond to emerging regional and global challenges. A regional policy document on hazardous substances and a background report on the update of HELCOM work on hazardous substances in the Baltic Sea was elaborated in 2021 to support the work.

Action (joint)	Implementation status
Update of HELCOM requirements concerning proper handling of waste/landfilling (HELCOM Recommendation 24/5)	
Restrictions on cadmium content in fertilisers	
Make use of analyses of cost-effectiveness on mitigation measures to reduce hazardous substances carried out under the SOM Platform	
Update of requirements of HELCOM Strategy for hazardous substances (HELCOM Recommendation 19/5)	
Need to strictly control the dredging and disposal of sediments when revising the HELCOM Guidelines for disposal of dredged spoils, to avoid that substantial amounts of hazardous substances are re-suspended from bottom sediments (containing organotin, mercury and cadmium compounds, as well as other heavy metals and poly-aromatic compounds)	
Advance the HELCOM indicators including information on sources and pathways of pollutants to identify emerging pollutants	
Work together with OSPAR and Arctic Council especially related to hazardous substances	
Revise the regional priority pollutants	
Develop a framework for responding to the emergent/alarming pollutants	
Develop measures to prevent pharmaceuticals from reaching marine environment, including source control measures	
Update of HELCOM requirements for iron/steel industry (HELCOM Recommendation 24/4)	



The accomplishments regarding the national actions include the introduction of a ban on the use, production and marketing of endosulfan, pentabromodiphenylether (pentaBDE) and octabromodiphenylether (octaBDE) and ratification of the Stockholm POPs Convention. The majority of the countries have also established national programmes to eliminate hazardous substances as well as ratified the UNEP Minamata Convention on Mercury.

Action (national)	Implementation status
Introduction of ban on the use, production and marketing of endosulfan, pentabromodiphenylether (pentaBDE) and octabromodiphenylether (octaBDE)	
Implementation of the Globally Harmonised System (GHS) on classification and labelling of chemicals and to take into account guidelines for preparing safety data sheets	
Ratification of the Stockholm POPs Convention	
National programmes to eliminate hazardous substances	
Evaluation of effectiveness of national programmes to eliminate hazardous substance	
Ratification of the UNEP 2013 Minamata Convention on Mercury	
Implementation of the UNEP 2013 Minamata Convention on Mercury	







Industry remains one of the main sources of contamination of the Baltic Sea through discharges into water bodies and emissions into the air that then reach the Baltic Sea with riverine inputs, direct discharges or airborne deposition. HELCOM has adopted several Recommendations aimed at limiting the emissions of nutrients and hazardous substances from industry. As part of the reporting, the Recommendations were evaluated against recent legislation common to the EU member states and the legislation of the Russian Federation and the reporting to HELCOM was conducted only on actions that set stricter requirements than the current EU or Russian legislation. None of the Recommendations were fully implemented by all countries.

Recommendation	Implementation status
6/4/1985 Measures Aimed at the Reduction of Mercury Resulting from Dentistry	
14/3/1993 Limitation of Emissions to the Atmosphere and Discharges into Water from Glass Industry	
17/6/1996 Reduction of Pollution from Discharges into Water, Emissions into the Atmosphere and Phosphogypsum out of the Production of Fertilizers	
23/10/2002 Reduction of discharges and emissions from production and formulation of pesticides	
23/12/2002 Reduction of Discharges and emissions from production of textiles	
23/4/2002 Measures aimed at the reduction of mercury pollution resulting from light sources and electrical equipment	
23/7/2002 Reduction of discharges and emissions from the metal surface treatment	
23/9/2002 Restriction of atmospheric emissions and waste water discharges from hard coal cokerries	
24/4/2003 Reduction of Emissions and Discharges from the Iron Steel Industry	
25/1/2004 Elimination of PCBs and PCTs	
28E/8/2007 Environmentally friendly practices for the reduction and prevention of emissions of dioxins and other hazardous substances from small-scale	
29/1/2008 Reduction of Emissions from Crematoria	
31E/1/2010 Implementing HELCOM's objective for hazardous substances	
31E/2/2010 Batteries and accumulators and waste batteries and accumulators containing mercury, cadmium or lead	
31E/3/2010 Cadmium in fertilizers	
31E/4/2010 Proper handling of waste/landfilling	

