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The Rev.4 version of this document includes the following changes:

Comments by Finland on the overarching preamble and introduction as well as the introductions to the horizontal actions segment have been added.

The Rev.2 version of the Excel attachment includes the following changes:

Comments by Finland on the horizontal actions segment actions have been added.

The Rev.3 version of this document includes the following changes:

Comments by Denmark on the overarching preamble and introduction as well as the introductions to the hazardous substances and litter, sea-based activities and horizontal actions segments have been added.

The Rev.2 version of this document includes the following change:

HELCOM 42-2021 took note of the view by Denmark that it is important to address the co-existence of offshore energy and biodiversity in the BSAP and refer to the EU Offshore Sustainable Energy Strategy in in e.g. the sea-based activities segment under "Connection to other treaties" and also took that Denmark will submit a proposal on the topic. The proposal by Denmark is included in the revised document in the introduction to the Sea-based activities segment.

The Rev.1 version of this document includes the following changes:

- The comments by Sweden regarding proposed changes by Finland on the climate change section introduction have been added to the horizontal actions segment.
- The biodiversity, eutrophication, hazardous substances and litter, and sea-based segments have been added following the consideration by the Segment Teams (DG BSAP BIO 3-2021, DG BSAP BIO 4-2021, DG BSAP EUTRO 4-2021, DG BSAP HZ 3-2021 and DG BSAP SEA 3-2021).
    - The Secretariat has modified the introductions based on the guidance by HELCOM 42-2021 and comments by the Segment Teams.
    - The comments remaining in the introductions for the biodiversity and sea-based activities segments represent input which could either not be solved by the Segment Team or were submitted after the relevant Segment Team meeting.
    - The annex to the eutrophication segment has been removed and a proposal on linking to the information previously placed in the annex has been added.

The following comments received from Sweden are considered relevant for all segments and should thus be discussed jointly in order to define a common approach across all segment introductions;

Links to climate change in the text box

- It is unclear what the links indicate, and this should maybe be spelled out. There should be a link made to the actions taken in BSAP (climate, resilience…). It could be considered to just linking to the climate change fact sheets. Especially for biodiversity, the list is very long. The links (especially direct/indirect) need to be discussed again since the terms are very technical. Selecting the top 5 CC factors affecting biodiversity, or selecting a few key messages about the main effects and links to measures might work better? Also, we need to have an explanation to why CC links is singled out in the "box" presentation; we could (theoretically) do the same for all pressures.

Pressures in the text box

- Consider the added value of including pressures. The most relevant pressures will be shown in the objectives etc. and are already shown in the segment goals. But if it is only shown in graphics then less of an issue.

Inclusion of numbers referring to situation at the adoption of the BSAP

- Avoid numbers as these will quickly be outdated.

Placement of section on connection to other treaties

The section on connection to other treaties should be moved to a more logical place in the structure.

Management objectives

- Management objectives are a new component of the BSAP, and their role needs to be defined. The achievement of the management objectives will need to be followed up. The options for follow up could include 1) any quantitative management targets such as MAI/NIC or MPA targets, or 2) percentage of actions implemented/partly implemented.

The Rev.1 version of the Excel attachment includes the following changes:

- The actions under biodiversity, eutrophication, hazardous substances and litter, and sea-based segments have been added to the Excel in separate sheets following the consideration by the Segment Teams.
    - The formulation of the actions coloured light green have been agreed by the Segment Teams and are presented for review by DG BSAP 6-2021. In some cases, some Contracting Parties were invited to prior to, or by, DG BSAP 6-2021 confirm their support for the formulation. These cases are marked in the "comments" column in the Excel file.
    - The actions coloured dark green have been in principle agreed for inclusion in the updated BSAP by HELCOM 42-2021 and will not be discussed by DG BSAP 6-2021.
    - The actions coloured yellow are still open. They are presented for information and the drafting of these actions still continues in the Segment Teams.
    - The actions coloured blue are proposed to be integrated into the relevant segment introduction and the proposal for this is included already in the relevant introductions.
- Comments by Sweden on the climate change related actions have been included in the "horizontal actions" sheet.
- DG BSAP BIO proposed to move action BN13 to the horizontal actions segment under the theme "knowledge exchange and awareness raising". This action has been moved to the "horizontal

actions" sheet and is presented for consideration by DG BSAP 6-2021 in addition to other actions in the horizontal actions segment coloured yellow or white.

Background

This version of the document includes the following elements of the draft updated BSAP: overarching preamble, overall introduction and horizontal actions segment. Comments and proposed changes by Estonia and Sweden sent after HELCOM 42-2021 are included in the document in track changes and comment boxes. Further comments can be submitted to the Secretariat (susanna.kaasinen@helcom.fi) **by 15 April 2021**.

Changes made by the Secretariat after HELCOM 42-2021 or issues pending from HELCOM 42-2021 are marked in yellow highlight.

To ensure that the latest version of the text is available for the Meeting, the segments on biodiversity, eutrophication, hazardous substances and litter, and sea-based activities will be included after the relevant Segment Team meetings have been held and the changes requested by these meetings have been incorporated. Revised versions of the document will be submitted to include these segments.

Overarching preamble and introduction

HELCOM 42-2021 considered the proposed amendments to the overarching preamble as follows:

- Para. 6: The meeting agreed to include "or unknown" as suggested in document 4-3.
- Para. 9: The meeting acknowledged that the paragraph needs further specification, i.e., context information needs to be included, and the formulation requires finetuning in DG BSAP 6-2021.
- Para. 11bis: The meeting took note of the proposal by Finland and Germany to delete the paragraph from the preamble and instead include it as part of the background information for the update of the BSAP. However, consensus could not be reached and therefore the meeting deferred the paragraph for further consideration in DG BSAP 6-2021.
- Para. 11ter: The meeting took note that while the general content of the paragraph is widely supported, the use of the term NDCs is not supported by all Contracting Parties and thus the formulation needs to be further considered in DG BSAP 6-2021. The meeting took note of the clarification by Sweden that the inclusion of adaptation measures in NDCs is a valid approach for countries. The HELCOM commitment under para. 11ter would in practice translate into maintaining and making available every 5-years an up-to-date list of adaptation measures for Contracting Parties to use.
- Para. 17: The meeting took note of the comment by Denmark that there is limited added value perceived from including a reference to the insurance sector in the text of the paragraph, and also noted the subsequent statement by Sweden that insurance has a strong impact on the development of green technologies. The meeting agreed that this needs to be further considered in DG BSAP 6-2021.

HELCOM 42-2021 took note of the preliminary comments on the proposals for amendments to the preamble presented by Finland, as contained in document 4-5 from HELCOM 42-2021, and agreed to come back to these proposals in more detail at DG BSAP 6-2021. These proposals have been included in the version contained in this document, highlighted in yellow.

HELCOM 42-2021 also agreed on the mode of adoption and referencing for the associated action documents and supporting documents and invited the Secretariat to submit a proposal on referencing the associated actions documents and supporting documents in the overarching preamble for DG BSAP 6-2021. The changes to the preamble still under discussion and the proposal by the Secretariat on the inclusion of the adoption of the associated actions documents and supporting documents are highlighted in yellow and placed in brackets.

The overall introduction has been updated by the information on the supporting document that contains additional information on the actions.

HELCOM 42-2021 invited the Contracting Parties to submit comments and concrete input to the preamble to the Secretariat (susanna.kaasinen@helcom.fi) **by 15 April 2021 at the latest.** A version in Word format is included to facilitate the commenting.

Segment introductions

Biodiversity, eutrophication, hazardous substances and litter, sea-based activities

HELCOM 42-2021 considered the segment introductions and provided the following guidance for the further drafting:

- All acronyms should be spelled out as text or alternatively there should be a glossary of terms included in the BSAP;
- The sub-heading "Reaching desired state: strategic approaches" should be changed to "Reaching desired state: management objectives" in all segments;
- It should be analyzed how the proposed actions fit under the management objectives and the actions could be presented in association with the relevant management objectives, if found suitable based on the analysis;
- For the segment on hazardous substances and litter, the strategic approaches now included as actions although could better fit the introductory part;
- The introduction to the eutrophication segment should still be shortened and the language used should be less technical.

