

HELCOM Secretariat Annual Report 2018

Master document

(amended version that includes comments from FI and EU)

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1. Introduction/foreword (to be added)

2. Ministerial Meeting

The HELCOM Ministerial Meeting held in Brussels in May 2018 agreed to update the [Baltic Sea Action Plan](#) (BSAP) – the concrete roadmap for restoring the ecological balance of the Baltic Sea – by 2021. The updated BSAP will include new measures that are needed to achieve the existing goals: a Baltic Sea unaffected by eutrophication, a Baltic Sea with life undisturbed by hazardous substances, maritime activities carried out in an environmentally friendly way, and favourable conservation status of the Baltic Sea biodiversity.

Recognizing that some actions agreed upon in the original BSAP are yet to be completed, the Meeting also decided on renewed efforts to fulfil the existing BSAP by 2021. Particular focus will be put on addressing those pressures that the [State of the Baltic Sea](#) report identified as most widely-distributed and harmful, including excess nutrients, contamination, underwater noise, invasive alien species, excessive extraction of fish, and physical disturbance of the seabed. Among other things, the Meeting decided to elaborate regional and national actions to limit the impacts of underwater noise on sensitive marine species.

In a significant move towards curbing eutrophication, the Meeting participants committed to developing a Baltic-wide nutrient recycling strategy by 2020, aiming for reduced nutrient inputs to the Baltic Sea and for more efficient use of nutrients. The regional policy will support countries in creating a sustainable and environmentally safe scheme for recycling nutrients in agriculture and from sewage sludge.

A common thread to the decisions made at the Meeting were the Sustainable Development Goals (SDGs) of the United Nations Agenda 2030. The countries around the Baltic Sea have previously agreed to use HELCOM as the regional arena for coordinating work on those SDGs that relate to marine and water issues.

The Meeting agreed that the SDGs will be used as a framework when updating the BSAP. The Meeting participants also highlighted the cooperation within HELCOM as a good example that has much to give to other regional seas in the world.

The outcome of the Meeting – the Ministerial Declaration – forms the concrete framework for the following years' work for a healthier Baltic Sea. The work will take place within the long tradition of regional HELCOM cooperation, based on best available expertise, and involving all Baltic Sea countries and the EU including various sector ministries within countries.

The Ministerial Meeting was chaired by HELCOM Chair Ms Marianne Wenning. Representing HELCOM members were Mr Karmenu Vella (Commissioner for the Environment, European Commission), Mr Esben Lunde Larsen (Minister for Environment and Food, Denmark), Mr Siim Kiisler (Minister of the Environment, Estonia), Mr Kimmo Tiilikainen (Minister of the Environment, Energy and Housing, Finland), Dr Barbara Hendricks (Federal Minister for the Environment, Nature Conservation, Building and Nuclear Safety, Germany), Mr Kęstutis Navickas (Minister of Environment, Lithuania), Ms Karolina Skog (Minister for the Environment, Sweden), Mr Jānis Eglīts (Vice Minister of Environmental Protection and Regional Development, Latvia), Ms Anna Moskwa (Deputy Minister in the Ministry of Maritime Economy and Inland Navigation, Poland), and Mr Nuritdin Inamov (Director of the Department for International Cooperation and Board member of the Ministry of Natural Resources and the Environment, Russia).

The entire Ministerial Declaration is available online at: www.helcom.fi/Ministerial2018

3. HELCOM change of chair

The year 2018 saw the change of chairmanship of HELCOM, with Finland taking over from the European Union on 1 July 2018 for a period of two years until 2020.

a. Major achievements in 2018 under EU tenure

The main priorities of the European Union were on efforts and actions to reach a healthy ecosystem in the Baltic Sea, to foster innovation for a sustainable blue economy, and to tackle the challenge of regional governance.

For its ecosystem priority, the EU focussed on assessing good environmental status with quantitative indicators while responding effectively to key pressures on the Baltic Sea.

One of the key achievements in 2018 under the EU tenure was the publication of the results of the HOLAS II assessment that provided a holistic overview of the state of the Baltic Sea and the pressures affecting it.

The HOLAS II findings are fundamental for guiding future HELCOM work, notably for the update the Baltic Sea Action Plan (BSAP) that was agreed upon in 2018 during the HELCOM Ministerial Meeting in Brussels that was organised by the EU.

On key pressures, during the same meeting, it was furthermore decided to develop a nutrient recycling strategy by 2020.

More main achievements on key pressures in 2018 under the EU tenure were the development of monitoring guidelines for beach litter in coordination with TG Marine Litter, and for underwater noise.

b. Finnish priorities

For their tenure of the HELCOM chair, Finland set their focus on updating the Baltic Sea Action Plan, the reduction of nutrients and nutrient recycling, climate change, and creating synergies between the Agenda 2030 and HELCOM work.

Finland is committed to the update of the Baltic Sea Action Plan, and to finding common solutions to formulate an ambitious and realistic updated BSAP that is based on solid scientific-technical background, involvement of the stakeholders, cross-sectorial working mode of the policy-makers, as well as mobilization of funding for measures and actions.

To address eutrophication, another Finnish priority is the reduction of nutrient inputs and nutrient recycling. Finland is committed to strengthen the nutrient input reduction system based on the agreed Maximum Allowable Inputs, and to dedicate significant effort to formulating Baltic Sea regional strategy on nutrient recycling.

In regards to climate change, Finland wants to ensure that its consequences – such as warming, sea ice decline, anoxia and shifting species ranges – will be taken into account when the BSAP will be updated. Finland also aims to work towards a better understanding of the role of the Baltic Sea in the global carbon cycle.

During its chairmanship, Finland also seeks to create and help maintain strong synergistic links between the Agenda 2030 process and HELCOM work, and to place HELCOM on the global ocean agenda as the major Baltic Sea regional organisation.

The new HELCOM Chair is Ms Saara Bäck from the Finnish Ministry of the Environment, seconded by Vice-chair Ms Tarja Haaranen. Ms Bäck took over from the EU's Ms Marianne Wenning.