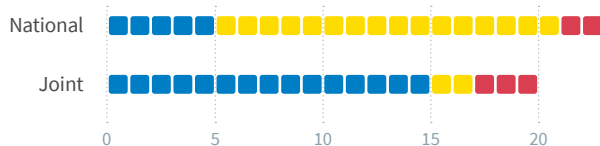


### 3. Biodiversity and nature conservation segment

#### Goal

#### *“Favourable conservation status of Baltic Sea biodiversity”*

75 percent of those joint actions regarding biodiversity that involve concrete measures to improve the environmental status or regional coordination of management of the Baltic Sea have been accomplished, while for 10 percent of the actions implementation is ongoing and 15 percent are not accomplished. Around 20 percent of the national actions are implemented by all countries and around 65 percent have been implemented by at least one country.



**Figure 6.** Accomplishment of national and joint action related to biodiversity and nature conservation. Only actions categorized as concrete measures to improve the environmental status or regional coordination for the management of the Baltic Sea are included.



### *Spatial conservation measures*

The designation of marine protected areas (MPAs) has been an instrument for protection of the Baltic Sea for more than 30 years and serves as an important measure in meeting the commitments of the Contracting Parties to the Helsinki Convention.

Since the designation of the first HELCOM MPAs in 1994, there has been a substantial increase in the areal coverage of MPAs: in 2004, the protected marine area of the Baltic Sea was 3.9 percent, while in 2010, only 3 years after the adoption of the 2007 BSAP, this number had increased to 10.3 percent, making the Baltic Sea the first marine region in the world to reach the target of conserving at least 10 percent of coastal and marine areas, set by the UN Convention on Biological Diversity.

As of December 2020, the MPA network consisted of 178 HELCOM MPAs, covering about 13.5 percent of the Baltic Sea.

Although the Baltic Sea region has an extensive network and coverage of marine protected areas, MPA management and management effectiveness have been identified as issues where significant progress is needed.

2019 saw a concrete milestone in the work towards improved management of the Baltic Sea MPA network, namely the establishment of the HELCOM MPA Management Network. The work of the network supports the implementation HELCOM commitments, including the BSAP. The overall aim of the network is to increase capacity of MPA managers, to function as a collaboration platform, and to improve awareness of MPA management issues. By facilitating dialogue and networking between managers, experts, stakeholders and scientists the network aims to improve integration of the existing scientific and practical knowledge about key MPA issues.

HELCOM Recommendation 15/5 was renewed in 2014 and is now superseded by HELCOM Recommendation 35/1 “System of coastal and marine Baltic Sea protected areas (HELCOM MPAs)”. The new recommendation consolidates previous commitments with the main aim of improving the management and ecological coherence of the network of MPAs in the Baltic Sea.






Action (joint)	Implementation status
Revise by 2014 HELCOM Recommendation 15/5 “System of coastal and marine Baltic Sea protected areas (BSPAs)”	
Development and implementation of fisheries management measures for fisheries inside marine protected areas	



Recommendation	Implementation status
35/1/2014 System of coastal and marine Baltic Sea protected areas (HELCOM MPAs)	
15/1-R/2018 Protection of the Coastal Strip	





### Red listed species, habitats/biotopes

HELCOM Recommendation 37/2/2016 on the Conservation of Baltic Sea species categorized as threatened according to the 2013 HELCOM Red List was adopted in 2016 and Recommendation 40/1/2019 on the Conservation and Protection of Marine and Coastal Biotopes, Habitats And Biotope Complexes Categorized as Threatened According to the HELCOM Red Lists in 2019. Neither of the Recommendations is fully implemented by any Baltic Sea country. Also, none of the countries reported that measures have been taken to ensure that, regionally, the loss of all red listed marine habitats and biotopes in the Baltic Sea is halted and these have largely recovered. HELCOM maintains, and annually reviews, national overviews of conservation measures related to the threatened species and habitats/biotopes occurring in each Contracting Party.

