Baltic Marine Environment
Protection Commission

15 June 2017

Update on the activities of the Baltic Marine Environment Protection Commission – Helsinki Commission (HELCOM)

Contribution to the second part of the report of the Secretary-General on "Oceans and the law of the sea", pursuant to United Nations General Assembly resolution 71/257 of 23 December 2016 (A/RES/71/257).

The work of the Baltic Marine Environment Protection Commission relates to many of the provisions of the resolution. Below we describe a few important themes and major recent milestones in more detail.

This list should not be seen as exhaustive; in addition to the provisions listed under the following paragraphs, HELCOM has dealt with marine litter, marine protected areas, pollution prevention and response, and underwater noise, and maritime spatial planning, among others fields (***ref. 184, 187, 197, 201, 209, 230, 251-253, 255, 266***).

HELCOM's Implementation Outlook of the Ocean-related SDGs in the Baltic Sea - A Roadmap to Agenda 2030 (HELCOM-A2030)

The 2030 Agenda for Sustainable Development was adopted by the UN General Assembly in September 2015. It contains 17 Sustainable Development Goals and 169 targets, many of which are highly relevant to the work of the Regional Seas Conventions and Action Plans. Governments have a primary responsibility for implementing commitments to achieve these targets and goals, while Regional Seas Conventions are the natural home for considering any new regional actions and following up and reviewing the relevant SDGs. Regional Sea Conventions are also best suited to apply the ecosystem approach and to form multi-stakeholder partnerships, thus, enhancing inter-institutional cooperation and coordination.

Contracting Parties met in a high-level session on 28 February 2017 and pointed out the following issues to implement SDGs in the Baltic Sea region:

Contracting Parties will coordinate the regional implementation of ocean-related SDGs in the Baltic Sea using the HELCOM platform. HELCOM can concretely contribute to achieving SDG 14 and targets 6.3., 12.4 and 13.2. Also a number of targets under SDGs 2, 3, 6, 8, 9, 12 and 17 are also relevant to reaching the objectives of the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area.

Strengthened implementation of the HELCOM Baltic Sea Action Plan, based on the ecosystem approach and the commitment to achieve a Baltic Sea in good environmental status by 2021, is needed to fulfil the 2030 Agenda for Sustainable Development in the Baltic Sea. 66 out of 106 regional actions and 11 out of 68 national level actions of the Baltic Sea Action Plan have been fully implemented so far, with successes in setting up a nutrient reduction scheme, curbing airborne

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emission and discharges from shipping, tackling some hazardous substances, piloting ecosystem approach in maritime spatial planning, and covering 11.8% of the Baltic Sea with marine protected areas. All these examples showcase the added value of a regional approach, addressing more than one target of SDG 14 in a coherent way. Policy making based on commonly agreed principles and best available science, paired with a transparent and participatory stakeholder involvement, as well as partnerships for integrated management of human activities, are proven factors underlying these HELCOM achievements.

HELCOM will intensify and focus its efforts towards SDGs addressing issues of regional concern and interest. HELCOM will speed up the implementation of the marine litter regional action plan, continue its battle against eutrophication, especially to cut inputs of phosphorus, and start the elaboration of a regional action plan on underwater noise, to fulfil SDG 14.1. It will ensure close cooperation on any maritime spatial planning in the Baltic Sea area and management plans for all marine protected areas, to fulfil SDG 14.2 and 14.5. HELCOM will continue supporting more sustainable agricultural practices, to contribute to SDG 2.4, and ecosystem-related fishery measures, towards SDG 14.4 and 14.6. HELCOM will strive for more resilient marine ecosystems to be better prepared for human-induced climate change challenges. It will also promote further regional development of social and economic analyses to create tailor-made connecting points between implementation of different SDGs.

Furthermore, the HELCOM holistic state of the Baltic Sea assessment will serve as baseline scenario for SDG implementation. SDGs will also be used as guidance when reviewing and setting up new HELCOM priorities, as needed, until 2030, to fill in gaps, for instance, in relation to climate change adaptation and acidification issues, or on enhanced partnerships with sectorial bodies.