4. Monitoring and assessment

a. Indicators

The HELCOM State of the Baltic Sea Report builds upon experience gained from the HELCOM initial holistic assessment in 2010, which relied on less than 10 operational core

indicators. The regional development of indicators and assessment methods has progressed significantly since then and HELCOM now has a catalogues of over 30 functional and regionally agreed indicators in place, covering both biodiversity and human induced pressures and impacts.

The core indicators were selected according to a set of principles, including ecological and policy relevance, measurability with the monitoring data and linkage to anthropogenic pressures. They function as the foundation of the overall status assessment, and they in turn are based on the HELCOM coordinated monitoring programme. Each indicator is commonly agreed among the Contracting Parties and has regionally agreed threshold values or targets. The indicators are assessed according to defined assessment units representing different spatial levels, in a regionally agreed nested system. This approach enables each core indicator to be assessed at its most relevant spatial scale and for comparisons across indicators and geographical areas to be made. Once this evaluation is done the results indicate whether status is good or not according to each of the core indicators. In addition, the indicator results are combined into integrated assessments for biodiversity, eutrophication and contamination, enabling us to get an idea of the overall status under each topic.

Although the core indicators were developed to measure the progress towards reaching Baltic Sea Action Plan (BSAP) objectives, for those Contracting Parties that are also EU Member States, the core indicators can also be used to assess criteria under the EU Marine Strategy Framework Directive (MSFD). More recent developments have also been initiated to incorporate the commitments of Contracting Parties to the United Nations Sustainable Development Goals (SDGs), particularly SDG 14, into HELCOM work. This has for example taken place through sharing experiences of indicator development and taking part in UN Environment led expert workshops where the development of eutrophication and marine litter indicators has been the focus.

The State of the Baltic Sea assessment is based on currently available core indicators. For some elements, operational indicators are still lacking or limited. This is true e.g. for benthic and pelagic habitats, health of marine mammals and food webs. The further development of core indicators to reach a more complete assessment is a prioritised HELCOM activity.

b. Nutrient load

Various land-based pollution remains the major source of environmental pressure on the Baltic Sea ecosystem. This pressure includes eutrophication caused by excess supply of nutrients to the marine environment. HELCOM Pollution Load Compilation (PLC) compiles data on nutrients, focusing on annual and periodic assessments of inputs of nutrients and selected hazardous substances. 2018 marks the year when the PLC-6 periodic assessment was successfully finalized and approved by HELCOM Heads of Delegation. The project has been running since 2012 and focuses on the years 2014 and 2015.

A significant reduction of nutrient inputs has been achieved for the whole Baltic Sea by 2015. The last assessment shows that the normalized input of nitrogen was reduced by 12%

and phosphorus by 25% since the reference period (1997-2003). The Maximum Allowable Inputs (MAI) of nitrogen in this period were fulfilled in the Kattegat, Danish Straits, Bothnian Bay and Bothnian Sea. MAI for phosphorus input is fulfilled in the Kattegat, Danish Straits and Bothnian Sea.

Progress toward national targets for nutrients input reduction was analysed for each country to each sub-basin in 2014.

Denmark is the only country that has fulfilled nitrogen ceilings to all Baltic Sea sub-basins. Finland and Sweden met their nitrogen ceilings to all sub-basins except the Baltic Proper and the Gulf of Finland, where the missing reduction is less than 10% of the input ceilings for these countries. Russia exceeded national ceilings to all sub-basins. There was not a single country reaching phosphorus input ceilings for all Baltic Sea sub-basins. All HELCOM countries and non-HELCOM countries with waterborne inputs exceeded input ceilings for the Baltic Proper.

Assessment of sources and pathways of nutrients into the Baltic Sea environment in 2014 is one of the major products of the PLC assessment. Nitrogen and Phosphorus reaches the Baltic Sea via three major pathways. It can be transported by rivers (riverine input), deposit from air (airborne input) and discharged directly to the Baltic Sea from various industrial or municipal waste water treatment facilities located on the sea coast.

The total average inputs for both phosphorus and nitrogen for the entire Baltic Sea have reduced over time. However, the reduction achieved in 2014 since 1995 was not equal for different pathways. The highest reduction was achieved for direct sources. The proportion of the direct source was reduced from 5.5% to 3.8% for nitrogen and from almost 11% to almost 6 % for the phosphorus input.

Of riverine input natural background load of nitrogen and phosphorus constituted one third of the total load. However, there are large differences for the different basins. The anthropogenic diffuse sources (mainly from agricultural activities) make up 46% of the total riverine nitrogen load and 36% of the total riverine phosphorus load to the Baltic Sea. Point sources constitute 12% of the total nitrogen load and 24% of the total phosphorus load.

The seven biggest rivers of the Baltic Sea (Göta, Kemi, Daugava, Nemunas, Oder, Vistula and Neva) cover 50% of the Baltic Sea catchment area and are inhabited by over 50 million people. In 2014 the seven rivers exported 227,000 t TN and 15,300 t TP into the Baltic Sea, which was 29% of the TN input of the Baltic Sea and 46% of the respective TP input.

The evaluation of the effectiveness of measures to reduce the input of nutrients to the Baltic Sea is one of the additional PLC-6 project deliverables and is based on countries' responses to a questionnaire. The questionnaire revealed a very high variability of the reported estimates between countries caused by various non-harmonized assessment methods and a remarkable difference in both temporal, geographical and sectoral data coverage. In general, these data deficiency and inconsistency impeded the quantification of the effects of measures across the region providing information only for a narrative description of the undertaken and planned measures.

5. Nutrient recycling

According to the results of the State of the Baltic Sea report from 2018, 97 % of the Baltic Sea area suffers from eutrophication caused by nutrient loading. Agriculture remains a large source of nitrogen and phosphorus runoff to the sea. Nutrients that escape the fields and make their way to the watercourses and eventually the Baltic Sea are also a financial loss for the farmer. The better the plants can utilize the nutrients in fertilizers and the less nitrogen and phosphorus leaching there is, the better it is for the environment and the farm economy. The aim is to close the nutrient loops and recycle nutrients in the food system so that as little as possible would be lost to the Baltic Sea.