Action (joint)	Implementation status
Develop by 2015 a new HELCOM Recommendation on conservation plans for species which are at risk of extinction	
Develop by 2015 a new HELCOM Recommendation on conservation plans for habitats and biotopes which are at risk of extinction	
Develop by 2015 regional targets for the implementation of the Strategic Plan for Biodiversity, including the completion and further development of a set of HELCOM core indicators for biodiversity and their monitoring	
Updating of a complete classification system for Baltic Sea marine habitats/biotopes	
The further development and testing of the HELCOM generic decision-support tool to map possible negative impacts of specific gear types on threatened or declining species and habitats, and which helps to develop and/or recommend measures to address these	

Action (national)	Implementation status
Take measures so that by 2020, regionally, a) the loss of all red listed marine habitats and biotopes in the Baltic Sea will be halted	
Take measures so that by 2020, regionally b) red listed marine habitats and biotopes have largely recovered, and that degradation and fragmentation have been significantly reduced, the progress of which will be measured with a core indicator to be produced	

Recommendation	Implementation status
37/2/2016 Conservation of Baltic Sea species categorized as threatened according to the 2013 HELCOM Red List	
40/1/2019 Conservation and Protection of Marine and Coastal Biotopes, Habitats And Biotope Complexes Categorized as Threatened According to the HELCOM Red Lists	



### Coastal fish

Coastal fish communities are important components of the Baltic Sea ecosystems, and many species of coastal fish are also of high socio-economic value for coastal societies, small scale coastal fisheries and recreational fishing. Two core indicators for coastal fish were published in 2015 and updated in 2018, namely “Abundance of coastal fish key functional groups” and “Abundance of key coastal fish species”, and work on developing additional coastal fish indicators is ongoing.

To support the implementation of the actions on coastal fish HELCOM has financed two consecutive projects (2013-2018 and 2019-2023).

Action (joint)	Implementation status
Development of a suite of indicators for coastal fish species	
Action (national)	Implementation status
Develop long-term management plans by 2012 for protecting, monitoring and sustainably managing coastal fish species, including the most threatened and/or declining, including anadromous ones, according to BSEP109	



### Migratory fish

The national actions on reintroducing native salmon in at least four potential salmon rivers as well as actively conserving at least ten wild salmon river populations have been accomplished. Other actions as well as the related Recommendations are not yet fully implemented by all countries.

In 2019, in addition to the actions and Recommendations related to eel, salmon and sea trout, HELCOM published the HELCOM Action Plan for the protection and recovery of Baltic sturgeon (*Acipenser oxyrinchus oxyrinchus*), another migratory species native to the Baltic Sea. To support the implementation of the Action Plan, the HELCOM Expert Group on Sturgeon Remediation (EG STUR) was established in the same year.

Action (joint)	Implementation status
Further development and implementation of common practices for breeding, rearing and releasing salmon and sea trout as reintroductions in potential salmonid rivers	
Further development and implementation of recommendations for riverine and estuarine management and conservation measures, such as fish ways for up and down migration, restoration and protection of spawning grounds, concerning fisheries within rivers and estuaries	

Action (national)	Implementation status
Reintroduce native salmon in at least four potential salmon rivers	
Actively conserve at least ten wild salmon river populations	
Develop restoration plans (including restoration of spawning sites and migration routes) in suitable rivers to reinstate migratory fish species	
Competent authorities to develop national programs for the conservation of eel stocks as a contribution to a Baltic coordinated programme to ensure successful eel migrations from the Baltic Sea drainage basin to natural grounds	
Competent authorities to implement national programs for the conservation of eel stocks as a contribution to a Baltic coordinated programme to ensure successful eel migrations from the Baltic Sea drainage basin to natural grounds	
Consider additional measures if necessary, such as reducing fishing mortality in accordance with the ICES advice, removing migration barriers, and re-stocking in eel-safe river systems, e.g. utilising the outcomes of co-operation between ICES, HELCOM and other stakeholders on this issue	
Continue the efforts underway and enhance co-ordination of measures within the Baltic Sea as well as with other European countries, for the conservation of eel stocks, in line with national eel management plans	

Recommendation	Implementation status
19/2/1998 Protection and Improvement of the Wild Salmon*) ( <i>Salmo salar</i> L.) Populations in the Baltic Sea Area	
32-33/1/2011 Conservation of Baltic Salmon ( <i>Salmo salar</i> ) and Sea Trout ( <i>Salmo trutta</i> ) Populations by the Restoration of their River Habitats and Management of River Fisheries	



### Commercial fish

The joint actions related to commercial fish have been accomplished, as have three national actions related to long-term management plans for sprat, herring, flatfish and cod. The other national actions have not been implemented by all countries.

