



Document title	Progress report on the development of risk assessment framework for management of internal nutrient reserves
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Background

Large amounts of nutrients have accumulated in the Baltic Sea during the past decades due to anthropogenic activities, resulting in an enhanced internal flux of nutrients between sediments and sea water, thereby exacerbating eutrophication. In order to prevent potential adverse effects of implementation of measures to manage internal nutrient reserves in the sea and also to facilitate scientific and technological development in this sphere the HELCOM Ministerial Declaration 2018 committed to:

- develop a risk assessment framework in HELCOM to meet the necessary environmental requirements for measures planned for the open sea and any other measures having potentially significant transboundary effects;
- elaborate in line with the Helsinki Convention commonly agreed regional principles as guidance for internal nutrient reserves management.

Pursuant to the commitment of the Ministerial Declaration PRESSURE 9-2018 proposed to establish the Group to draft the regional principles and risk assessment framework for management of internal nutrient reserves (*ad hoc* Group MINUTS). The mandate of the MINUTS Group extends up to the end of 2020 when final draft of the framework is to be submitted for consideration of HELCOM Heads of Delegations.

The group proposed that the framework would consist of a guideline and recommendation including a list of terms and definitions. The core of the framework is the guideline classifying measures to manage nutrient reserves, setting regional and national risk assessment procedures, providing guidance for national permitting authorities, etc. The HELCOM recommendation identifies the basic principles of risk assessment, provides key definitions, recommends the use of the guideline and establishes required policy links as well as reporting requirements.

This document contains a draft Recommendation on application of sea-based measures to manage internal nutrient reserves. The draft was twice considered by the PRESSURE WG, which requested the MINUTS expert group to submit this progress report to HOD 58-2020. The document still contains two major issues which require clarification and guidance, which is sought by PRESSURE and the MINUTS group from the Heads of HELCOM Delegations. These two key issues are indicated in the text of the document by footnotes and the textual proposals are given in square brackets.

1. Application of precautionary principle.

The first issue is the application of the precautionary principle to the measures to manage internal nutrient reserves due to its ambiguous interpretation.

On the one hand, the precautionary principle should not be interpreted as preventing further work on internal nutrient reserves management as the measures are aimed at improving the state of the sea.

On the other hand, the Convention says that the precautionary principle is to be applied to take preventive measures when there is reason to assume that measures might directly or indirectly harm marine ecosystem or interfere with other legitimate uses of the sea even when there is no conclusive evidence of a causal relationship between inputs and their alleged effects.

2. The role of HELCOM in relation to application of sea-based measures.

The second issue regards the role of HELCOM related to sea-based measures. Participants were of the view that HELCOM Contracting Parties should bring information on ongoing national permitting procedures on sea-based measures to HELCOM. Opinions differ, however, whether HELCOM should express a joint opinion concerning the quality of the proposal and the need for complementary information, or whether Contracting Parties should use the Espoo processes for commenting on Environmental Impact Assessments.

A further proposal was that HELCOM would conclude on whether the measure should be permitted, and this view should be considered in national permitting procedures. The meeting noted, however, that for HELCOM to act jointly, consensus is necessary, and this is unlikely to be achieved where one Contracting Party proposes a project which is not accepted by others. This would result in HELCOM not being able to express a joint opinion and therefore the recommendation would create a process which would never be used.

Thus, the question whether HELCOM would give a conclusion on permitting of sea-based measures or act as a platform for information-sharing remains unsolved.

MINUTS expert group proposed two alternatives for consideration by HODs:

RECOMMENDS that national permitting procedures seek the views of HELCOM Contracting Parties, as to whether the sea-based measure in the open sea and any other measures with potentially significant transboundary effects should be conducted and whether further information or modifications are necessary to minimize the risk for the Baltic Sea environment. The conclusion HELCOM takes is based on the information and in accordance with the procedure described in the Guidelines part b).

RECOMMENDS that in the national permitting procedures, Contracting Parties consider the conclusion of HELCOM, as to whether the sea-based measure in the open sea and any other measures with potentially significant transboundary effects should be conducted and whether further information or modifications are necessary to minimize the risk for the Baltic Sea environment. The conclusion HELCOM takes is based on the information and in accordance with the procedure described in the Guidelines part b).

Drafting of the Guideline still continuous. The document will consist of two major parts. Part a) provide guidance on consideration of small-scale measures applied in coastal waters and inland fresh waters without foreseen transboundary effect. The main aim of the part a) is to facilitate exchange of information and build regional knowledge base on techniques and effects of measures to manage internal nutrient reserves. Part b) is intended to describe a procedure for consideration in HELCOM of large-scale sea-based measures with potential transboundary effect and accounting of its results in the national permitting processes.

The document has been framed by MINUTS and further development of its parts will be led by Finland and Germany with contribution by Sweden and John Nurminen Foundation intending to consider a compiled draft of the Guideline by MINUTS group in September 2020.