HELCOM members agreed to elaborate a Baltic Sea Regional Nutrient Recycling Strategy by 2020. The aim is to reduce nutrient loading to and eutrophication of the Baltic Sea by circulating the nutrients in the food chain. The main focus is on safe nutrient recycling in the agricultural and waste water management sector. HELCOM Agri Group is leading the work in cooperation with HELCOM Pressure Working Group. Baltic Sea region countries, EU and stakeholders from agriculture and waste water sector as well as environmental NGOs are involved in the work that is led by Finland.

Knowing the nutrient content and amount of manure is important for managing nutrients efficiently and reducing nutrient losses. In the HELCOM 2013 Ministerial Declaration the Contracting Parties committed to establishing by 2016 national guidelines or standards for nutrient content in manure and to develop by 2018 guidelines or recommendation on the use of such standards. “Advanced manure standards for sustainable nutrient management and reduced emissions” (Manure Standards) project, running from 2017 to 2019, continued to help the countries to fulfil this commitment and provide better tools for efficient manure use.

A new project platform “Sustainable manure and nutrient management for reduction of nutrient loss in the Baltic Sea Region” (SuMaNu) co-funded by EU was launched to collect information from previous agriculture-related projects and share their best practices. The platform will support elaborating the nutrient recycling strategy and updating the agriculture part of the Baltic Sea Action Plan.

6. Fisheries

Fisheries contribute substantially to the economy and are also an important element in the cultural heritage of the Baltic Sea. HELCOM is working on the coordination and development

of fisheries management based on the ecosystem approach in order to enhance the balance between sustainable use and protection of natural marine resources.

HELCOM seeks to recognize the interactions between fisheries and environmental conservation objectives, with the view to contribute to achieving the objectives of fisheries and environment policies simultaneously.

However, the fisheries sector in the Baltic Sea is among the sectors having the largest environmental impact on the status of the marine environment, including its biodiversity.

This is also illustrated by the 2018 HELCOM report "[Status of coastal fish communities in the Baltic Sea during 2011-2016 – the third thematic assessment](#)" which concludes that only about half of the assessed areas are in a good state.

As highlighted in the report, fishing regulations including permanent or temporary no-take areas, gear regulations, and habitat protection and restoration are measures that have shown to have a positive effects on fish populations.

The overall status of coastal fish communities varies between geographical areas, with the north of the Baltic Sea faring slightly better than the south. For cyprinids, on the other hand, the status is often insufficient due to overabundance, especially in the north-eastern part of the Baltic Sea. In being in the central part of the food-web, coastal fish are of key ecological and socio-economic importance, and their status often reflects the general health of coastal ecosystems.

The above mentioned report is one of the key outputs from the successful HELCOM FISH PRO II project, which has focused its work on reporting of coastal fish for the purpose of the HOLAS II project. FISH PRO II will be succeeded by the HELCOM FISH PRO III Project (2019-2020).

Another ongoing project is the three-year (2017-2020) RETROUT Project, a flagship project of the EU Strategy for the Baltic Sea Region Policy Area Bioeconomy, which is co-financed by Interreg Baltic Sea Region Programme. As recreational fishing in the Baltic Sea has unused potential, the overall scope of RETROUT is to develop and promote the Baltic Sea Region as a coastal fishing tourism destination, with focus on sea trout.

HELCOM is responsible for the strategic planning and coordination of a Work Package to compile information on the status of sea trout rivers and stocks, evaluate different river restoration methods and technological solutions, and to recommend best practices and management options.

During 2018, HELCOM specifically contributed to plan and prepare a "Monitoring and assessment method workshop in Lithuania", advancing the project goal of an agreed methodology for assessing sea trout river and stock status. HELCOM was also centrally involved in the planning phase of the task on "Assessment of sea trout river and stock status", to take the work forward during 2019.

Additionally, HELCOM has been involved in the project activity on “Joint evaluation of completed restoration projects” by participating in the development of a case study template on past river restorations, and by coordinating and communicating the subsequent data request that was distributed, especially being responsible for the contacts to non-partner HELCOM Countries.

7. Marine Protected areas

The aim of the coastal and marine Baltic Sea protected areas (HELCOM MPAs) is to protect valuable marine and coastal habitats in the Baltic Sea. This is done by designating sites with particular nature values as protected areas, and by managing human activities within those areas. As early as 2010 the Baltic Sea was the first sea in the world to reach the Aichi target of more than 10% of the area being under protection.

Today there are 176 HELCOM MPAs, covering about 12% of the Baltic Sea. In 2018, Finland, Russia and Sweden all announced their intention to propose a number of new areas to be included in the HELCOM network.

Although the HELCOM region is a global leader when it comes to MPA coverage, MPA management and management effectiveness has been identified as an area where significant progress is needed. The sea knows no borders, and many time neither do the species living in it, nor the trials associated with MPA management. This this results in protected areas managers often facing similar challenges across the region, and that management efforts in one protected area can directly affect the effectiveness of another.

To this end the first ever HELCOM MPA management workshop was held in September 2018, back-to-back with an EU Natura 2000 biogeographical workshop. The workshop sparked closer cooperation between managers in the HELCOM region, and provided them with a platform to discuss experiences, exchange best practices and identify gaps and challenges related to marine protected areas management in the region.

The possibility to share experiences was considered so beneficial that a unanimous recommendation for a persistent MPA management network to be established under the auspice of HELCOM came of the workshop. In addition to being a forum for exchanging experiences and learning from each other the network can function as a hub for new initiatives and consortia for project work across borders. The network could also be used as a platform for identifying common management challenges on regional level and facilitate the work on e.g. cross-border management. The proposal was in principle supported HELCOM Heads of Delegation in December.