Action (joint)	Implementation status
Continue to work to develop common procedures to facilitate the sharing of aggregated data on fisheries activities in the Baltic Sea in an applicable format for the purpose of assessing pressures on marine and coastal ecosystems e.g. to be applied in maritime spatial planning	
A joint submission by EU Member States to the 2012 review of EU Common Fisheries Policy	


Action (national)	Implementation status
Competent authorities to take immediate action for development of long-term management plans for commercially exploited fish species (pelagic species: sprat and herring) so that they are within safe biological limits	
Competent authorities to take immediate action for development of long-term management plans for commercially exploited fish species (flatfish) so that they are within safe biological limits	
Competent authorities to take action to implement existing long-term management plans for cod	
Implement existing long-term management plans for eel to improve their distribution size/age-range	
Competent authorities to take immediate action for development of long-term management plans for commercially exploited fish species (sea trout) so that they are within safe biological limits	
Implemented long-term management plans for cod to improve their distribution size/age-range	
Competent authorities to take immediate action for development of long-term management plans for commercially exploited fish stocks so that they are within safe biological limits and reach agreed targets, such as maximum sustainable yield, improve their distribution and size/age range (salmon)	



### *By-catch of birds and mammals*

For harbour porpoises, incidental by-catch has been identified as the main known cause of human-related mortality and it is likely to inhibit population recovery towards conservation targets. Drowning due to incidental by-catch in fishing gear is a significant pressure on population trends and demography of waterbirds as in vulnerable species the numbers of drowned birds represent a relatively large proportion of the total population size.

A pre-core indicator for estimating the number of drowned mammals and waterbirds in fishing gear was published in 2018, followed by a dedicated OSPAR/HELCOM workshop aiming at improving the assessment methodology for the next iteration of the assessment. The indicator is an important tool for detecting mortality in key populations of the highly mobile species due to fishing activities.

Action (joint)	Implementation status
Take decisive action to work towards a favourable conservation status of the harbor porpoise based on implementation of the CMS (Convention on Migratory Species) ASCOBANS (Agreement on the Conservation of Small Cetaceans in the Baltic, North East Atlantic, Irish and North Seas) Jastarnia Plan for the harbor porpoise in the Baltic Sea, in particular by addressing the pressing problem of by-catch	





### Aquaculture

HELCOM Recommendation 37/3/2016 on Sustainable Aquaculture in the Baltic Sea Region was adopted in 2016. Recommendation 25/4 was maintained until the adoption of BAT- and BEP-based measures for application in marine and fresh water fish farming. Neither of the Recommendations has been fully implemented by all countries. The Correspondence Group concerning a draft document on Best Available Technology/Best Environmental Practices (BAT/BEP) descriptions for sustainable aquaculture in the Baltic Sea region (CG Aquaculture) is in the process of developing a comprehensive set of BAT/BEP descriptions on sustainable aquaculture for the benefit of the Baltic Sea region, as a follow-up on Recommendation 37/3.

Action (joint)	Implementation status
Develop a new HELCOM Recommendation on sustainable aquaculture by 2014 to substitute the existing HELCOM Recommendation 25/4	

Recommendation	Implementation status
25/4/2004 Measures aimed at the reduction of discharges from Water and Marine Fish Farming	
37/3/2016 Sustainable Aquaculture in the Baltic Sea Region	

### Waterbirds

HELCOM Recommendation 34E/1/2013 on Safeguarding important bird habitats and migration routes in the Baltic Sea from negative effects of wind and wave energy production at sea has so far been fully implemented by one country.

To support the implementation of the Recommendation HELCOM is in the process of establishing a dedicated group focusing on migration under the auspice of the existing OSPAR/ICES/HELCOM Joint Working Group on Seabirds.

Recommendation	Implementation status
34E/1/2013 Safeguarding important bird habitats and migration routes in the Baltic Sea from negative effects of wind and wave energy production at sea	



### Marine mammals

The three seal species, i.e. the grey seal (*Halichoerus grypus*), the ringed seal (*Phoca hispida botnica*), and the harbour seal (*Phoca vitulina*), as well as the harbour porpoise (*Phocoena phocoena*) are important and valuable components of the Baltic Sea ecosystem, and their continued survival and well-being are inextricably linked to, and dependent on the quality of the Baltic Sea environment as well as human activities.