Action requested

The Meeting is invited to

- consider the progress report on the development of the risk assessment framework for sea-based measures and reflect on the achieved progress;
- discuss two open issues described on the cover page and marked in the draft Recommendation, decide on the HELCOM role in relation to application of sea-based measures and provide guidance on application of the precautionary principle in the risk assessment framework.

DRAFT HELCOM RECOMMENDATION XX/X

Adopted XX.XX.20XX,
having regard to Article 3, Paragraph 1
of the Helsinki Convention

ON APPLICATION OF SEA-BASED MEASURES TO MANAGE INTERNAL NUTRIENT RESERVES**THE COMMISSION,**

BEING CONCERNED by the sustained highly eutrophic state of the Baltic Sea despite efforts of the Contracting Parties to the Helsinki Convention to reduce the nutrient load to the Baltic Sea from external sources and despite jointly achieved progress towards maximum allowable inputs of nutrients identified by the Baltic Sea Action Plan;

BEING ALSO AWARE that reduction of the nutrient input from external, predominantly, land-based sources of highest priority as the maximum allowable input of nutrients has not yet been achieved for all Baltic Sea sub-basins and that national ceilings for net nutrient inputs have not yet been reached by all countries and other contributors. ;

RECOGNIZING with concern that large amounts of nutrients have accumulated in the Baltic Sea during the past decades due to anthropogenic activities causing anoxia and preventing the sediments from acting as an effective nutrient sink which results in an enhanced internal flux of nutrients between sediments and sea water, exacerbating eutrophication and delaying recovery;

NOTING technological progress in the development of measures to manage nutrient reserves in the Baltic Sea.;

BUT BEING CONCERNED about the scarcity of scientific evidence regarding the sustainability of the effects of such measures and their potential harmful consequences for the marine environment, including potential transboundary effects in case of large-scale application of such measures;

RECALLING Paragraphs 1 and 2 of Article 3 and 1b of the Article 20 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992, (Helsinki Convention), obliging Contracting Parties to take, individually or jointly, all appropriate legislative, administrative or other relevant measures to prevent and eliminate pollution in order to promote the ecological restoration of the Baltic Sea Area and the preservation of its ecological balance including applying the precautionary principle as well as making related recommendations;

RECALLING ALSO the United Nations Convention on the Law of the Sea and its obligations for States to protect and preserve the marine environment (Art 192) including to take measures to prevent, reduce and control pollution (Art 194) and not to transfer damage or hazards or transform one type of pollution into another (Art 195);

RECALLING FURTHER Resolution LP.4(8) on the Amendment to the London Protocol to Regulate the Placement of Matter for Ocean Fertilization and Other Marine Geoengineering Activities that provides an assessment framework for scientific research involving ocean fertilization and a general assessment framework for marine geoengineering activities;

RECALLING ALSO the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) obliging the signatories to the Convention to assess the environmental impact of certain activities at an early stage of planning and notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries and recalling similar obligations under the EU Environmental Impact Assessment Directive 2011/92/EC.

HAVING REGARD that the HELCOM Brussels Ministerial Declaration 2018 foresees a stepwise approach to the management of internal nutrient reserves, encouraging Contracting Parties to the Helsinki Convention as a first step to improve the knowledge base regarding the nature and dynamics of internal nutrient reserves

and, as a second step, to undertake research on the potential of measures to manage internal nutrient reserves as well as to develop and apply a risk assessment framework in HELCOM to meet the necessary environmental requirements and elaborate commonly agreed regional principles as guidance for internal nutrient reserves management;

REAFFIRMING the statement of the HELCOM Brussels Ministerial Declaration 2018 that the risks to ecosystem and human health stemming from measures to manage internal nutrient reserves, as well as the long-term sustainability of their effects, need to be considered and thoroughly evaluated;

TAKING INTO ACCOUNT the requirements of the EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora 92/43/EEC, the EU Water Framework Directive 2000/60/EG and the EU Marine Strategy Framework Directive 2008/56/EC, and related national legal acts of the EU member states, Federal Laws on Environmental Impact Assessment and on Internal Sea Waters, Territorial Sea and Contiguous Zone of the Russian Federation which aim to achieve or maintain good ecological status/good environmental status and prevent environmental degradation;

RECALLING the European Union Court of Justice ruling that Member States may not authorise projects that lead to deterioration of the status of a water body, even on a temporary basis, shall be prohibited unless a derogation is granted (the Weser case).

NOTING that in the context of this Recommendation measures to manage internal nutrient reserves are hereafter called sea-based measures. Such sea-based measures include but are not limited to the following: chemical measures, such as enabling the sediment to sequester nutrients by oxygenation (for example bottom water oxygenation); physical measures such as removal of nutrient rich sediments (for example substance addition or sediment removal); biological measures such as the removal of organisms (for example extractive aquaculture, microbial manipulation, removal of fish); and various combinations of these measures.