At the invitation of HELCOM 42-2021, the Secretariat has submitted the guidance to the next Segment Team meetings. Revised versions of the introductions based on the guidance and comments from the Segment Teams will be submitted to DG BSAP 6-2021 following the relevant Segment Team meeting. After the Segment Team meetings at the end of March and in early April, the drafting of the segment introductions will continue only in DG BSAP to ensure coherence of the texts across segments.

The analysis of the actions across the management objectives will be submitted as a separate document to DG BSAP 6-2021.

HELCOM 42-2021 also considered proposals by Russia and Germany to change the objectives under the sea-based activities segment. The meeting tasked DG BSAP SEA 3-2021 and DG BSAP 6-2021 to continue the discussion and to propose wording for the three objectives under the sea-based segment.

Horizontal actions

The general introduction as well as the topic-specific introductions for the horizontal actions segment in this document have been revised based on the following decisions by HELCOM 42-2021:

- to include hot spots as well as knowledge exchange and awareness raising as additional topics in the horizontal action segment;

- to change in the hot spots introduction that the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP) was adopted but not established, not include sources of underwater noise sites in the hot spot list;

- to mention the polluter pays principle in the financing section with reference to article 3.4 of the Helsinki Convention;

- to delete the footnotes in the financing section when submitting the next version to DG BSAP 6-2021;

- to change the introductory text for the monitoring section based on the proposal by Germany as follows: "For those CPs who are also EU member states the joint monitoring also supports ~~contributes~~ to fulfilling the requirements of the EU MSFD or WFD, HD and BD.".

HELCOM 42-2021 took note of the newly added introduction to the climate change section, welcomed the proposals for changes by Finland and agreed to continue discussing the climate change section including the Finnish proposals at DG BSAP 6-2021. These amendments are included in the version contained in this document, highlighted in yellow. The meeting also took note that Russia does not support mentioning shipping as an example in the introduction since mitigating greenhouse gas emissions concerns many other sectors as well.

HELCOM 42-2021 took note of the new text proposal for the section on financing (included in this document in yellow highlight) and agreed to continue the discussion on the proposed changes to the financing section at DG BSAP 6-2021.

Comments and concrete input to the introductions can be submitted to the Secretariat (susanna.kaasinen@helcom.fi) **by 15 April 2021 at the latest.** A version in Word format is included to facilitate the commenting.

Actions

HELCOM 42-2021 considered the actions for which the DG BSAP and the Segment Teams found the proposed wording satisfactory (coloured green) and, with some clarifications and amendments, agreed in principle on the inclusion of these actions in the updated BSAP. The drafting of the remaining actions is continuing in the Segment Teams (actions in the biodiversity, eutrophication, hazardous substances and litter, sea-based activities segments) and the outcomes will be submitted to DG BSAP 6-2021 when available.

The actions to be included in the horizontal actions segment are to be considered solely in DG BSAP and are attached to this document and in a separate Excel attachment for consideration. The actions that have been in principle agreed by HELCOM 42-2021 for inclusion to the updated BSAP are coloured in green. The actions to be considered by the Meeting are coloured in yellow (actions that have already been discussed) or white (actions have not yet been considered). Comments including concrete proposals for rephrasing the actions in the horizontal actions segment coloured yellow or white can be submitted to the Secretariat (susanna.kaasinen@helcom.fi) **by 15 April 2021 at the latest.** Please utilize the attached Excel document for commenting.

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DG BSAP 5-2021 agreed that the cross-referencing of actions in different segments of the BSAP will be handled by coding the actions and including the relevant codes for reference, both in the lists of actions in the BSAP itself and as part of the supplementary information. DG BSAP 5-2021 invited the Secretariat to make the first proposal on the cross-references to be reviewed by DG BSAP. A separate document on cross-referencing the actions will be submitted by the Secretariat.

Outcome of the HELCOM Stakeholder Conference 2021

The HELCOM Stakeholder Conference 2021 - "Practically Implementing Ecosystem-Based Management", was held on 11 March 2021 as an online workshop, in collaboration with Coalition Clean Baltic (CCB) and the Swedish Agency for Marine and Water Management (SwAM). HELCOM 42-2021 noted that the draft BSAP should also be examined by DG BSAP in light of the outcome of HSC2021, to see if it sufficiently embraces the Ecosystem Approach and EBM considerations.

Action requested

The Meeting is invited to:

- consider the proposed changes to the overarching preamble, including referencing to the associated action documents and supporting documents, take note of the comments received and provide guidance on how to address them as well as agree on a process to finalize the overarching preamble and introduction for submission to HOD 60-2021 for approval;

- consider the segment introductions, take note of the comments received and provide guidance on how to address them as well as agree on, the proposed wording for the three objectives under the sea-based activities segment and agree on a process for finalizing the segment introductions for submission to HOD 60-2021 for approval;

- consider the proposed changes to the introduction to the horizontal actions segment, take note of the comments received and provide guidance on how to address them as well as agree on a process for finalizing the segment introduction for submission to HOD 60-2021 for approval;

- acknowledge or, where this is deemed necessary, further review the actions in the Biodiversity, Eutrophication, Hazardous substances and litter, and Sea-based activities segments for which the formulation was agreed by the Segment Teams and which were yet not provisionally agreed by HELCOM 42-2021 (coloured green in the Excel attachment to be submitted at a later stage), agree on the proposed process for finalizing the formulation of the actions under these segments for submission to HOD 60-2021 for approval, noting the status of the drafting in the Segment Teams;

- agree on a process for finalizing the formulation of the actions under the horizontal actions segment for submission to HOD 60-2021 for approval;

- discuss, in light of the outcome of HELCOM Stakeholder Conference 2021, if the draft BSAP sufficiently encompasses the Ecosystem Approach and EBM considerations and if considered relevant provide concrete suggestions for how to strengthen the link between EA/EBM and the updated BSAP.

Preamble

1. We, the Ministers of the Environment of the Baltic Sea coastal states and the Commissioner for the Environment of the European Commission, assembled in Lübeck, Germany, on XY October 2021, on the occasion of the Ministerial Meeting of the Helsinki Commission:

2. **RECALL** the provisions of the 1992 Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention);

3. **REITERATE** the commitment of the Contracting Parties to the Helsinki Convention to restoring a thriving and resilient Baltic Sea ecosystem, as expressed in the HELCOM vision of "a healthy Baltic Sea environment, with diverse biological components functioning in balance, resulting in good environmental status and supporting a wide range of sustainable human economic and social activities";

4. **ACKNOWLEDGE** that the work of HELCOM has led to significant environmental improvements in many areas and specifically that progress in implementing the 2007 Baltic Sea Action Plan (BSAP) has contributed to preventing further deterioration of the environment of the Baltic Sea;

5. **NOTE** with great concern, however, that the goals of the 2007 BSAP were not achieved by 2021 as envisioned, and that the Baltic Sea ~~area~~ is still heavily affected by multiple pressures caused by human activities;

6. **NOTE**, in particular, that: (a) eutrophication, ~~which results from excess nutrient loading to the sea and, partly due to the time lag between measures and effects~~, continues to heavily impact ~~on~~ the Baltic Sea , partly as a result from excess nutrient loading to the sea and partly due to the time lag between measures and effects; (b) levels of hazardous substances are still elevated or unknown and a cause for concern; (c) invasive alien species are still being introduced into the Baltic Sea; (d) marine litter is a pressure of special concern; (e) around half of the seabed is potentially disturbed ~~by human activity~~; (f) other pressures such as underwater noise disturb marine life; (g) overall the unfavourable conservation status of Baltic marine biodiversity is widespread ~~as a result of human activities~~, with several species still in danger of becoming extinct, a poor status of most of the assessed habitats and various biotopes and habitats at risk of disappearing, as well as food webs showing signs of deterioration;

7. **NEW PARAGRAPH SHOULD BE ADDED REFERRING TO ECOSYSTEM APPROACH e.g. REAFFIRMS that HELCOM works on the basis of ecosystem approach….**

8. **REITERATE**, moreover, that the effects of climate change on the Baltic Sea are already evident and that climate change will continue to have an increasingly significant impact on the Baltic Sea ecosystem, necessitating even more stringent action, among other things in the global framework established by the United Nations Framework Convention on Climate Change and the Paris Agreement, as well as continued research and adaptive management to mitigate the effects, of and strengthen the resilience of the Baltic Sea to climate change [by reducing other human pressures on the ecosystem];

9. **UNDERSCORE** that we must continue to strive for good environmental status since the current state of the Baltic Sea marine environment remains unsatisfactory as a result of pressures from land- and sea-based human activities and that recovery is not yet sufficient to achieve the goals of the BSAP;

10. [**STRESS** the continued need to safeguard the safety of navigation ~~and~~ with a view to preventing accidents and thereby also minimize the risk of accidental pollution from ships]

Commented [SK1]: EE: Not necessary to mention the year of the convention as there is only one convention in force

FIN: Would prefer leaving 1992 since it specifies the convention. There is the Convention with the same name from 1974.