While most seal populations in the Baltic Sea show signs of recovery, all seal populations, except for the Kattegat harbour seals, remain below the estimated levels in the beginning of the 20th century.

The harbor porpoise population in the Baltic Proper has drastically decreased during the 20th century, with no signs of recovery. While in a comparatively better state, the Western Baltic population, still requires the application of efficient conservation measures due to high pressure from human activities. To account for this, Recommendation 17/2 on the Protection of Harbour Porpoise in the Baltic Sea was opened for revision in 2017 and an updated recommendation was adopted in 2020.

The HELCOM Expert Group on Marine Mammals was established to facilitate the further implementation of Recommendation 27-28/2 and Recommendation 17/2. The group consists of marine mammal experts, scientists, and managers from the Contracting Parties. Representatives of the fisheries sector participate as well in order to improve dialogue related to the protection and management of marine mammals between the environment and fisheries sectors.

Action (national)	Implementation status
Protect the ringed seal in the Gulf of Finland, including to significantly reduce by-catch and to improve the understanding of the other direct threats on the seals, and urge transboundary co-operation between Estonia, Finland and Russia to support achieving a viable population of ringed seals in the Gulf	

Recommendation	Implementation status
17/2/1996 Protection of Harbour Porpoise in the Baltic Sea Area	
27-28/2/2006 Conservation of seals in the Baltic Sea Area	











### Maritime spatial planning

A joint co-chaired Working Group on Maritime Spatial Planning was launched in October 2010 by HELCOM and the Vision and Strategies around the Baltic Sea (VASAB) Committee on Spatial Planning and Development of the Baltic Sea region (CSPD/BSR). The Working Group was established to ensure cooperation among the Baltic Sea Region countries for coherent regional Maritime Spatial Planning (MSP) processes in the Baltic Sea.

All joint actions on MSP have been accomplished, including the adoption of the Guideline for the implementation of the ecosystem-based approach in Maritime Spatial Planning (MSP) in the Baltic Sea area. The national actions on MSP have not yet been completed in all countries. The revised HELCOM Recommendation 24/10 was adopted in 2019 and has not yet been fully implemented.

Action (joint)	Implementation status
Jointly develop by 2010, as well as test, apply and evaluate by 2012, in cooperation with other relevant international bodies, broad-scale, cross-sectoral, marine spatial planning principles based on the Ecosystem Approach:- whereby all Contracting Parties and relevant HELCOM bodies shall co-operatively participate; - thereby giving guidance for the planning and ensuring the protection of the marine environment and nature, including habitats and seafloor integrity;- securing sustainable use of marine resources by reducing user conflicts and adverse impacts of human activities	
Update the Roadmap for Maritime Spatial Planning (MSP), if necessary, in 2014 after HELCOM and VASAB ministerial meetings and assess the implementation of this Roadmap 2016, 2018 and 2020	
Draft and adopt by 2015 Baltic Sea regional "Guidelines on transboundary consultations and cooperation in the field of MSP" and the "Guidelines on public participation for MSP with transboundary dimensions"	
Draft and adopt by 2015 procedurally oriented Baltic Sea regional "Guidelines on the application of Ecosystem Approach in transnationally coherent MSP"	
The joint HELCOM-VASAB Working Group to finalise, for adoption by HELCOM and VASAB in 2010, a set of joint HELCOM-VASAB broad-scale transboundary Maritime Spatial Planning principles based on the document on Maritime Spatial Planning	
Establish a joint, co-chaired HELCOM-VASAB Working Group on Maritime Spatial Planning (MSP) which will develop and adopt its terms of references by 2010, in this way also enabling coordination and integration of the MSP related actions and projects implementation	