NOTING that the provisions of this Recommendation shall not prejudice stricter provisions concerning the application of sea-based measures contained in other, existing or future, national, regional or international instruments;

[RECOGNIZING with concern that the precautionary principle of the Helsinki Convention in the case of sea-based measures both requires Contracting Parties to proceed with measures despite incomplete knowledge, but also to act with caution when intervening in the marine environment.]¹

EMPHASIZING that this Recommendation is intended to prevent potential adverse effects of sea-based measures on the Baltic Sea marine environment, to mitigate their risks and to ensure the sustainability of desired effects through thorough planning and comprehensive and transparent national permitting procedures;

NOTING that this Recommendation is intended to facilitate the development of the knowledge base related to sea-based measures in order to mitigate eutrophication of the Baltic Sea;

RECOMMENDS to the Governments of the Contracting Parties to the Helsinki Convention to assess and control sea-based measures in the Baltic Sea including private, commercial and research projects through national permitting procedures;

FURTHER RECOMMENDS that the Contracting Parties apply the HELCOM Guidelines for the management of internal nutrient reserves (hereafter called HELCOM Guidelines) in the Baltic Sea region in permitting procedures in order to ensure that:

- they serve to achieve a Baltic Sea unaffected by eutrophication and that positive effects of the measures will be sustained even after the measures are completed;
- they do not cause significant irreversible adverse effect on the environment and
- environmental risks are minimized.

¹ application of precautionary principle requires further clarification

RECOMMENDS that, concerning **sea-based measures which are conducted in coastal waters and considered unlikely to affect the waters of more than one HELCOM Contracting Party**, the Contracting Parties assess and control these in accordance with the requirements of the HELCOM Guidelines part a) in permitting procedures.

ALSO RECOMMENDS that, concerning **sea-based measures which are conducted in coastal waters and could potentially significantly affect the waters of more than one HELCOM Contracting Party**, the Contracting Parties assess and control these in accordance with the requirements of the HELCOM Guidelines part b) of the HELCOM Guidelines in national permitting procedures.

FURTHER RECOMMENDS that, concerning **sea-based measures which are conducted in the open sea and which potentially significantly affect the waters of more than one HELCOM Contracting Party**, the Contracting Parties assess and control these in accordance with the requirements of the HELCOM Guidelines part b) in national permitting procedures.

[RECOMMENDS that in the national permitting procedures the views of HELCOM Contracting Parties are considered regarding to whether the sea-based measure in the open sea and any other measures with potentially significant transboundary effects should be conducted and whether further information or modifications are necessary to minimize the risk for the Baltic Sea environment. The conclusion HELCOM takes is based on the information and in accordance with the procedure described in the Guidelines part b).]²

RECOMMENDS to the Governments of the Contracting Parties to the Helsinki Convention to apply the following regional principles when planning and applying sea-based measures:

- sea-based measures should contribute to the achievement of a Baltic Sea unaffected by eutrophication;
- sea-based measures do not substitute measures to reduce nutrient inputs to the Baltic Sea from land, air or maritime sources and cannot therefore be accounted for as national nutrient input reduction measures in the context of the nutrient input ceilings agreed in the Baltic Sea Action Plan;
- sea-based measures should not lead to deterioration of the status of the marine environment;
- the precautionary principle³ should be applied when assessing and controlling sea-based measures;
- measures should be based on the best available scientific knowledge;
- the environmental effects of sea-based measures should be monitored for the duration they are expected to effect on the marine environment.;

RECOMMENDS ALSO to apply the principles and the HELCOM Guideline when international and national financial institutions, private investors, research organizations and commercial organizations plan any activities related to management of internal nutrient reserves;

RECOMMENDS ALSO to the Contracting Parties to facilitate development of the regional knowledge base through:

- research to develop the scientific knowledge base on nutrient fluxes in the marine environment, factors affecting their character and methods to manage internal nutrient reserves, including harm of these methods to the environment on short- and long-term scale, along with ensuring no potential adverse transboundary effects;
- exchange of information on recent research and results of testing of sea-based measures in the Baltic Sea region;
- enhanced international cooperation with the aim to transfer and develop the best available techniques and practices regarding sea-based measures to mitigate eutrophication;

² the role of HELCOM requires further clarification

³ see footnote 1.

- engaging in dialogue and enhanced cooperation with business and industry, sea users, local communities and other relevant civil society groups as well as national stakeholders focusing on application of sea-based measures to mitigate eutrophication;

RECOMMENDS to organize reporting on this Recommendation in accordance with the HELCOM Guidelines. The reporting should demonstrate compliance with the principles.

RECOMMENDS to review this recommendation within 6 years after entry into force of this Recommendation or when new relevant scientific knowledge is available. affecting implementation of this Recommendation emerges.