In the end a protected area is only as good as its management and in 2018 HELCOM embarked on strengthening the management at the implementation level, by supporting the work of local managers, and thereby the effectiveness of Baltic Sea MPAs.

a. EBSA

In November 2018, nine [Ecologically or Biologically Significant Marine Areas](#) (EBSAs) in the Baltic Sea were added to the UN Biodiversity's global repository of EBSAs.

Altogether, the nine new EBSAs cover 23 percent of the Baltic Sea waters. Five are transboundary areas, spanning over waters of two or more countries.

Describing these EBSAs was a commitment by HELCOM made at the UN Ocean Conference in New York in 2017, a pledge of the Baltic Sea region for advancing the [ocean-related Sustainable Development Goal](#) (SDG 14).

The new EBSAs were identified in Helsinki earlier in February 2018 during the [Baltic EBSA workshop](#) convened by UN Biodiversity (also known as the [Convention on Biological Diversity](#) – CBD) in collaboration with HELCOM, with financial support from Finland and Sweden.

According to UN Biodiversity that keeps the [registry](#), EBSAs are "special areas in the ocean that serve important purposes, in one way or another, to support the healthy functioning of oceans and the many services that it provides." EBSAs are usually characterized by unique biological features.

Knowing the position of these areas will also facilitate maritime spatial planning (MSP), notably in transboundary areas.

In addition to being of value to maritime spatial planning that is based on the [ecosystem approach](#), the EBSAs could also contribute to the red-listing of threatened species and biotopes, the evaluation of effectiveness and coherence of marine protected areas (MPAs) networks, and future [HELCOM assessments of the state of the Baltic Sea](#).

The description of the EBSAs was based on [scientific data compiled by Duke University](#), including a large number of biogeographic, biological and physical datasets and analyses available in HELCOM.

Since 2011, the CBD Secretariat has convened 13 regional EBSA workshops, assessing more than 74 percent of the world's total ocean surface. A set of seven criteria is currently being used to describe EBSAs, notably focussing on uniqueness, vulnerability and biological diversity of the marine area.

8. Maritime spatial planning

a. A well-established cooperation for MSP in the Baltic Sea Region

The 2018 HELCOM Ministerial Meeting raised the bar to improve regional governance. The HELCOM Contracting Parties agreed that an ecosystem-based approach is essential for planning human activities at sea as well as to ensure the implementation of the United Nations Sustainable Development Goals (SDGs), particularly the SDG 14 on the sustainable use of the oceans, seas and marine resources. It is supporting the well-established HELCOM-VASAB MSP Working Group, where the concept of green infrastructure and blue corridors are one of the important topic discussed between the national representatives.

The management and description of Marine Protected Areas (MPAs) and Ecologically or Biologically significant Marine Areas (EBSAs) is a key topic for MSP in the Baltic Sea Region. A workshop, organized in cooperation with the Secretariat of the Convention on Biological Diversity, Finland, Sweden and the HELCOM Secretariat, was held in Helsinki in February 2018. The participants identified nine transboundary areas that should be qualified as EBSA. Experts in MSP and biologists are also working together to describe essential fish habitats that should be taken into account when the countries are drawing their national plans. During a workshop in Riga co-organized by Latvia and HELCOM, the participants used the current knowledge to highlight where are the relevant areas such as spawning areas or nursery areas for different fish species.

b. Full-speed with MSP related data

To produce the HELCOM Second Holistic Assessment of the Ecosystem Health of the Baltic Sea (HOLAS II), several datasets were required to spatially highlight the human activities and their potential pressures in the Baltic Sea marine environment. The ninety datasets focused on the distribution of human activities, pressures and ecosystem components were compiled to cover the Baltic Sea Region. The HELCOM Maritime Assessment, also contributes to the Holistic Assessment with newly-created shipping density maps in the Baltic Sea Region. All these updated and MSP related datasets are made available on the Map and Data Service, an interface to find and browse the numerous maps.

One of most MSP relevant outcome of HOLAS II is the Baltic Sea Impact Index (BSII) assessing the potential cumulative impact on the marine environment. This index can support MSP in terms of the implementation of the Ecosystem-based Approach and raise awareness on the spatial distribution of human induced pressures to the environment. The index also shows that regionally harmonized and high-quality data sets are important to give region-wide information.

An important step to share updated and relevant data for MSP was taken under the EU co-funded project Baltic LINes. The first version of BASEMAPS, an innovative solution, allows to have access to decentralized datasets from different providers in the Baltic Sea Region. It

aims to make available to relevant and the most up-to-date information for planners and MSP stakeholders. BASEMAPS was originally built for data related to shipping routes and energy corridors, but its scope is already expanded. The project Pan Baltic Scope is already using BASEMAPS to display the Maritime Spatial Plans provided from the HELCOM Contracting Parties.

During 2018, the well-established Baltic Sea Region MSP Data Expert Subgroup focused its tasks to set out technical requirements to share the national spatial data sets of plans, with the support of the Pan Baltic Scope project. It resulted in the Guidelines on transboundary MSP output data structure that were adopted by the 17th meeting of the HELCOM-VASAB MSP Working Group.

9. HOLAS II/State of the Baltic Sea report

HELCOM published the final version of the State of the Baltic Sea report in 2018, providing a complete insight about the ecological state of the Baltic Sea and the pressures affecting it. The report shows that, despite improvements, the sea is not yet in a good state, with eutrophication causing the major stress.

Approved by all [HELCOM member countries](#), the report is based on verified scientific evidence stemming from a recently concluded HELCOM assessment – the [HELCOM Second Holistic Assessment of the Ecosystem Health of the Baltic Sea](#), or HOLAS II. It is the most comprehensive baseline currently available on the Baltic Sea.

The report holds a wealth of information about the ecological state of the Baltic Sea and the pressures affecting it, making it an important knowledge and decision-making tool for environmental policy makers, researchers and Baltic Sea stakeholders such as industries and businesses.

For the first time, economic and social analyses (ESA) and the evaluation of cumulative impacts have also been included in the assessment, to help quantifying the benefits we get from the sea and the economic losses due to inadequate ecological status.