In response to ever growing challenges in the Baltic Sea region, Contracting Parties will strengthen and expand the cross-sectorial, regional and inter-regional partnerships, in the region, Europe and globally. HELCOM will collaborate with other Baltic Sea organisations, such as the Council of the Baltic Sea States and with OSPAR and with other Regional Seas Conventions and Action Plans to draw from each other's experience on SDG issues. HELCOM knowledge will continuously be utilized to support implementation efforts, including within the EU Strategy for the Baltic Sea Region.

HELCOM will continue leading the coordination of regional efforts to deliver on the relevant SDGs, through improved monitoring and stronger implementation of agreed measures towards healthy oceans. Contracting Parties will coordinate the use of HELCOM indicators to measure and compare progress towards reaching ocean-related SDGs. HELCOM's Baltic reports will serve as input to the World Ocean Assessment and the High-level Political Forum. Contracting Parties, in close collaboration with relevant international organisations, may also make use of HELCOM as a platform to coordinate regional, synchronized voluntary reviews on SDG 14 implementation as national input to the High-level Political Forum to reach "the Future We Want".

Please refer to the outcome of the high-level meeting: HELCOM's Implementation Outlook of the Ocean-related SDGs in the Baltic Sea - A Roadmap to Agenda 2030 (HELCOM-A2030).

Contracting Parties drew from the existing HELCOM experience to support the UN Conference "Our oceans, our future: partnering for the implementation of Sustainable Development Goal 14". HELCOM also contributed with voluntary commitments on SDG 14 registered for the Conference.

Finally, Contracting Parties and HELCOM may consider presenting joint commitments at Our Ocean Conference in October 2017 in Malta.

HELCOM published a report "Measuring progress for the same goals in the Baltic Sea", where the SDGs and the Baltic Sea Action Plan are presented side by side.

Ref. Preamble p. 2, 180-181, 321

Nitrogen Oxide (NOx) Emission Control Area (NECA) in the Baltic Sea and the North Sea

International Maritime Organization (IMO) has agreed to limit Nitrogen Oxide (NOx) emissions from ships' exhaust gases in the Baltic Sea as proposed by HELCOM countries. A similar proposal from the North Sea countries was approved at the same 70th meeting of the IMO Marine Environment Protection Committee (MEPC), ending today. After final confirmations at the next MEPC meeting in spring 2017, these two decisions will create a larger Nitrogen Emission Control Area (NECA) for new ships built in or after 2021.

NOx emissions from shipping is a major source of airborne deposition of Nitrogen, aggravating nutrient pollution or eutrophication which is one of the main environmental concerns in the Baltic. The initiative to cut this source of pollution by a Baltic Sea NECA under MARPOL Annex VI emerges from the HELCOM Baltic Sea Action Plan, agreed by the nine coastal countries and the EU ten years ago in 2007.

According to fresh estimates by European Monitoring and Evaluation Programme (EMEP), consisting of deposition modelling based on available emission scenarios (Jonson et al 2015), the annual reduction in total Nitrogen deposition to the Baltic Sea area will be 22,000 tons as a combined effect of the Baltic and North Seas NECAs and compared to a non-NECA scenario. However, a lengthy period of fleet renewal is needed before the regulation will show full effect.

New ships, built 2021 or later, and sailing in the Baltic and the North Sea NECAs, have to meet the Tier III standards of MARPOL Annex VI. This corresponds to approximately 80% reduction in NOx emissions compared to current levels and can be achieved by technologies such as selective catalytic reduction (SCR) or using liquefied natural gas (LNG) as a fuel.

The HELCOM Country Allocated Reduction Target (CART) scheme for reducing nutrient inputs to the sea has divided a total load reduction commitment among all of the coastal countries. Reaching the reduction target for the total loads - 118,000 tonnes of nitrogen and 15,000 tonnes of phosphorus - will result in curbing the eutrophication problem in the Baltic. The estimated effect of the two NECAs within two decades – a reduction of 7,000 tonnes in nitrogen deposition to the surface of the Baltic Sea – is significant in the frame of the HELCOM CART scheme as five out of nine coastal countries have a total annual reduction quota for nitrogen loads which is less than 7,000 tonnes.