Commented [SK2]: EE: maybe its better to have „contributed to prevent"

FIN: Could we leave all editorial work to be done by the Secretariat, including checkin the English language except in cases where the text cannot be understood.

Commented [SK3]: SE: Language issue, here is a proposal for rephrasing

FIN: Yes, this improves the text.

Commented [LM(4]: FIN: We should keep "by human activity".

Commented [SK5]: EE: we prefer to delete the reference to human activities, because all the pressures are related to human activities

FIN: We are not in favour of deleting those referrrals. It is not self evident to everybody that they are a cause of human activities and we also need to explain why we need to take measures.

Commented [LM(6]: FIN: We would need a new paragraphs somewhere in the beginning to emphasize that HELCOM applies the ecosystem approach and the BSAP is a practical demonstration of that.

Commented [LM(7]: FIN: To be deleted? Text not understandable with it.

Commented [LMS8]: DK: If the comment by EE about deleting referance to human activities is accepted – then this should be deleted as well.

FIN: This is a key issue for increasing resilience!– not to be deleted here either.

Commented [LMS9]: DK: Text suggestion, but is the main issue the safety of navigation or pollution from ships? This is still not fully clear.

FIN: Taken that the goal is ""environmentally-sustainable sea-based activities", we support the addition proposed by DK.

11. **RECALL** the decision by the 2018 Brussels Ministerial Meeting to update the BSAP by 2021 at the latest, with the aim of elaborating a robust action plan that will retain at least the level of ambition of the 2007 plan and will address new issues in addition to the existing commitments to be fulfilled by 2021 and will be aimed at achieving the agreed HELCOM vision of a healthy Baltic Sea marine environment;

12. **RECALL** also the Declaration adopted by the Ministers of the Environment, Maritime Economy, Agriculture and Fisheries of the ~~EU~~ Baltic Sea Member States of the EU and of the Commissioner for ~~'~~Environment, Oceans and Fisheries~~'~~ on September 28, 2020, committing to jointly boosting efforts to bring the Baltic to a good environmental status;

11bis. **[REITERATE** our commitment from the 2018 Helcom Ministerial declaration to increase HELCOM's preparedness to respond to climate change impacts, by taking foreseen climate change impacts into account when updating the BSAP and by exploring the needs and possibilities to further adapt HELCOM's policies and recommendations.**]**

11ter. [**AGREE** to compile all climate mitigation and adaptation measures resulting from the BSAP [in an unofficial HELCOM BSAP- NDC][that contribute to the Paris agreement] ~~to~~ for ~~be~~ publication~~shed~~ on the UNFCCC-NAZCA portal and the HELCOM homepage in 2024 and thereafter updated every 5 years as part of the climate ambition mechanism.]

13. **AFFIRM** that, in order to address all relevant aspects of the ecosystem and the emerging challenges of marine management, the goals underpinning the updated BSAP are a "Baltic Sea unaffected by eutrophication", a "Baltic Sea unaffected by hazardous substances and litter", supporting "environmentally-sustainable sea-based activities", all of which will lead to a "healthy and resilient Baltic Sea ecosystem";

14. **ACKNOWLEDGE** the significant cost implications of not taking action against the varied threats to the Baltic Sea ecosystem and **NOTE**, for example, that according to the most recent "State of the Baltic Sea" report losses in recreational values alone due to the deterioration of the marine environment are estimated to be 1-2 billion euros annually and that a significant amelioration of the undesirable status regarding eutrophication, is estimated to result in annual economic benefits in the order of 4 billion Euros across all relevant sectors of the economy;

15. **UNDERSCORE**, ~~therefore~~, the socio-economic benefits of the good environmental status of the Baltic Sea and therefore the need of implementing the measures and actions contained in the BSAP with a view to achieving good environmental status;

16. **STRESS** that the achievement of good environmental status for the Baltic Sea will require major efforts and transformational change in all sectors of the economy affecting the sea, including agriculture, aquaculture, fisheries, wind energy production, tourism, logistics, maritime transportation and manufacturing, and necessitates among other things an increase in efficiency in the use of resources and a transition to a clean and sustainable circular economy and carbon neutrality;

17. **UNDERSCORE** the need to integrate environmental objectives with ~~social and economic as well as~~ socio-economic goals in order to advance sustainable development and **STRESS** the need for coherent spatial planning of human activities at sea across the region, applying the~~an~~ ecosystem-based approach;

18. **STRESS** the continued need for strong regional and cross-sectoral cooperation in working towards achieving good environmental status, involving relevant international, European and national organizations, financing [and insurance] institutions, scientific and research institutions, civil society and the private sector;

Commented [SK10]: EE: We do not support having these climate points included in this part, we think that overall in this BSAP we take account the climate change impacts

Commented [LMS11]: DK: While we do agree that a submission to the NAZCA portal could be useful to showcase actions, we suggest deleting the sentence on an "unofficial NDC" to avoid confusion with the formal NDC process.

FIN: We support DK and think that "contribute to the Paris agreement would sufficiently explain what the activity is about.

Commented [SK12]: EE: editorial changes to better understand

Commented [SK13]: EE: proposal to add other important economic activities

FIN: We support other proposed additions, but "maritime" not, now it would limit transportation unnecessarily to shipping only although land transportation is a source of NOX for example and needs to be considered in terms emissions.

Commented [SK14]: EE: this repeats the next socio-economic part

FIN: Agree

19. **ACKNOWLEDGE** the positive contributions made by intergovernmental organisations and non-governmental organisations towards preserving and protecting the Baltic Sea ~~Area~~ and working towards a prudent utilisation of its marine goods and services and

20. **NOTE** with gratification that the updated BSAP was developed in a participatory and transparent way ~~at the~~, involving all appropriate stakeholders

21. **WELCOME** that it is based on the ecosystem approach, the precautionary principle, and relevant scientific research, enables knowledge sharing between science and policy across all levels, and gives due consideration to economic and social impacts of the measures to be taken into account to meet its objectives;

22. **REITERATE** the determination of HELCOM Contracting Parties to implement the 2030 Agenda for Sustainable Development as well as the post 2020 Global Biodiversity Framework adopted under the Convention on Biodiversity and to engage with other relevant regional and global processes and **STRESS** the role of HELCOM in leading the regional efforts to this effect and as an important and recognized contributor in the context of international ocean governance;

23. **REITERATE** the need to coordinate and harmonize the work in the context of the HELCOM BSAP, our strategic programme of measures and action, with various political and instruments and ongoing initiatives at the international, European, regional and national levels, including in particular the EU Marine Strategy Framework Directive and the European Green Deal, as well as all other pertinent EU legislation and programmes and all pertinent legislation and policies of the Russian Federation, including the Maritime Doctrine and the Strategy for development of maritime activities until 2030 of the Russian Federation;

24. **AGREE** that the implementation of the actions in the updated Baltic Sea Action Plan will be followed up regularly, effectiveness of ~~action taken~~measures ~~shall~~ will be ~~continue to be~~ evaluated by using appropriate indicators to ~~measure show~~demonstrate the progress towards the targets and to adjust measures if needed to achieve the objectives~~, allowing for the adjustments needed to ensure that the objectives are achieved~~;

25. **ACKNOWLEDGE** that the environmental targets in the various segments of the present plan are based on best available knowledge at the time of its elaboration and that, in line with the principles of adaptive management, the targets should be periodically reviewed and revised using a harmonised approach and the most up-to-date information;

[24a. **AGREE** to amend Annex III part II Prevention of pollution from Agriculture of the Convention by adopting HELCOM Recommendation 41E/x;

24.b **AGREE** ~~to~~ on the update of the Regional Action Plan on Marine Litter and to this end ~~by~~ adopt~~sing~~ the Recommendation xx-x;

24.c **AGREE** to adopt the following documents:

- the Baltic Sea Regional Nutrient Recycling Strategy;
- the Regional MSP Roadmap 2021-2030;
- the HELCOM Science Agenda];

26. **STRESS** the continued validity of existing HELCOM Recommendations also after adoption of the present BSAP;

27. **AGREE** to realize all actions and commitments in the updated BSAP by the dates specified in the plan, with a view to finalizing implementation of the BSAP as a whole by 2030 at the latest;

Commented [SK15]: EE: editorial note

Commented [SK16]: EE: what is meant here, is it BSAP?