According to the State of the Baltic Sea report, improvements are seen in the reduction of inputs of nutrients and hazardous substances into the Baltic Sea. The progress made so far shows that concerted Baltic Sea regional collaboration leads to tangible results.

However, the ecological objectives set by the [Baltic Sea Action Plan](#) seeking to attain a healthy Baltic Sea by 2021 have not yet been attained.

The major pressure on the Baltic Sea remains eutrophication, affecting 97 percent of the waterbody. The current total losses attributed to eutrophication – excessive growth of algae

that upsets the sea's ecosystem – are estimated to be in the range of EUR 3.8 to 4.4 billion annually for the region.

Plastic pollution – especially from microplastics –, pharmaceutical residues, underwater noise and effects from climate change are some of the current additional pressures. The report also finds that the Baltic Sea's biodiversity is not in a good state. Fish stocks, marine habitats and mammals such as the harbour porpoise and the ringed seal are particularly affected.

A major conclusion of the report is that more actions are needed to improve the Baltic Sea's environmental status. Based on the findings of the report, efforts are underway to update the BSAP beyond its due date in 2021 (see BSAP update chapter).

Go to the report: <http://stateofthebalticsea.helcom.fi>

10. Response to spills

HELCOM is continuing its efforts in ensuring sufficient and coordinated response to maritime pollution incidents e.g. by agreeing on improvements and updates to the important HELCOM Response Manual.

In order to test and strengthen the ability to respond to such incidents, Contracting Parties regularly carry out various exercises, both nationally and jointly. In 2018, the annual BALEX DELTA exercise was held in Karlskrona, Sweden from 28 to 30 August. With additional support from the European Union through its DG ECHO programme, the 2018 edition was larger than usual, dealing with both oil and chemical spills, and with response exercises held at sea and also on shore. The BALEX DELTA 2018 exercise mobilized about 500 personnel from eight countries and the EU. 18 maritime vessels, one aircraft, one helicopter and various clean-up tools were also deployed in the exercise which was deemed to be very useful. Through its observer programme, the exercise also attracted participants from many countries outside the region including the Southern and Eastern EU neighbourhood. To ensure continuity and capitalize on the lessons learnt, the results of the BALEX DELTA 2018 exercise will be presented at the “Lessons identified and Final conference” to be held in Helsinki in April 2019.

The EU co-funded and HELCOM-led OpenRisk project completed its work at the end of 2018 after two years working on methods for maritime risk assessments on accidental spills. One of the main outputs of the project was the "[OpenRisk Guideline for Regional Risk Management to Improve European Pollution Preparedness and Response at Sea](#)", which was published in November 2018 and provides guidelines and methods for maritime risk management.

HELCOM is also cooperating with regions outside the Baltic Sea to strengthen international cooperation on pollution response. In 2018, HELCOM engagement in a joint project application on updating regional response manuals on chemical spills was confirmed

through partnership in the EU co-funded West MOPoCo project, together with e.g. the Mediterranean (REMPEC) and North Sea (Bonn Agreement). Through this project, an inter-regional response manual for chemical spills will be developed, thereby also renewing the HELCOM Response Manual Volume 2.

11. Shipping

The year 2018 marks the completion of the most comprehensive assessment of maritime activities in the Baltic Sea currently available. The HELCOM Maritime Assessment 2018 covers a wide range of human activities at sea, from commercial maritime traffic to leisure boating and from fisheries to hazardous submerged objects. It describes distribution of activities at sea, developments over time, related environmental issues as well as future perspectives and scenarios.

With regard to shipping, the Assessment highlights that many types of ship-based pollution have been effectively dealt with in the Baltic Sea over the last decades, including 90% reductions in both operational oil spills and sulphur oxide (SO_x) emissions from ships exhaust gases. For other types of ship-based pollution, recent decisions will result in more reductions in the near future. Those decisions include banning of untreated sewage discharges by 2021 and a requirement of 80% reduction of nitrogen oxide (NO_x) emissions for new ships built 2021 or later. However, some types of ship-based pollution remain unquantified, including litter, chemical residuals, and anti-fouling paints, and others, such as underwater sound, are yet to be thoroughly addressed. The concluding chapter of the report explores future scenarios of maritime traffic and related environmental regulations. In striving towards reduced emissions from ships, alternative fuels and other novel technologies are of paramount importance. In this respect, the HELCOM Maritime sub-group GREEN TEAM is working to promote public and private co-operation at national and Baltic Sea levels to enhance development and uptake of such emerging solutions. HELCOM MARITIME 18-2018 approved the establishment of the GREEN TEAM Reporting mechanism and method based on the traffic light idea, developed by the Green Team. This mechanism is designed to find out the main barriers, obstacles and challenges hindering the development and investments in green technology and alternative fuels in the Baltic Sea. The aim is to have structured and transparent collaboration between the public and private sector for a safer, more environmentally friendly and energy efficient transport by sea. The reporting will be used to share information and experiences, and to find common, workable and sustainable solutions.

In addition, on reducing emissions from ships, HELCOM started work on the revision of the HELCOM Recommendation 28E/13 on “Introducing Economic Incentives as a Complement to Existing Regulations to Reduce Emissions from Ships”.

Invasive alien species introduced with shipping as a vector continue to be a concern globally and in the Baltic Sea. Ballast water is one of the two main vectors for such invasions, and the

Joint HELCOM/OSPAR Task Group on Ballast Water Management Convention Exemptions (HELCOM/ OSPAR TG BALLAST) has continued working on the regional aspects of implementing the IMO Ballast Water Management Convention, which entered into force globally in September 2017. The other main vector, biofouling on ships' hulls, does not yet have any international regulations to prevent species invasions. Discussions on the matter have in 2018 started both in the Maritime Working Group as well as TG BALLAST, and in addition HELCOM has joined the GEF/UNDP/IMO GloFouling Partnerships project as a strategic partner, to support the initiative based on the COMPLETE project, in which HELCOM is involved, and other available resources and material including the core indicator on non-indigenous species.