Action (national)	Implementation status
National frameworks for coherent MSP are in place in all Baltic Sea countries by 2017	
Draw up and apply maritime spatial plans throughout the Baltic Sea region by 2020, which are coherent across the borders and apply the ecosystem approach, cooperate in the field of MSP using inter alia the HELCOM-VASAB MSP WG framework	
Identify by 2013 competent contact points for MSP for the purpose of transboundary consultation and joint planning	
Apply by 2018 Baltic Sea regional "Guidelines on the application of Ecosystem Approach in transnationally coherent MSP"	
Apply by 2018 Baltic Sea regional "Guidelines on transboundary consultations and cooperation in the field of MSP". Apply by 2018 Baltic Sea regional "Guidelines on public participation for MSP with transboundary dimensions"	
Recommendation	Implementation status
24/10-R Implementation of Integrated Marine and Coastal Management of Human activities in the Baltic Sea Area	

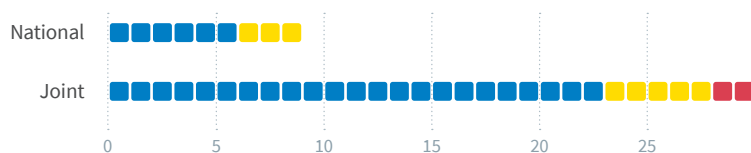


## 4. Maritime activities segment

### Goal

*“Maritime activities carried out in an environmentally friendly way”*

Almost 80 percent of the joint actions regarding maritime activities involving concrete measures to improve the environmental status or regional coordination of management of the Baltic Sea have been accomplished and over 15 percent of the joint actions are ongoing. Almost 70 percent of the national actions are accomplished and the rest have been implemented by at least one country.



**Figure 7.** Accomplishment of national and joint action related to maritime activities. Only actions categorized as concrete measures to improve the environmental status or regional coordination for the management of the Baltic Sea are included.



### Clean shipping

There have been many advancements in clean shipping in the Baltic Sea since the adoption of the BSAP. Almost all joint and national actions regarding clean shipping have been fully implemented. The accomplishments include joint proposals to the International Maritime Organization (IMO) in order to amend Annex IV to MARPOL 73/78 with requirements on nutrient discharges in sewage and to apply for a NOx Emission Control Area (NECA) status for the Baltic Sea. Also, three HELCOM Recommendations on clean shipping have been fully implemented by all countries.

Action (joint)	Implementation status
Joint submission to IMO in order to amend Annex IV to MARPOL 73/78 with requirements on nutrient discharges in sewage	
Work towards submitting a joint proposal by the Baltic Sea countries to the IMO applying for a NOx Emission Control Area (NECA) status for the Baltic Sea, taking into account the results of the study by HELCOM on economic impacts of a Baltic Sea NECA and to welcome and support the idea of a NOx Emission Control Area in other sea areas, in particular with regard to the North Sea.	
Clarify outstanding issues concerning regional HELCOM Interim Guidance on technical and operational aspects of delivery of sewage by passenger ships to port reception facilities	
Work towards the creation of a joint "Green Technology and Alternative Fuels Platform for Shipping" together with other regional actors in the Baltic Sea	
Strive for that HELCOM countries are in the position to report to IMO, that adequate facilities are available for the regulation to enter into force by 1 January 2016 for new ships	
Joint submissions to IMO in order to tighten regulations concerning SOx emissions from ships within the revision of Annex VI to MARPOL 73/78	
Disseminate information on the Baltic Sea environmental regime for mariners, by updating the "HELCOM Clean Seas Guide"	
Update HELCOM Recommendation 20/4 on antifouling systems	

Action (national)	Implementation status
Ratification of Annex VI of MARPOL 73/78 Convention	
Implement the Roadmap for upgrading port reception facilities for sewage in passenger ports in the Baltic Sea Area: Secondary ports	
Ratification of the AFS Convention (International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2009)	
Implement the Roadmap for upgrading port reception facilities for sewage in passenger ports in the Baltic Sea Area: Priority ports	



Recommendation	Implementation status
22/1/2001 Installation of Toilet Retention Systems and Standard Connections for Sewage on Board Existing Fishing Vessels, Working Vessels and Pleasure Craft	
22/3 Unified Interpretations to Ensure a Harmonized and Effective Implementation of the Strategy for Port Reception Facilities for Ship-Generated Wastes and Associated Issues	
19/10-R Application by the Baltic Sea States of Guidelines for Holding Tanks/Oily Water Separating or Filtering Equipment for Ships of Less Than 400 Gross Tonnage	
10/5/1989 Guidelines for the Establishment of Adequate Reception Facilities in Ports	
12/5/1991 Promotion of The Use of Safer Tankers While Carrying Oil	
28E/10 Application of the No-Special-Fee System to Ship-Generated Wastes and Marine Litter Caught in Fishing Nets in The Baltic Sea Area	