Commented [LM(17]: FIN: We propose deleting EA from here and having a separate paragraph on ecosystem approach in the beginning of preambular text. EA is essential and HELCOM is among the first organisations having fully embraced it and we should be more open and vocal about it.

Commented [SK18]: EE: this is too complicated, do not understand in such wording

Commented [LM(19]: FIN: The text would be more understandable if this "and" would be deleted.

Commented [SK20]: SE: Reaffirm? This is not new

Commented [LM(21]: FIN: This would be necessary to include here. The use of the Explorer can be included in the "About" part. In our view it is a priority to follow up on the implementation of measures and secondary to follow up on the effects of measures.

Commented [LM(22]: FIN: Shall language is language of legislation and law which this is not, hence, please use "will" here.

Commented [LM(23]: FIN: Perhaps word "demonstrate" would have a more Action Plan like tone to it?

Commented [SK24]: EE: What are the targets of BSAP in this contents? Maybe its enough to use objectives only.

Commented [LM(25]: FIN: Perhaps this formulation would bring the adoption closer to the Ministers and a decision that they make. Otherwise the beginning sounds as if the updating is somewhere in the future.

Commented [SK26]: EE would prefer some better understandable word instead of „realize" in this context. It has been meant here, „to take into action" , to make it happen, but this „realize" is not the best word to our mind. Possible wording „enforce"

FIN: Word "implement" would be the clearest and the best.

28. **WITHOUT PREJUDICE TO,** and seeking synergies with, national legislation, international agreements and the legislation of the European Union, as well as the legislation of the Russian Federation;

29. **ADOPT THE FOLLOWING UPDATED BALTIC SEA ACTION PLAN, AIMED AT ACHIEVING GOOD ENVIRONMENTAL STATUS IN THE BALTIC SEA**

Commented [SK27]: EE: if the meaning of this point is the same as in 22, then these could be merged or even deleted one of them

About

The Baltic Sea Action Plan, or BSAP, is HELCOM's strategic programme of measures and actions for achieving good environmental status of our sea, ultimately leading to a Baltic in a healthy state.

Initially adopted by the HELCOM Contracting Parties – the nine Baltic Sea countries plus the European Union – on 15 November 2007 during the HELCOM Ministerial Meeting held in Krakow, Poland, the original BSAP had set 2021 as the target year for achieving its ecological objectives – which weren't fully met by then as indicated by various HELCOM assessments.

But because the BSAP has, nonetheless, delivered unprecedent results and considerably improved the ecological state of the Baltic Sea, the HELCOM Contracting Parties decided to update the plan. The revised BSAP was consequently adopted during the HELCOM Ministerial Meeting held in Lübeck, Germany on 20 October 2021.

The updated BSAP is based on the initial plan, maintaining the same level of ambition and retaining all previously agreed on actions that are still to be implemented.

The update is also an opportunity to include new actions and measures to strengthen existing efforts and to address emerging or previously unaddressed challenges such as marine litter, pharmaceuticals, underwater noise, disturbance to the seabed, and the effects of climate change.

Guided by the HELCOM vision of *"a healthy Baltic Sea environment with diverse biological components functioning in balance, resulting in a good ecological status and supporting a wide range of sustainable economic and social activities"*, the updated BSAP is structured in four segments, each with its specific goals (Figure 1):

- **Biodiversity**, with its goal *"Baltic Sea ecosystem is healthy and resilient"*,
- **Hazardous substances and litter**, with its goal *"Baltic Sea unaffected by hazardous substances and litter"*,
- **Sea-based activities**, with its goal of *"Environmentally sustainable sea-based activities"*, and
- **Eutrophication**, with its goal of *"Baltic Sea unaffected by eutrophication"*.

Each segment ~~further contains a number of~~ is structured around the updated HELCOM ~~-~~ecological and management objectives ~~depicting a desired state to be attained, as well as a number of management objectives~~ and contains concrete measures and actions to be implemented by 2030 at the latest.

The division of the main segments seeks to reflect the pressures stemming from land ("Eutrophication", and "Hazardous substances and litter") and from our activities at sea ("Sea-based activities"), as well as the state of the environment ("Biodiversity").

These segments are interconnected; ~~, as the pressures on the Baltic Sea directly influence the state of the environment. In consequence,~~ attaining the goal under the biodiversity segment also relies on the successful implementation of the actions included under the three pressures segments.

~~A cross-cutting issue affecting all segments, climate change features prominently in the updated BSAP, in the horizontal actions segment. Because other human-induced pressures already weaken the marine ecosystem, the Baltic Sea is particularly vulnerable to changes in the climate. Measures are therefore needed within all~~

Commented [SK28]: SE: Sounds very general. Consider indicating, somehow, thar we have made substantial assessments, e.g HolasII, SOM and Explorer?

FIN: Can't we refer to the vision of a healthy Baltic Sea if not to a good environmental/ecological status by 2021 as stated in the BSAP?

Commented [SK29]: SE: Consider deleting. There are several reasons for updating. But the "why" might be better placed in the MD2021? and it was expressed in MD2018

Commented [AJA30R29]: DK agree, further more the wording of the why is a bit misleading – due to the result, HELCOM would like to update the plan?
FIN: We also find this para perhaps not necessary and not very elegant (first sentence) and redundant (second sentence). Much is included already in the preambular text.

Commented [SK31]: SE: Consider deleting, redundant. It is not only an opportunity: the plan is now developed and should show how we have used that opportunity.

Commented [AJA32R31]: DK agree – it would be misleading to have an updated plan without new measures.
FIN: Could this maybe be written in a form of "what has changed or is new in relation to BSAP2007"?

Commented [SK33]: SE: As written here "Biodiversity" stands out whereas the goal is less visible. Should be the other way round.

~~segments to strengthen the overall resilience of the Baltic Sea to be able to respond to the effects of climate change.~~

In addition, the horizontal actions segment ~~also~~ contains cross-cutting issues including actions and measures on climate change, monitoring, maritime spatial planning, economic and social analysis, knowledge exchange and awareness raising, hot spots, and financing~~, all having an incidence on the four main segments~~. Notably, measures within all segments will strengthen the overall resilience of the Baltic Sea to be able to respond to the effects of climate change.

