



Baltic Marine Environment Protection Commission

Fourth Meeting of the HELCOM Correspondence Group on
Pharmaceuticals (HELCOM CG PHARMA)

CG PHARMA 4-2018

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Background:

At their previous meetings the HELCOM State and Conservation and HELCOM PRESSURE working groups (WGs) carried out an evaluation of their function, role and needs (see relevant outcomes and annexes: [PRESSURE 8-2018](#) and [State and Conservation 8-2018](#)).

The information provided below is simply a brief summary of points raised with potential relevance for hazardous substances work. This document is therefore an information collective to initiate discussion and proposals on ways forward that can be developed within the HELCOM structure. These suggestions could for example feed into the ongoing planning process on future work on HELCOM indicators (overseen by GEAR, Outcomes of HELCOM HOD 54, [paragraph 4.25](#) and [document 4-5](#)), or be considered for discussion at the upcoming State and Conservation and PRESSURE meetings.

The discussion originates from both recent experiences in the production of the State of The Baltic Sea report, and the fact that the assessment of the Baltic Sea ecosystem health, with regard to contamination by hazardous substances, is framed by HELCOM Recommendation 31/E1 (2007) - identifying 11 priority contaminants for the Baltic Sea region. Numerous measures have been recommended and implemented in the region to mitigate or prevent contamination of the marine environment by these priority pollutants, with complete bans of their use implemented in certain cases. While certain signs of improvement are found some of the contaminants are observed to persist in the marine environment, and may be compartmentalised within the system – for example associated with sediment deposits despite considerable decreases in perceived inputs (e.g. TBT). This subject was also discussed in the HOLAS II HZ WS-1 meeting and was proposed to be followed up on at a future meeting of HELCOM EN-Hazardous Substances ([Outcomes paragraph 15](#)). This delayed response to implemented measures, and the potential for poor status to persist within the marine environment, hampers a clear understanding of the effectiveness of measures and may result in inappropriate or incorrect identification of major sources.

Emerging pollutants (HELCOM MD2018) are a growing global environmental problem caused by the rapid development of either production or consumption of various chemicals. These pollutants, originating mainly from land-based sources, and often either novel compounds or replacements for restricted substances, also represent important considerations for future HELCOM work. While many may currently be at low concentrations, and current methodological approaches can result in problems for their detection in the marine environment, the impact of these on the environment and their potential to accumulate are important monitoring considerations. Such issues were clearly illustrated by the Status report on pharmaceuticals recently published by HELCOM and UNESCO.

One consideration related to future work on HELCOM indicators that has been expressed is the incorporation of data on loads and sources where possible into the existing (and future) indicators. A solution might be

found by considering a 'life-cycle' approach for these hazardous, or potentially hazardous, substances. By combining information on the production or use of chemicals in industry or their consumption (e.g. sales), the identification of pollutants at source (e.g. the entry point such as Waste Water Treatment Plants), their concentrations along pathways (e.g. rivers) and their concentrations in the marine environment, a holistic overview of each substance can be developed. Under the guidance of HELCOM CG PHARMA an approach to catalogue sales, define the loads in WWTPs and pathways (rivers), as well as the status in the marine environment (sediment, water and biota) has been taken for the pharmaceutical indicator Diclofenac. While this indicator is currently tested and lacks defined threshold values, complete monitoring, and sufficient data to support a full status assessment, there are interesting trends apparent.

Recent initiatives and data calls via the PRESSURE and State and Conservation WGs have gathered load data on a number of substances and substance groups (Micropollutants in WWTP effluents, POPs in rivers, and other). These are currently being reviewed by experts through partnership with existing projects or project platforms. Furthermore, an initiative to bring information on sources, loads and assessments into the HELCOM indicators would be in keeping with both the BSAP and MSFD. For example the Commission Decision (EU) 2017/848 related to Descriptor 8 also states that 'information on the pathways (atmospheric, land- or sea-based) for contaminants entering the marine environment shall be collected, where feasible.'

During the review of their WGs, both PRESSURE and State and Conservation highlighted the need for greater cooperation and clarity between each other. Particular subjects of potential interest when exploring a way forward related to hazardous substances within HELCOM included:

- Lack of link between issues related to the state of the marine environment, sources and loads.
- Improved alignment with policy initiatives (e.g. the Baltic Sea Action Plan (BSAP), pressure descriptors of the EU MSFD (MSFD)) would recreate the link between loads and status.
- Evaluation of effectiveness of implemented measures and enacting new joint action to mitigate contamination of the marine environment.
- Identification of emerging pollutants and prevention their harmful effect to the ecosystem.
- Possibility of regular and joint thematic workshops to improve common focus and communication between the two WGs. Clear and focussed discussion on specific topics.
- Increase connectivity between the WGs by merging efforts in some underlying expert networks to ensure status and loads are considered.
- Common discussion between the WGs on pressures and state, and the linkages between these.
- Reporting by expert groups to both PRESSURE and State and Conservation WGs.

Action requested:

The meeting is invited to:

- reflect on the suggested approach to the HELCOM HS indicators;
- suggest specific examples or approaches that may be of value when planning future work.