More information can be found on the HELCOM website and in a leaflet.

Ref. 182, 211, 214

Baltic Sea special area for sewage discharges from passenger ships under Annex IV or the MARPOL Convention will take effect by latest 2021

The Baltic was the first sea in the world to receive status as a special area for sewage and have this status enforced by the International Maritime Organization (IMO). IMO agreed in April 2016 that

the Baltic Sea special area for sewage discharges from passenger ships under Annex IV or the MARPOL Convention will take effect by latest 2021 for IMO registered passenger vessels. However, in certain cases of direct passages between St. Petersburg area and the North Sea there is a two-year extension to the deadline, until 2023.

The decision means that by 2021 all IMO registered passenger vessels sailing in the Baltic Sea, as the first region in the world, must discharge all sewage at port reception facilities (PRFs), or treat it with an on-board treatment plant certified to meet stringent special area requirements. For new ships built on or later than 2019, these requirements will apply earlier.

The significant outcome concludes the long HELCOM process aiming to limit sewage discharges in the Baltic Sea from passenger vessels, as the discharges have negative impact on the marine environment.

The proposal to designate the Baltic Sea as a special area for sewage within MARPOL Annex IV was developed by the HELCOM Maritime Working Group, which is made up of maritime administrations of the Baltic Sea countries and the EU. This proposal was submitted to IMO MEPC by the coastal countries in 2010, following a decision by the 2007 HELCOM Ministerial Meeting in Cracow, Poland.

Based on the submission, the Baltic Sea was designated by IMO as a special area for sewage in 2011. However, according to the IMO decision this status would only take effect once the coastal countries informed IMO that adequate Port Reception Facilities are available in the region.

By the IMO meeting in April 2016, all Baltic coastal countries had sent confirmation of adequate reception facilities in Baltic ports, as a result of substantial work on port reception facilities for sewage and their use in the Baltic Sea area by national administrations, ports and the passenger ship industry.

Coastal countries, as well as ports and passenger shipping interest organizations and NGOs, continue their collective efforts to further improve availability of adequate sewage port reception facilities across the Baltic Sea area.

In order to document overall progress on sewage PRFs and their use in the region during recent years, an overview document was published by HELCOM in early 2015.

Ref. 210, 215

Status report of pharmaceuticals in the Baltic Sea

A status report on pharmaceuticals in the aquatic equipment in the Baltic Sea region was developed jointly by the Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM) and Policy Area Hazards of the European Union Strategy for the Baltic Sea Region (EUSBSR) and serves as a case study in the framework of UNESCO Emerging Pollutants in Water Series under UNESCO-IHP's International Initiative on Water Quality (IIWQ) Project on 'Emerging Pollutants in Wastewater Reuse in Developing Countries.

The available data indicate that the most frequently measured substances in the Baltic Sea marine environment belong to the therapeutic groups of anti-inflammatory and analgesics, cardiovascular and central nervous system agents. The pharmaceuticals, included in to the report, belong to the therapeutic groups - anti-inflammatory and analgesics; antimicrobials and antidotes; cardiovascular agents; central nervous system agents; chemotherapeutic agents and x-ray contrast media;

dermatological agents; hormones and hormone antagonists and metabolic; gastrointestinal agents. 91% of measured pharmaceuticals were detected in MWWTP, 52% in fresh waters and 44% in marine environment.

The main pathway of pharmaceuticals into the freshwater and marine environment, according to the collected data, is via the discharges of MWWTPs effluents. Only nine out of 118 assessed pharmaceuticals were removed from wastewater during the treatment processes with an efficiency over 95% and nearly half of the compounds were removed only partially with an efficiency of less than 50%. 16 compounds were found in higher concentrations in effluents from MWWTP that in influents.

The report includes data on 167 pharmaceutical substances measured in the marine environment and 156 pharmaceutical substances and 2 metabolites sampled in surface freshwater systems and in influents, effluents and sludge from municipal wastewater treatment plants (MWWTPs). The data were reported by Denmark, Estonia, Finland, Germany, Poland, Russia (St. Petersburg) and Sweden. The data presented in the report cover the period 2003-2014 and include 47,600 sampling sites on pharmaceuticals in WWTP and fresh waters and 4,600 individual sampling sites in the coastal, open sea and transitional areas of the Baltic Sea marine environment.