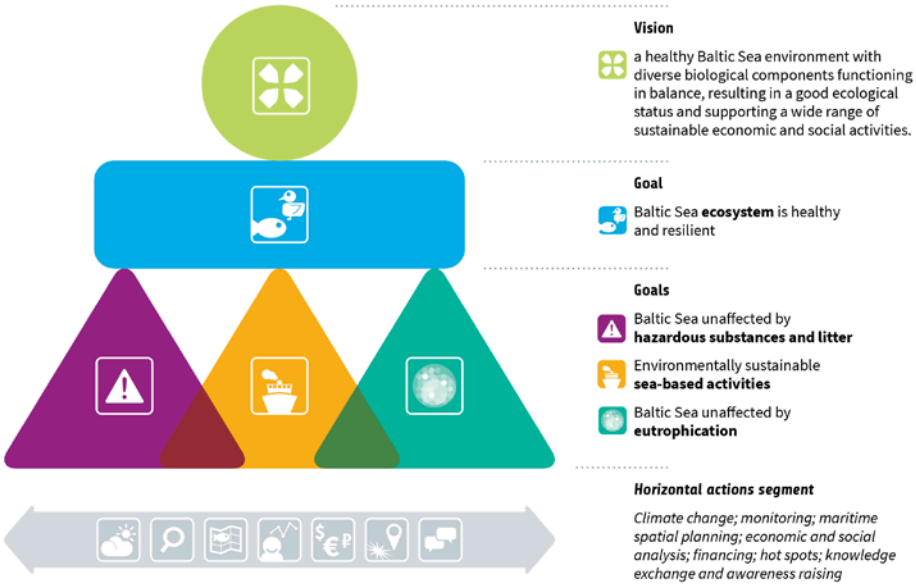

Figure 1: The structure of the updated BSAP including its vision and goals

The actions in the updated Baltic Sea Action Plan will be followed ~~up~~ through ~~included in~~ the online tool HELCOM Explorer~~, which is an online tool for following up the implementation of HELCOM actions~~. The first reporting on the implementation of actions will take place in [2025] and the second reporting in [2029]. Additional information on the BSAP actions can be found in a supporting document.

Commented [SK34]: SE: This needs strengthened: how do we ensure actions are taken? Consider adding e.g. "the achievement of the objectives are regulalry assessed in HELCOM with the use of indicators, threshold values, and targets for pressures where such have been agreed".

FIN: The perspective mentioned by SE is in the Preamble. We consider the follow up of the implementation of the actions to be of utmost importance and hence would like to see the key part of this para to be shifted to the Preamle. We would not oppose shifting the issues mentioned by SE from the Preamble to this paragraph. Overlap should be avoided.

Biodiversity segment - The Baltic Sea ecosystem gets is (~~becomes, will be~~) healthy and resilient

Visualization/text box to be added to include the following information:

Goal: Baltic Sea ecosystem is healthy and resilient.

Links to climate change *(from the Climate Change Fact Sheet, to be reviewed)*

Direct effects

Air temperature
Water temperature
Sea ice
Solar radiation and cloudiness
Salinity and saltwater inflow
Stratification and ocean circulation
River run off
Oxygen
Carbonate chemistry
Riverine nutrient loads and atmospheric deposition
Sea level
Waves

Indirect impacts
Microbial community and processes
Benthic habitats
Coastal and migratory fish
Pelagic and demersal fish
Water birds
Marine mammals
Ecosystem function
Marine protected areas
Blue carbon storage capacity
[Non-indigenous species]
[Nutrient concentrations and eutrophication]

SDG targets addressed

- 14

Pressures addressed *(to be reviewed)*

-

Tentative activities addressed *(to be reviewed)*:

Cross reference with other segments:

Commented [JH35]: DG BSAP BIO 4 discussed whether the goal for the biodiversity segment should be used as a title of the segment or the modified version previously proposed and agreed that this should be settled by DG BSAP as part of the work to align the segments.

Commented [JH36R35]: SE: This needs discussed again; consider added value compared to just using the Goal

- A healthy and resilient Baltic Sea ecosystem is the ultimate objective of the Baltic Sea Action Plan against which its entire performance is measured[1];
- Achieving the goal of a "Baltic Sea ecosystem is healthy and resilient" requires that the goals of all other segments are met.

Description of current state

Biodiversity in the Baltic Sea is deteriorating as a result of pressures from various human activities, the effects of which are further pronounced by climate change. Many widely distributed or long-lasting pressures have had far-reaching impacts on both individual species and ecosystems. Although recently implemented measures may lead to an improvement in the coming years, continued and intensified efforts to improve the status of biodiversity are of key importance. All actions targeting sea-based activities (including fishing) eutrophication, hazardous substances and litter, are critical for improving the state of biodiversity in the Baltic Sea. Given the increasing overall pressures and legacy effects of many human activities in the Baltic Sea, many species and habitats are in urgent need of protection and enhanced conservation actions are needed along with reduction of pressures. A central overarching aspect in this regard is the ecosystem approach, accounting for the existence of multiple pressures and species distribution.

Despite the progress in the implementation of policy responses and actions to conserve nature and manage human activities during the past decades, they have not been sufficient to stem the direct and indirect pressures and halt the deterioration of biodiversity.

Most species of fish, birds and marine mammals, as well as benthic and pelagic habitats in the Baltic Sea are currently not in a healthy state. Almost 100 macro-species in the Baltic Sea (approximately 3,5%) are regarded as being in danger of becoming regionally extinct, and signs of deterioration at food web and ecosystem level are becoming more wide-spread and frequent. An incremental degradation of various near shore habitats, which are important to most Baltic Sea species during at least some part of the life cycle, and the wide distribution of areas with low oxygen conditions close to the seabed are particular causes for concern. The impacts on biodiversity also extend to limit prospects for socioeconomic benefits from the Baltic Sea ecosystem.

Connection to other treaties

HELCOM commitments are well aligned with the Sustainable Development Goals of the United Nations Agenda 2030, with the long-term 2050 vision of the Convention on Biological Diversity, and with the EU Biodiversity Strategy, which in turn is an integral part of the EU Green Deal. This holds true even in those cases where HELCOM commitments predate these processes.

Description of desired state

The ultimate goal of the Baltic Sea Action Plan with respect to biodiversity and ecosystems is that the **Baltic Sea ecosystem is healthy and resilient**. This is supported by Ecosystem-Based management of human activities**.**

This is described through the mutually supportive and interlinked ecological objectives of attaining:

- Viable populations of all native species
- Natural distribution, occurrence and quality of habitats and associated communities
- Functional, healthy and resilient food webs

Commented [JH37]: SEC: order changed in DG BSAP BIO 4

Commented [JH38]: SE: Consider deleting or rephrasing: Something wrong with the sentence, the EA "accounts" for existence of multiple pressures etc.. the whole BSAP ccounts for multile pressures, as does MPA management etc. EA is also much more that accounting for (…)

Commented [JH39]: SE: cumulative impacts should be mentioned, maybe here?

Commented [JH40]: SE: Repetition.

Commented [JH41]: SE: SDG should at least be clearly linked to biodiversity.

[1] Note that this sentence is a proposed rewrite of the what was written in the original document 2-4 to HOD 56-2019. Original text was: Biodiversity serves as a holistic controlling element for the performance of the whole Action Plan.

A healthy and resilient ecosystem is one which can maintain its species and communities over time in the face of external stress. This includes that populations have age- and spatial distributions in line with their natural limits and key ecosystem functions and processes are upheld naturally, in an interacting network of species and habitats. In turn a prerequisite to securing the vitality and long-term survival of these species and populations is ensuring adequate quality, distribution and occurrence of natural habitats that support the communities associated with them. Each of these key elements strengthen the functionality, health and resilience of the food webs, ultimately securing the integrity and long-term sustainability of the ecosystem as a whole.

Reaching desired state: management objectives

In order to reach the desired state the following management objectives have been identified for biodiversity:

- Effectively managed and ecologically coherent network of marine protected areas
- Minimize disturbance of species, their habitats and migration routes from human activities
- Human induced mortality, including hunting, fishing, and incidental bycatch, does not threaten the viability of marine life
- Effective and coordinated conservation plans and measures for threatened species, habitats, biotopes, and biotope complexes
- Reduce or prevent human pressures that lead to imbalance in the foodweb

Achieving the biodiversity goal and the ecological objectives in a sustainable way requires management actions which limit the number as well as intensity of pressures affecting the ecosystem and strengthening the resilience of the Baltic Sea ecosystem. This is achieved by managing the underlying human activities and by protecting and restoring the environment. Restored and properly protected marine ecosystems bring substantial health, social and economic benefits to coastal communities and the region as a whole. Towards this end HELCOM will take joint action to form a common understanding of ecosystem based management by 2023 and specify how the BSAP can contribute to the operationalisation of ecosystem based management.