12. Climate change

The challenges presented by climate change are by their nature a regional concern, covering aspects from science to high level policy. This requires a regional and inclusive working structure to allow the challenges to be tackled in an effective manner. In 2018 a proposed process for dedicated climate change work within HELCOM was elaborated.

The ultimate aim of HELCOM work on climate change has been identified as increasing the resilience of the system of the Baltic Sea with regards to climate change impacts. To achieve this, the climate change work within HELCOM needs to focus on a long-term, multi-disciplinary approach to understanding and communicating the implications of climate change. The lag time in transferring this quality assured science to the policy level, including providing clear guidance on the levels of confidence, needs to be reduced to ensure that the most current information is accessible to support decision making.

To support this the following objectives were agreed on:

- building HELCOMs function as a regional platform for a policy-science dialogue on climate change;
- provisioning of robust, policy relevant, research-based knowledge on the state, impacts and vulnerabilities of the Baltic Sea and its surroundings to climate change;
- reviewing policies in the light of climate adaptation.

So how does one go about doing this? The first steps in this process was the establishment of an Expert Network on Climate Change (EN CLIME), and to start preparing a facts sheet on effects and impacts of climate change in the region. Both of these function as instruments to reduce the lag time for transferring quality assured science to end users, ensuring that new scientific findings on climate change and its impacts on oceans and seas is visible in marine policy making, as well as find their way into HELCOM decision-making and the day to day work.

It is inherently recognised that other organisations and institutions around the Baltic Sea, and on the international stage, work closely with climate change related issues and policies at different levels. It is the hope that the HELCOMs work can support and/or complement already ongoing initiatives and vice versa.

13. Species and biotopes

b. Sturgeon Action Plan

The Baltic sturgeon which populated the Baltic Sea and its tributaries for more than 1500 years, was an integral part of the Baltic fauna until the middle of the 20th century. Yet due mainly to overfishing and habitat alteration sturgeon has disappeared from the Baltic Sea. In 1996, a female sturgeon with a weight of 135 kg and a body length of 2.7 m was caught in Estonian waters. It was the last report of a catch. Today, the sturgeon is considered regionally extinct according to the 2013 “HELCOM Red List of Baltic Sea species in danger of becoming extinct” (BSEP No. 140).

However, despite ongoing re-introduction measures (such as the establishment of ex situ stocks and the subsequent releases of juvenile sturgeons) the situation, with no remaining functional population in the Baltic Sea area, is still dramatic. The HELCOM-Action Plan for the protection and recovery of Baltic sturgeon *Acipenser oxyrinchus* aims to prevent the Baltic sturgeon from full extinction, and in the mid-term, to re-establish viable populations of the Baltic sturgeon in the same areas where it was historically found. It suggests effective protection measures and can therefore guide HELCOM and the Baltic Sea States to meet their commitments arising from the BSAP, as well as under other international agreements (e.g. the Bern and Bonn Conventions, CBD targets, and for EU Member States, the Habitats Directive).

Concerted actions are urgently required to improve the conditions under which the species can recover within two generation periods. The successful implementation of this Action Plan will revive the Baltic sturgeon from near extinction to a self-sustaining population level.

c. New HELCOM Recommendation on conservation of biotopes and habitats

The HELCOM Red List assessment (BSEP 138) identifies biotopes, habitats and biotope complexes that are under threat of collapse. It does this by assessing decline in quantity or quality of the biotope and identifying threshold values for each threat category. 59 biotopes can be found on the red list. Most of these biotopes are threatened due to eutrophication, indirectly causing oxygen depletion in the deep areas. Many of the deep biotopes occurring

on soft sediments have also declined due to destructive fishing methods such as bottom trawling. However, identifying threat status is only the first step in the process, measures then need to be put in place to protect the area in question.

HELCOM 2013 and 2018 Ministerial Meetings agreed to take measures so that the loss of all red listed marine habitats and biotopes in the Baltic Sea will be halted, to support their recovery, and to significantly reduced degradation and fragmentation. To support this, the ministers agreed to develop a new HELCOM Recommendation on for habitats and biotopes which are at risk of extinction.

In 2018 significant progress was made to finalize the new HELCOM Recommendation on threatened biotopes and the Recommendation was finally adopted at 40th meeting of the Helsinki Commission in early 2019.

The Recommendation recognizes that the threatened Baltic Sea habitats and biotopes may are not covered by existing regulations and can therefore require protection beyond the scope of existing measures in order to achieve the Aichi Targets, the Baltic Sea Action Plan (BSAP), and ,for EU Member States, the aims of the MSFD and Water Framework Directive (WFD). It also provides guidance on concrete ways that the Baltic Sea countries can use to ensure that threatened biotopes in their area recover and thrive.

14. Marine litter and underwater noise

HELCOM identifies marine litter and underwater noise as two of the seven distinct pressures affecting the Baltic Sea.

Marine litter is a clearly visible problem along the Baltic Sea coastline. It also appears under the surface and in many different size classes. The smallest microlitter is invisible to the human eye, but reaches the marine food web when animals ingest it. Larger marine litter deteriorates habitat quality and can cause direct harm to animals when they swallow it or become entangled. Around 70 % of the marine litter in the Baltic Sea is plastic. Plastic materials are of special concern due to their risks to the environment and slow degradation. The regional goal agreed in HELCOM is to reduce the amount of marine litter significantly by 2025 and prevent harm from litter in the coastal and marine environment.

Sound is continuously present in the underwater environment, and is produced naturally for example by wind, waves, ice, and thunder storms, as well as by animals. Human activities cause additional sounds which may have a polluting effect. These are typically by-products of marine activities and infrastructure, such as shipping, bridges, or underwater construction work, but are also spread deliberately by the use of echo-sounders, sonars and seismic airguns, for example. HELCOM has developed monitoring of underwater sound, and agreed that underwater sound should not have negative impact on marine life in the Baltic Sea.