### Safety of navigation

Measures in the field of safety of navigation are needed to reduce accident risks since shipping accidents may in the worst-case scenario create an environmental disaster for the fragile Baltic Sea ecosystem. All the agreed HELCOM actions on safety of navigation, both joint and national, have been accomplished.

Action (joint)	Implementation status
Agree on amended HELCOM Agreement on Access to AIS (Automatic Identification System) Information (based on the proposal by HELCOM AIS EWG 16/2007)	
Consider joint submission to IMO in order to introduce the necessary modification of Automatic Identification System (AIS)	
Further develop the online Mariners' Routeing Guide Baltic Sea	
Cooperation in investigation of the potential for DGNSS (Differential Global Navigation Satellite Systems) broadcast via AIS (Automatic Identification System) base stations pending on recommendation by IALA (International Association of Marine Aids to Navigation and Lighthouse Authorities)	
Revise the Baltic Sea Re-survey Scheme and extend its scope to cover all routes and other areas used for navigation according to the 2009 Baltic Sea Hydrographic Commission Vision; present the national re-survey plans (2013, not later than 2015), including time schedule estimations; undertake necessary measures to ensure that sufficient funding, will be available for re-surveys	

Action (national)	Implementation status
Measures to improve safety of navigation (HELCOM Recommendation 28E/11):- trained crew in ice navigation- voluntary pilotage	



### *Non-indigenous species*

Introductions of non-indigenous species is a serious threat to marine and freshwater ecosystems. New species may completely alter the local communities, drive species to extinction as well as cause economic damage as nuisance species.

All actions regarding non-indigenous species have been accomplished, including the ratification of the Ballast Water Management Convention and the implementation of the HELCOM Ballast Water Road Map.


Action (joint)	Implementation status
Implementation of the HELCOM Ballast Water Road Map - develop criteria for unacceptable high risk scenarios and acceptable low risk scenarios to consider ballast water management options for Baltic Sea voyages	
Develop, based on an overview of the situation, a comprehensive regional Baltic Sea implementation plan for the IMO Ballast Water Management Convention bearing in mind the possible need to accept a transitional period for exemptions in case of lacking data	
Implementation of HELCOM Ballast Water Road Map - joining OSPAR to request vessels to conduct on a voluntary basis ballast water exchange before arriving at the OSPAR or HELCOM area and to undertake a similar initiative for vessels leaving the Baltic and transiting through the OSPAR area	
Apply the Guidance to distinguish between unacceptable high risk scenarios and acceptable low risk scenarios – a risk of the spread of alien species by ships on Intra-Baltic voyages, when applying for, or granting, exemptions to the requirements of ballast water management of the Ballast Water Management Convention to ships operating within the Baltic Sea	

Action (national)	Implementation status
Ratification of the Ballast Water Management Convention	




*Offshore activities*

The Recommendation on offshore activities has been implemented by some, but not all, countries. The joint action to update the Action Plan for the protection of the environment from offshore platforms, to put into practice the “zero-discharge” principle has not been accomplished.

Action (joint)	Implementation status
Update the Action Plan for the protection of the environment from offshore platforms, to put into practice the “zero-discharge” principle in respect of all chemicals and substances used and produced during the operation of offshore platforms	

Recommendation	Implementation status
18/2/1997 Offshore Activities	



## Response

Swift national and transnational response to marine pollution incidents is of high importance in the Baltic Sea because the marine environment is vulnerable and very sensitive to any release of oil or other harmful substances.

All joint actions related to the response to spills have been accomplished. The most recent achievement is the adoption in 2021 of the Multi-regional Marine HNS Response Manual (Bonn Agreement, HELCOM, REMPEC) to replace the HELCOM Manual on Co-operation in Combatting Marine Pollution Volume II, focusing on response to accidents at sea involving spills of hazardous substances and loss of packaged dangerous goods. Some of the national actions related to response on the shore and oiled wildlife response remain to be accomplished by all countries. None of the HELCOM Recommendations regarding response are fully implemented.