Commented [JH42]: SE: Purpose of this para is unclear. Maybe focus on mentioning that the pressures and activities are addressed in other segments, while this focuses on protection etc?

Actions

As part of the work it is foreseen that existing HELCOM commitments closely linked to the management objectives are reviewed and amended to ensure content is aligned with new regional action and global initiatives, and to further strengthen the objectives and level of ambition. This includes to:

- by [2023] review and amend Recommendation 35/1;
- by [2025] review and update as needed the HELCOM guidance on planning and designating [HELCOM] MPAs.

~~Actions~~

Reaching the goals and objectives for biodiversity is enabled by implementing the following actions:

Code	Actions
Provisional theme: Spatial conservation measures	
Provisional topic: Spatial coverage of conservation measures	
BE02/ BE03/ BE04/ BN02/	By (2030) at the latest, establish a resilient, regionally coherent, effectively and equitably managed, ecologically representative and well-connected system of [HELCOM/] marine protected areas [supported by other spatial conservation measures under alternative regimes for marine protection,

Code	Actions
BN01/ BN03	which can and should contribute to the coherence of the network].Where scientifically justified, special attention should be given to offshore areas beyond territorial waters. The network of protected areas shall: - cover at least 30% of the marine area of the Baltic sea, of which at least 1/3 shall be strictly protected. [Designation of MPAs should conform to the HELCOM MPA designation guidelines.] - Where scientifically justified, consider to include no-use zones within strictly protected areas, which can also serve as scientific reference areas. - expand conservation efforts to actively include areas of particular importance for biodiversity and ecosystem resilience, including important ecosystem elements such as species or areas recognized to be ecologically significant based on function for the ecosystem/provisioning of ecosystem services and broad habitat types, but which may not necessarily be rare or threatened.
Provisional topic: Other Effective Area-based Conservation Measures (OECM's)	
BE06/ BE07	[By 2022] come to a common understanding of the OECMs criteria and their use in HELCOM, based on definitions agreed in CBD and the EU, and define [if/how] OECMs can support the coherence of the MPA network and the spatial conservation target of protecting 30% of Baltic Sea marine area. By [2025] identification of OECMs in the Baltic Sea region.
Provisional topic: Spatial protection management	
BN04/ BE12	By [2030] strengthen the management of the Baltic Sea MPA network by introducing key elements into management efforts, including but not limited to those highlighted here, to increase effectiveness of protection, includuing by providing support to Baltic Sea MPA managers through capacity building e.g., through annual workshops. By [2023] update, and by [2025], apply HELCOM MPA management guidelines with focus on: a) Assessments and evaluation methodology and structures for management effectivness; b) Setting quantitative conservation objectives; c) Effective conservation measures that reduce pressures; d) Establishment of indicators to monitor management performance and status of conservation features; e) Establishment of a common monitoring strategy and evaluation of conservation features and pressures; f) Adaptive management.
BE13	By [2026] nationally ensure that MPA management plans and/or measures are legally binding and ensure appropriate structures are in place to enforce compliance. (Provisionally agreed by HELCOM 42-2021)
BE14	Develop, implement and share information of effective management measures to reduce the impact of fisheries inside marine protected areas. (Provisionally agreed by HELCOM 42-2021)
Provisional topic: Coherence of the MPA network	
BE08/ BE09/ BE10	The coherence of the MPA network shall be periodically assessed at least every 10 years, the next such assessment to be carried out by [2025]. By [2027] the results from the coherence assessment are to be used to take appropriate actions to ensure conservation and resilience of biodiversity, and to identify possible spatial conservation expansion needs to improve coherence. (Provisionally agreed by HELCOM 42-2021)
BE11	Ensure that by [2030] the HELCOM MPA network inter alia provides specific protection to species and biotopes listed as regionally threatened or near threatened in the HELCOM Red Lists. (Provisionally agreed by HELCOM 42-2021)

Code	Actions
Provisional theme: Conservation of species	
Provisional topic: Conservation of seabirds	

Code	Actions
BE15/ BN05	Maintain an updated map of the sensitivity of seabirds to threats such as wind energy facilities, wave energy installations, shipping and fisheries. Complete, as a first step, the mapping of migration routes, staging, moulting and breeding areas based on existing data by [2022], By [2025] further develop these maps by incorporating new data, post-production investigation information and addressing the subject of cumulative effects from these activities in space and time.
BE16	By [2023] and onwards with new findings use the produced maps in EIA procedures with the aim to protect migratory birds against potential threats arising from new offshore wind farms and other installations with barrier effect (Provisionally agreed by HELCOM 42-2021)
BE17	To by the next update cycle of the marine spatial plans seek to incorporate the produced maps in the work concerning maritime spatial planning to avoid that maritime activities impair seabirds and their habitats. (Provisionally agreed by HELCOM 42-2021)
BE18	By [2027] assess the effectiveness of conservation efforts to protect seabirds against threats and pressures. (Provisionally agreed by HELCOM 42-2021)
Provisional topic: Conservation of harbour porpoise	
BE19	By [2022] at the latest, specify knowledge gaps on all threats to the Baltic Proper harbour porpoise population, and by [2023] for the western Baltic population, including bycatch and areas of high bycatch risk, underwater noise, contaminants and prey depletion, identify possible mitigation measures and implement such measures as they become available. Knowledge gaps related to areas of high by-catch risk are to be addressed by [2026] and by [2028] at the latest additional areas of high bycatch risk for both Baltic Sea populations are to be determined.
Provisional topic: Conservation of fish	
BE20/ BE21/ BE22	Develop and coordinate monitoring and assessment methods, where ecologically relevant, for specified representative coastal fish species, populations and communities, by [2023]. Based on these assessment methods, to regularly assess the state of the coastal fish community through selected coastal fish species and groups, including threatened species, by at latest [2023]. Based on the results of the assessment, develop and implement management measures with the ambition to maintain or improve the status of coastal fish species, including migratory species by [2027].
BE23/ BN06/ BN07/ BE41	To strengthen native strains and to reinstate migratory fish species: -By [2023] identify rivers where management measures for migratory fish species, especially for eel, would have the greatest positive impact. -Starting from [2025], every 5 years, review and regionally priorities effective mitigation measures in the identified rivers and/or dams, including removal of dams and migration barriers where relevant and possible, especially in small waterways. -Develop and implement habitat restoration plans of spawning sites for anadromous species in relevant rivers by [2025].
BE24	In alignement with CMS, the EU Eel Regulation and other relevant instruments, finalize [by 2023] and implement by [2024] a Baltic coordinated programme of protective measures ensuring successful eel migrations.
BN08	Restore functional populations of Baltic sturgeon by [2029] implementing HELCOM Baltic Sea Sturgeon Action Plan
Provisional topic: Conservation of seals	
BE25/ BE26	By [2023] finalise and implement national or local conservation and/or management plans for grey seals.
BE27/ BE28	By [2023] finalise and implement of national conservation and/or management plans for ringed seals
BE29	Protect the ringed seal in the Gulf of Finland, including to significantly reduce by-catch and to improve the understanding of the other direct threats on the seals, and urge transboundary co-operation between Estonia, Finland and Russia to support achieving a viable population of ringed seals in the Gulf

Code	Actions
Provisional topic: Conservation of benthic species	
BN09	By [XXXX] assess the status of the Haploops species and the biotope, as well as key threats and, if relevant based on the assessment, by [XXXX] develop a joint conservation plan for Haploops species including jointly agreed measures to improve the status of the species and biotopes, to be implemented by [XXXX].
Provisional topic: Red listed species	
BE36a	To update the HELCOM Red List Assessments by [2024], including identifying the main individual and cumulative pressures and underlying human activities affecting the red listed species.
BE37a/ BE38a/ BE39a	By [2025] develop, and by [202X] implement, and enforced compliance with, ecologically relevant conservation plans or other relevant programmes or measures, limiting direct and indirect pressures stemming from human activities for threatened and declining species. These shall include joint or regionally agreed conservation measures for migrating species.
BE40a	Develop tools for, and regularly assess, the effectiveness of other conservation measures for species, besides MPAs, the first assessment to be done by [2025] as well as assess effect on species through risk- and status assessments by [2029].
Provisional topic: Data and information to support species conservation measures	
BE30	To include information on functional and lifehistory traits for the species in the HELCOM Biodiversity Database, by [XXXX].