In terms of advances on monitoring, this year has been very productive for this action area, since monitoring guidelines for marine litter on beaches and continuous noise have been adopted. Furthermore, countries also agreed on the monitoring sub-programme for continuous noise. Work is on-going on arrangements for hosting of indicator data for continuous noise. Countries keep on annually reporting data to the [registry](#) of impulsive licenced events. To ease the process the reporting format to the OSPAR-HELCOM registry of underwater noise was updated in 2018.

The 'Second HELCOM Holistic Assessment of Ecosystem Health in the Baltic Sea' reflecting the environmental situation in the Baltic Sea for the period 2011–2015 ('State of the Baltic Sea report, June 2017'), contained, for the first time, descriptive sections on marine litter and underwater noise (since there is no core indicators neither for marine litter nor for underwater noise).

The [section on marine litter](#) was updated as part of the update of the report conducted in June 2018 ('[State of the Baltic Sea – Second HELCOM holistic assessment 2011-2016](#)'), to mainly include information on: (i) the ten most frequent litter items at Baltic Sea level at different types of beaches, categorized into urban, peri-urban and rural beaches; and (ii) the proportion of marine litter material categories in bottom trawl hauls for sub-basins covered by the Baltic International Trawl Survey coordinated by ICES.

The [section on underwater sound](#) was also updated to mainly: (i) improve the maps showing the sound pressure level of underwater continuous sound at different frequency bands in the Baltic Sea; (ii) include a table compiling impulsive event days in the Baltic Sea as reported by countries to the regional registry (by April 2018); (iii) improve the figure showing the auditory range of some marine species present in the Baltic Sea and sound frequencies generated by human activities; and (iv) improve the map containing an example of how information on the distribution of sound can be compared with important areas for species that are sensitive to sound. In addition to the specific section on underwater sound, the 'Input of continuous anthropogenic sound' layer (used in the Baltic Sea Pressure Index-BSPI) was improved based on data from the BIAS project. Also the data layer 'Input of continuous anthropogenic sound', which is used in the Baltic Sea Pressure and Impact Indices, was further refined.

Proving its commitment on marine litter issues at international level, HELCOM joined a [collective statement by the Regional Seas Conventions and Programmes to the second meeting of the United Nations Ad Hoc Open-Ended Expert group on marine litter and microplastics](#). Back home, HELCOM countries reiterated their commitment to work hard on marine litter and underwater noise issues through the inclusion of specific sections on these topics in their [Ministerial Declaration 2018](#).

The Regional Action Plan on Marine Litter continues its implementation phase (latest follow up, from May 2018, can be found [here](#)). Advances made on abandoned, lost and otherwise discarded fishing gear (ALDFG) are to point out, where information on national activities on ALDFG have been compiled thanks to the contribution of all HELCOM countries. This overview will enable the definition of further actions to take on this issue. Also to point out,

the “Principles for design reducing/ preventing marine litter” evolved from the HELCOM-Interreg workshop on marine litter and eco-design held on 15 June 2018 in Berlin, Germany. Actions on microplastics will greatly benefit from the project [FanPLESStic-sea project](#) – “Initiatives to remove microplastics before they enter the sea” where HELCOM is partner. The project was granted funding by the EU INTERREG Baltic Sea Region at the end of 2018 and will be running from January 2019 to June 2021. And last but not least raising awareness is a topic of high relevance for the region which is supported by the “Clean Beach Campaigns” activities held around the region.

In terms of cooperation, informal cooperation between OSPAR, UNEP-MEDPOL and HELCOM as well as countries being part of two of these Conventions continued also during 2018. This informal cooperation, which meets annually since 2014, aims at identifying possibilities for cooperation within the implementation process of the Regional Action Plans on Marine Litter. Moreover, common actions in the three Action Plans catalogued as ‘priority’ actions have been identified. In 2018, the meetings also counted with the participation of representatives from the EU. HELCOM work on marine litter is also carried out in close collaboration with the EU’s Technical Group on Marine Litter (TG Marine Litter).

Effects of noise on the level of population are still very poorly understood, and good status for populations in relation to underwater noise has therefore not yet been defined. To guide further work, after a long and constructive discussion process, HELCOM agreed on the “HELCOM input to the process of establishing environmental targets for underwater noise”. The HELCOM input is to serve as regional input to other fora, including other Regional Sea Conventions as well as European processes. The document was presented at the EU TG-NOISE Thematic workshop: “Towards thresholds for underwater noise - Common approaches for interpretation of data obtained in (Joint) Monitoring Programmes – Part 2” (7-8 November 2018, Brussels, Belgium).

15. BSAP update

Update of the Baltic Sea Action Plan

The Baltic Sea Action Plan, HELCOM's strategic tool for a healthy Baltic Sea, is set to come to an end in 2021. The objectives of the BSAP haven't yet been reached, but the BSAP has shown promising results towards improving the environmental status of the Baltic Sea.

The mandate for an update was therefore given by the Brussels Ministerial Declaration in March 2018. Contracting Parties decided to update the BSAP by 2021 at the latest, with the aim being to set out a robust action plan for the achievement of the comprehensive HELCOM vision – a healthy Baltic Sea environment.

Regardless, the current priority still lies on implementing the agreed upon actions as laid out by the current BSAP by 2021.

The updated BSAP will be adopted in autumn 2021 under the German chairmanship of HELCOM.

Why will the BSAP be updated?

The ecological objectives of the BSAP are unlikely to be fully achieved by 2021, and the Baltic Sea will most likely not reach good environmental status by then. Nevertheless, various trends are pointing towards improvements. Having produced tangible results, the BSAP has been instrumental in these advances. HELCOM and its members have therefore decided to update and reconduct the BSAP after 2021.

The updated BSAP will:

- take into account latest scientific knowledge about the ecosystems
- use water and ocean related SDGs as a framework
- analyse the efficiency of current measures
- in addition to existing commitments, address new issues such as underwater noise, marine litter, microplastics, pharmaceuticals, and seabed damage and disturbance
- take the foreseen climate change impacts into account.