Action (joint)	Implementation status
Update HELCOM Manual on Co-operation in Combatting Marine Pollution Volume II, focusing on response to accidents at sea involving spills of hazardous substances and loss of packaged dangerous goods	
Develop and agree on a decision support system for use of dispersants	
Develop and implement a mutual plan for places of refuge (PoR) and further investigate issues of liability and compensation related to a mutual plan on PoR	
Strengthen the work on OWR (Oiled Wildlife Response) under HELCOM RESPONSE through a targeted expert working group and by enhancing co-operation with NGOs and the private sector, inter alia in order to accommodate the involvement of volunteers	
Establish an ad hoc HELCOM Expert Group to update and review the existing information on dumped chemical munitions in the Baltic Sea	

Action (national)	Implementation status
Integrate shoreline response into national contingency plans and conduct trainings and organize exchange programmes	
Based upon sensitivity mapping, to identify the need for and to finalise the quantification of countermeasures for shoreline response, and to prepare concrete plans/programmes for fulfilling them by 2013	
Integrate the subject of oiled wildlife response into oil pollution contingency plans either on a national or sub-national/local level	



Recommendation	Implementation status
19/17 Measures in order to Combat Pollution from Offshore Units	
22/2 Restricted use of Chemical agents and other Non-chemical means in oil Combatting Operations on the Baltic Sea Area	
33/3 Reporting on incidents involving harmful substances and emergency dumping	
36/3 Marine pollution incident reporting and requests for assistance between Contracting Parties in the Baltic Sea area	
28E/12 Strengthening of sub-regional co-operation in response field	
31/1 Development of national ability to respond to spillages of oil and other harmful substances	
31E/5 Mutual plan for places of refuge in the Baltic Sea area	
34E/4 Airborne surveillance with remote sensing equipment in the Baltic Sea Area	

### Marine litter

The main achievement regarding marine litter is the adoption of the Regional Action Plan on Marine Litter (RAP ML) in 2015. The implementation of the action plan, which includes a number of concrete actions to reduce the input of litter, is tracked regularly. The RAP ML has been updated and the updated action plan is adopted alongside the updated BSAP in 2021.

Action (joint)	Implementation status
The results of SOM could be utilized for quantification of potential reduction targets for input of litter	
Develop a regional action plan on marine litter	
Review and, if necessary, update Recommendation 36/1 and its action plan in 2021	
Develop common indicators and associated targets related to quantities, composition, of marine litter, including riverine inputs, in order to gain information on long-term trends	
Organise a workshop with OSPAR on the development of a microliter indicator on sediments in coordination with EU TG Litter	



### Seabed loss and disturbance

There were no actions in the 2007 BSAP related to seabed loss and disturbance but the Recommendation on marine sediment extraction in the Baltic Sea Area focusing on the removal of sand, gravel, stones and other sediments from the seabed was already adopted in 1998. The Recommendation has not yet been fully implemented by all countries but the joint action regarding dredging stemming from the Ministerial Declaration 2018 has been accomplished.

Action (joint)	Implementation status
Propose actions to avoid and reduce adverse effect of dredging and handling of dredged material at sea	
Recommendation	Implementation status
19/1 Marine Sediment Extraction in the Baltic Sea Area	

### Underwater noise

Underwater noise is a new topic emerged after the adoption of the BSAP. The HELCOM Ministerial Meeting 2018 committed to developing a Regional Action Plan on Underwater Noise, which was adopted in 2021.

Action (joint)	Implementation status
Organise a follow up meeting (following the one organised in 2017) with the OSPAR ICG Noise and in coordination with EU TG Noise to advance on the assessment of underwater noise indicators	
Develop an action plan, preferably by 2021, and regionally coordinated actions on underwater noise	
Establish a set of indicators including technical standards which may be used for monitoring ambient and impulsive underwater noise in the Baltic Sea	



# References

HELCOM (2020). Input of nutrients: potential to reduce input from point sources. ACTION project.

HELCOM (2007). HELCOM Baltic Sea Action Plan (2007 version)

HELCOM Explorer: <https://maps.helcom.fi/website/HELCOMexplorer/index.html>