Code	Actions
Provisional theme: Conservation of habitats and biotopes	
BE31	Map ecosystem services and the present and potential spatial distribution of key ecosystem components, including habitat forming species such as bladder wrack, eelgrass, blue mussel and stoneworts Baltic-wide, by [2025].
BE32/ BE33/ BE34/ BE35/ BN10	To protect key ecosystem components including habitat forming species by [2030], by: - assessing the state of, and threats to these key ecosystem components by [2023] - implement effective and relevant threat mitigation measures based on the threat and state assessments, including restricting human activities associated with causing physical loss or disturbance, by [2030] - identifying suitable areas for passive or active restoration of habitats and key ecosystem components by [2025] [and implementing programmes for restoration as outlined in the HELCOM Restoration Action plan by [2030]].
Provisional topic: Red listed habitats and biotopes	
BE36b	To update the HELCOM Red List Assessments by [2024], including identifying the main individual and cumulative pressures and underlying human activities affecting the red listed biotopes and habitats.
BE37b/ BE38b/ BE39b	By [2025] develop, and by [202X] implement, and enforced compliance with, ecologically relevant conservation plans or other relevant programmes or measures, limiting direct and indirect pressures stemming from human activities for threatened and declining biotopes and habitats.
BE40b	Develop tools for, and regularly assess, the effectiveness of other conservation measures for habitats and biotopes, besides MPAs, the first assessment to be done by [2025] as well as assess effect on biotopes and habitats through risk- and status assessments by [2029].

Code	Actions
Provisional theme: Habitat restoration	
BN11a-BN11l	Alternative 1: By [2023] develop and by [2025] start implementing a HELCOM [restoration plan/Action Plan] for habitat and biotope restoration, including qualitative and quantitative regional targets, a prioritized

	list of actions, and an associated implementation toolbox outlining best practices and methods for restoration in the Baltic Sea region. Alternative 2: By 2023 develop best practices and methods for habitat restoration in the Baltic sea region, including where relevant setting targets for restoration of habitats and biotopes. By [2025] start implementing restoration actions.

Code	**Actions**
Provisional theme: Enabling ecosystem-based management	
Provisional topic: Indicators, general	
BE42	By [2024] develop a roadmap to fill gaps to enable a holistic assessment for all relevant ecosystem components and pressures and by [2030] at the latest develop and fully operationalise a set of indicators fulfilling HELCOM's needs, which include the need to provide a regional platform for the MSFD.
BE43	Develop common indicators, threshold values to evaluate the status of food webs by [2026], where applicable and implement a holistic assessment of food webs no later than [2030].
Provisional topic: Spatial pressure and impact assessment	
BE44	To identify by [2022] data needs for spatial pressure and impact assessment of human activities, including cumulative impacts, and implement by [2024] at latest methods for mapping and assessment of adverse effects on the ecosystem of human activities in the Baltic Sea region
Provisional topic: Support for developing habitat maps	
BE45/ BE47	Update the HELCOM HUB-classification where gaps have been identified by [2024], and [by 2025] develop a fully functioning translation matrix between HUB, MSFD broad habitat types, HD habitats and EUNIS, in co-operation with EMODNET.
Provisional topic: Status of fish populations	
BN14	By [2023] conclude a set of indicators for the assessment of fish population health, including size and age distribution.

Eutrophication segment - A Baltic Sea unaffected by Eutrophication

Visualizations/text boxes to be added to include the following information:

Goal: Baltic Sea unaffected by eutrophication

Links to climate change: *(from the Climate Change Fact Sheet, to be reviewed)*

Direct effects
Water temperature
Stratification and ocean circulation
Carbonate chemistry
Riverine nutrient loads and atmospheric deposition
Oxygen

Indirect impacts
Nutrient concentrations and eutrophication
Ecosystem function
Aquaculture

SDG targets addressed:

- SDG2 2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
- Some targets from SDG 6 are also relevant.
- 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

Pressures addressed (*to be added)*:

Activities addressed by HELCOM actions (*to be added)*:

Cross reference with other segments:

- Reaching the objectives for eutrophication is a necessity to meet the goal of a 'Baltic Sea ecosystem is healthy and resilient';
- Reaching the goal and objectives for sea-based activities is a requirement for reaching the goal for eutrophication.

Description of current state

Eutrophication remains the major environmental problem of the Baltic Sea, resulting in intense algal growth and depletion of oxygen on the bottom of the sea, leading to vast areas with anoxic or hypoxic conditions in the Baltic Sea and affecting the functioning of the entire ecosystem. Despite of the observed slight long-term improvement, [96%] of the region is still below good eutrophication status, including all of the open sea area and [86%] of the coastal waters (assessment years 2011-2016). Further, the eutrophication status has deteriorated lately in four of the 17 sub-basins, which might be attributed to temporal variability in climate and hydrography.

Eutrophication is caused by excessive input of nutrients to the aquatic environment. Total input of nutrients to the Baltic Sea consists of natural background and input originating from various human activities on land and at sea. Nutrients reach the Sea via water and air. Waterborne input includes transport by rivers and direct discharges from point sources. The riverine input is dominating for both nitrogen and phosphorus, while direct sources contribute few percent. Airborne transport plays a significant role for the input of nitrogen contributing [27] percent of the total load. Excessive anthropogenic nutrient inputs to the Baltic Sea in the past have led to accumulation of a considerable amount of phosphorus in the bottom sediments. When phosphate is released from the sediments under hypoxic conditions it contributes to the total nutrient load on the marine ecosystem, thereby fuelling the vicious circle of Baltic Sea eutrophication.

Inputs of nutrients have decreased significantly to almost all sub-basins. Significant reductions, [14%] for nitrogen and [24%] for phosphorus, have been achieved by all HELCOM Contracting Parties in the past two decades. Nevertheless, the original nutrient input targets, set by the Baltic Sea Action Plan adopted in 2007, will not be achieved by 2021.

Most of the reduction so far has been achieved through measures addressing point sources, such as wastewater treatment facilities and industries, and airborne input of nitrogen, primarily due to reduction of emissions in energy and transport sectors. No significant reduction of input from diffuse sources has been observed in the last two decades, though, diffuse nutrient run off contributes almost 35 percent of the riverine input. Agriculture is the main contributor to the diffuse load of nutrients to the Baltic Sea, and this sector has also the highest reduction potential. There is still a reduction potential for point sources, especially in upper parts of river basins, and for scattered dwellings. Despite of the progress achieved in reducing of the nitrogen deposition, further reductions in particular from shipping are still required. Emissions of ammonia remain at the same level and have even increased recently, indicating a need for more effective emission reduction measures in the agricultural sector.

Connection to other treaties

The achievement of good environmental status in relation to eutrophication in the Baltic Sea also relies on additional reduction of inputs from third parties by 2030 as follows:

- 52758 tons of airborne nitrogen since the reference period (1997- 2003) assuming full implementation of the Gothenburg Protocol of the UNECE Convention on Long-range Transboundary Air Pollution and National Emissions Ceilings (NEC) Directive,
- 5561 tons of waterborne nitrogen and 930 tons of waterborne phosphorus since the reference period (1997-2003) assuming that non-Contracting Parties take the same responsibility to reduce nutrients input as the Contracting Parties,
- 16803 tons of airborne nitrogen from shipping due to the implementation of the IMO decision to establish a NECA in the Baltic Sea and North Sea.

In addition to the above-mentioned policies implementation of the EU Marine Strategy Framework Directive, Water Framework Directive, Nitrates Directive, Urban Wastewater Treatment Directive and the Industrial Emissions Directive, as well as the Water Code and Law on Environment protection of the Russian Federation are prerequisites to the achievement of the goal for this segment of the Baltic Sea Action Plan.

Description of desired state

The desired state of the Baltic Sea regarding eutrophication is described by the ecological objectives.