The guiding principles of the updated BSAP

The updated BSAP will be guided by:

- The fundamental principles of the Helsinki Convention and principles of the current BSAP, namely “Baltic Sea unaffected by eutrophication”, “Baltic Sea with life undisturbed by hazardous substances”, “Maritime activities carried out in an environmentally friendly way”, and “Favourable conservation status of Baltic Sea biodiversity”.
- The adopted HELCOM vision “A healthy Baltic Sea environment, with diverse biological components functioning in balance, resulting in a good environmental/ecological status and supporting a wide range of sustainable human economic and social activities”
- The Ocean-related UN Sustainable Development Goals and associated targets, and in particular SDG 14 “Conserve and sustainably use the oceans, seas and marine resources for sustainable development”, which will be used as a framework in updating the BSAP.

Overall organization and division of responsibility for the BSAP update

- **HELCOM Heads of Delegation:** The HELCOM Heads of Delegation – the representatives of each HELCOM Constituent Party – will provide the overall guidance for the BSAP update process.
- **HELCOM groups:** Finer details and aspects of the BSAP update will be dealt with by the existing working structure, in particular by the HELCOM Working Groups.
- **BSAP-UP project:** the BSAP-UP project functions at an operational internal level to support and facilitate the work of the Contracting Parties to update the BSAP.
- **SOM platform:** the Sufficiency of Measures (SOM) platform is a HELCOM group at expert level tasked with analysing the sufficiency of current measures for good environmental status in the Baltic Sea.
- **ACTION project:** the Actions to Evaluate and Identify Effective Measures to Reach GES In The Baltic Sea Marine Region (ACTION) is a HELCOM coordinated project that is co-financed by the EU. The project is designed to contribute to the update of the [HELCOM Baltic Sea Action Plan](#) by 2021 and can also be used by HELCOM Contracting Parties that are also EU Member States in updating and implementing their MSFD Programme of Measures.

16. HELCOM involvement in international partnerships and frameworks

- **World Ocean Assessment II (WOA II):** An initiative of the [UN Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects](#) (Regular Process), WOA II aims to support informed decision-making for sustainable management of oceans and seas, in accordance with international law, including the [United Nations Convention on the Law of the Sea](#) and other applicable international instruments and initiatives. The HELCOM HOLAS II assessment and the resulting HELCOM State of the Baltic Sea report already cover the majority of the aspects foreseen in WOA II. HELCOM Secretariat and the HELCOM countries are engaged in the WOA II assessment via providing expertise to the writing teams and pool of experts, participation in WOA II workshops and offering synthesized information for the use in the assessment.
- **UN Biodiversity (Convention on Biological Diversity):**
 - **Sustainable Ocean Initiative (SOI):** The Sustainable Ocean Initiative (SOI) was launched by the Convention on Biological Diversity (CBD), also known as UN Biodiversity. The goal of the SOI is to facilitate dialogue between Regional

Seas Organizations and Regional Fisheries Bodies, with a view to support the [Aichi Biodiversity Targets](#) and the relevant [Sustainable Development Goals](#). Within the SOI, HELCOM notably shared its experience on developing and implementing policies for ocean governance at the regional level, as well as its knowledge on ecosystem-based maritime spatial planning and harmonized implementation of the [IMO MARPOL Convention](#) to limit discharges of sewage and air emissions from ships.

- **Ecologically or Biologically Significant Marine Areas (EBSAs):** HELCOM co-partnered with UN Biodiversity to describe nine Ecologically or Biologically Significant Marine Areas (EBSAs) in the Baltic Sea region. EBSAs are particularly useful in maritime spatial planning, especially for transboundary areas (see the EBSA chapter for more details).

- **BANOS CSA:** since November 2018, the BANOS CSA (Baltic and North Sea Coordination and Support Action) project advances cooperation between the Baltic and North Sea sub-basins, and is an important step towards a stronger involvement of the Baltic Sea region at a worldwide level, notably on providing solutions for global ocean management. BANOS CSA is constituted of major research and innovation funds and organizations from 12 countries, as well as of four transnational bodies – HELCOM, ICES, JPI Oceans, and OSPAR. BANOS CSA follows up on the BONUS (Baltic Organisations' Network for Funding Science - EEIG) project.

- **Pan Baltic Scope:** The EU co-funded Pan Baltic Scope supports the development of coherent maritime spatial plans across the Baltic Sea region. HELCOM participates in actions related to advancing the use of the ecosystem approach in maritime spatial planning (MSP) It leads two activities within the project, 1) developing harmonized, cross-border approaches for cumulative impact assessments, and 2) developing methods on how to integrate social and economic analysis in MSP. HELCOM also participates in an activity on data sharing (HELCOM participating in the activity). The project that was launched in 2018 and will run through 2019.

- **Cooperation with other Regional Seas Conventions:** cooperation with other Regional Sea Conventions is an almost constant feature in HELCOM work, resulting in frequent exchanges with its sister organizations including OSPAR Convention (North-East Atlantic), the Black Sea Convention, and the Barcelona Convention (Mediterranean). Furthermore, cooperation under the auspices of UN Environment has notably led to HELCOM contributing to the development of global indicators on the ocean-related SDG14.

17. HELCOM Heads of Delegation (2018)

Denmark	Ms Lone Sjøderberg	Ministry of Environment and Food
Estonia	Mr Rene Reisner	Ministry of the Environment
European Union	Mr Matjaž Malgaj	European Commission
Finland	Ms Maria Laamanen	Ministry of the Environment
Germany	Mr Dr Axel Borchmann	Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
Latvia	Ms Baiba Zasa	Ministry of Environmental Protection and Regional Development
Lithuania	Ms Agnė Kniežaitė-Gofmanė	Ministry of Environment
Poland	Ms Katarzyna Krzywda	Ministry of Maritime Economy and Inland Navigation
Russia	Ms Natalia Tretiakova	Ministry of Natural Resources and Environment of the Russian Federation
Sweden	Mr Jacob Hagberg	Ministry of the Environment and Energy