Based on the findings of the Status report HELCOM decided to establish an expert group (CG Pharma) to provide a scientific background for the regional environmental policy regarding pharmaceuticals in the environment and serve as a platform for regional dialog for various environmental issues related to pharmaceuticals.

HELCOM group will cooperate with the BSR pharmaceuticals (PIE) platform, launched by PA Hazards of EU SBSR, to contribute to the identification, development and implementation of (transnational) projects and activities within the area of pharmaceuticals in the environment and support the development of regional policy in the area of pharmaceuticals in the environment.

Ref. 182, 205, 210, 215, 216, 218, 236, 270

31 HELCOM core indicators with quantitative threshold values adopted

HELCOM core indicators form the basis for HELCOM environmental assessments as defined in the HELCOM Monitoring and Assessment Strategy,which was adopted by the 2013 Copenhagen HELCOM Ministerial Meeting. The strategy outlines that the core indicators are to be regularly updated by the HELCOM Contracting Parties as core indicator reports to allow for periodical thematic- and holistic assessments.

The goal of the HELCOM Baltic Sea Action Plan (BSAP) is to achieve good environmental status by 2021 and the status is to be assessed for a set of ecological objectives. A core indicator measures the progress towards reaching a BSAP objective. The HELCOM strategic goals and objectives are to a large extent comparable to the descriptors and criteria of the EU Marine Strategy Framework Directive (MSFD), which stipulates that good environmental status is to be achieved by 2020. For those Contracting Parties of HELCOM that are also EU Member States, the core indicators can also be used to assess criteria under the EU Marine Strategy Framework Directive (MSFD).

In essence, the role of a core indicator is to regularly synthesise join environmental monitoring data to evaluate the progress made towards reaching the overall goal of the Baltic Sea achieving a good environmental status (GES).

HELCOM core indicators are commonly agreed indicators among the Contracting Parties of the Helsinki Convention with commonly adopted quantitative threshold values or environmental targets.

State core indicators evaluate the status against a quantitative threshold value. Pressure core indicators measure the progress towards an environmental target. The threshold value or environmental target are adopted by all Contracting Parties of HELCOM, and are described in detail in the core indicator report. The core indicator report also describes the indicator assessment protocol and the general indicator concept. State core indicators are indirectly linked to anthropogenic pressures, and the link is described either qualitatively or quantitatively as appropriate.

A core indicator measures the progress towards reaching a Baltic Sea Action Plan (BSAP) objective. 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).

By June 2017 there are 31 approved core indicators with quantitative threshold values. HELCOM works to further complete the set of available core indicators by developing additional indicators that have been identified as being needed for the environmental assessments.

Ref. 180, 183, 187, 227-229, 236, 270, 284, 290, 301,

First results of the State of the Baltic Sea assessment to be published in June 2017

The HELCOM HOLAS II project has the task to produce the second HELCOM Holistic Assessment of the Ecosystem Health of the Baltic Sea. The first version of the assessment report, with the short name 'State of the Baltic Sea', is planned to be published in June 2017. Thereafter there will be consultation rounds. The status assessments included in the first version of the report are primarily based on data from 2011-2015.

In 2018 the report will be updated to include monitoring data from the year 2016. In the process to update the report comments received through the consultation process will be considered and decisions on threshold values and new core indicators during 2017 will tentatively be included in the update.

The content of the first version of the 'State of the Baltic Sea' report is based on the results of indicator evaluations and assessments that have been carried out under HOLAS II and associated projects co-financed by the EU (BalticBOOST, TAPAS, SPICE). The 'State of the Baltic Sea' report provides a summary of results, and more in-depth information will be provided in associated supplementary reports, core indicator reports, and fact sheets. The first version of the report will be made available on the HELCOM website and downloadable as a pdf-document. The 2018 update of the report will also be available in print.

The approval process of the report is still ongoing. The HOLAS II project website provides more information.

Ref. 227, 228, 230, 255, 270, 284, 290, 301, 314