- Concentrations of nutrients close to natural levels
- Clear waters

- Natural level of algal blooms
- Natural distribution and occurrence of plants and animals
- Natural oxygen levels

The achievement of regional nutrient input targets for all sub-basins, as they are identified in this Baltic Sea Action Plan, is the key prerequisite for achieving the ecological objectives.

Maximum allowable inputs ad input ceilings have to be based on the best available scientific knowledge and take into account climate change effects. It should also be acknowledged that achieving of the maximum allowable inputs to all sub-basins does not imply an immediate achieving of all objectives with respect to eutrophication. The ecosystem, which has been under anthropogenic pressure for more than a century, may require from a few up to several decades to recover after nutrient inputs have been reduced. Measures to manage internal nutrient reserves might be applied utilizing the best available scientific knowledge and minimizing potential risks through application of the HELCOM Guideline for sea-based measures to manage internal nutrient reserves.

It should be also ensured that the input of nutrients will not be increased after the achievement of the maximum allowable inputs. It requires building of smart nutrient management system through implementation of the Regional Nutrient Recycling Strategy. Continuous cooperation with the River Basin Management Authorities ensures that river basin management plans, including transboundary rivers, consider environmental targets set by the HELCOM Baltic Sea Action Plan.

Reaching desired state: management objective and strategic decisions.

The management objective of the Baltic Sea Action Plan in respect to eutrophication is to minimize inputs of nutrients from human activities.

The regional targets to reach good environmental status of the Baltic Sea are the maximum allowable inputs of nutrients (MAI) - indicating the maximal level of inputs of water and airborne nitrogen and phosphorus to Baltic Sea sub-basins. The maximum input to the Baltic Sea that can be allowed so that good environmental status regarding eutrophication can still be reached is 792,209 tons of nitrogen and 21,716 tons of phosphorus. The maximum allowable inputs of nitrogen and phosphorus to the Baltic Sea sub-basins, based on the most recent available data on fluxes in the marine ecosystem, are given in the table.

Baltic Sea Sub-basin	**Maximum Allowable Inputs (MAI)**	
	TN, tonnes	*TP, tonnes*
Kattegat	74,000	1,687
Danish Straits	65,998	1,601
Baltic Proper	325,000	7,360
Bothnian Sea	79,372	2,773
Bothnian Bay	57,622	2,675
Gulf of Riga	88,417	2,020
Gulf of Finland	101,800	3,600
Baltic Sea	**792,209**	**21,716**

Net nutrient input ceilings define maximum inputs via water and air to achieve good status with respect to eutrophication for Baltic Sea sub-basins for each country. They are calculated as shares of the maximum allowable inputs to each sub-basin using the proportions of nitrogen and phosphorus inputs in the reference period 1997- 2003. [The agreed] net nutrient input ceilings (NIC) are given in the table. Nitrogen and

phosphorus input ceilings are also calculated for non-HELCOM countries in the Baltic Sea catchment area, other countries with airborne input (OC), Baltic Sea shipping (BSS) and North Sea shipping (NOS).

Net input ceilings for nitrogen (t/year)

	BOB	BOS	BAP	GUF	GUR	DS	KAT
DE	947	3920	34077	1645	1747	23647	4661
DK	280	1148	9025	421	462	28067	28538
EE	113	404	1478	11334	13099	22	24
FI	35087	28700	1827	20457	295	76	89
LT	108	495	25878	305	8820	66	80
LV	73	330	6457	246	43074	31	34
PL	668	3125	151997	1407	1596	1480	1443
RU	839	1993	10317	61503	3296	238	245
SE	17718	32633	30690	626	525	6056	32799
BY	1375	5008	26947	2986	2188	4933	4502
CZ			13456		12820		
UA			3551				
OC			1693				
BSS	284	1141	5180	675	345	651	701
NOS	131	475	2427	196	150	729	884

Net input ceilings for phosphorus (t/year)

	BOB	BOS	BAP	GUF	GUR	DS	KAT
DE			109			401	
DK			21			979	815
EE			9	225	185		
FI	1683	1246		315			
LT			703		175		
LV			167		1061		
PL			4291				
RU			242	2909	99		
SE	811	1133	318			116	753
BY			349		407		
CZ			57				
UA			47				

Net nutrient input ceilings for each country and sub-basin incorporate national shares in the nutrient inputs via transboundary rivers. Thus, nutrient input ceilings were also computed for these rivers and national shares in their total inputs. [Nutrient input ceilings for transboundary rivers are given in the HELCOM BSEP XXX].

All nutrient input reduction measures necessary to achieve the NICs should be fully implemented [by 2027 at the latest] as there is a delay in the reduction of nutrient inputs to the sea.

The input ceilings for nitrogen and phosphorus are based on current scientific knowledge and are subject to uncertainties. [Following the precautionary principle, increased inputs of nitrogen or phosphorus to a basin

should be avoided until both MAI and good status with respect to eutrophication have been reached, even in basins where inputs are already below the input ceilings].

[As reductions of nutrient inputs in sub-basins may have effects on other sub-basins, extra reduction – reduction below the national input ceiling for a sub-basin - can be accounted for, in proportion to the effect on a neighbouring basin, by the countries in reaching their input ceilings for nitrogen and phosphorus, respectively. The application of the mechanism for reallocation of extra reduction should be described in the HELCOM Guideline].

Maximum Allowable Inputs and Nutrient Input Ceilings are based on the best available scientific information. As such, they are subject to review when new scientific knowledge is available. Targeted regional studies should be continued in a joint effort to improve the quality of the assessment data particularly on natural background losses, atmospheric deposition, retention, transboundary loads and other aspects.

Actions

To achieve the set objectives, the following actions will be taken:

Commented [SK43]: SE: Consider putting actions EE09, EE15, EE20 separate as they cannot be followed up/evaluated in the same way as other actions.

Code	Action
Provisional theme: Follow-up of the implementation of nutrient reduction requirements	
EE12	A detailed account listing planned and implemented measures in different sectors and catchments alongside an estimation of their effectiveness will be submitted to HELCOM by 2023 in order to demonstrate how National Net Nutrient Input Ceilings will be achieved
EE13	Assess progress towards Maximum Allowable Inputs annually and National Input Ceilings every second year, to follow up implementation of regional and national targets for inputs of nutrients.
EE14	Provide timely sufficient and consistent data on nutrient loads to the Baltic Sea, ensuring reliability of the follow-up system, by maintaining and enhancing monitoring programmes and networks striving for harmonized methods to estimate nutrient inputs, including from unmonitored areas.
EE09	Strengthen cooperation with river basin management authorities of non-HELCOM countries through official agreements addressing transboundary waterborne nutrient inputs from non-Contracting Parties (Provisionally agreed by HELCOM 42-2021)

Code	Actions
Provisional theme: Agriculture	
EE03	Implement and enforce the provisions of part 2 of Annex III "Prevention of pollution from agriculture" of the 1992 Helsinki Convention (Provisionally agreed by HELCOM 42-2021)
EN01	Establish site specific buffer zones to reduce nutrient losses from agricultural land, for example on parts of fields where surface runoff and erosion occurs, along ditches or at surface water inlets (Provisionally agreed by HELCOM 42-2021)
EN02	Balance fertilization rates site specifically and promote precision fertilization practices to improve nutrient use efficiency and reduce nutrient losses
EN03	Develop and apply the best practices to improve soil structure and aggregate stability on clay soils to reduce phosphorus losses from agricultural lands, for example by using soil structure lime or gypsum (Provisionally agreed by HELCOM 42-2021)
EN04	Promote organic farming to increase its proportion to at least 25% of agricultural land by [2030].
EN05	Discourage application of manure and other organic fertilizers in the autumn at fields without green plant cover in winter
EN06	Improve knowledge exchange by establishing dialog between farmers, authorities and decision makers (Provisionally agreed by HELCOM 42-2021)
EN07	Enhance mutual learning among farmers on best practices and innovative technologies (Provisionally agreed by HELCOM 42-2021)
EN08	Develop recommendations for BAT/BEP to reduce ammonia and GHG emissions from livestock housing, manure storage and spreading
EN09	Develop recommendations for manure management specifically for horses, sheep, goats, and fur farming

EE01	Apply as a minimum the updated EU's BREF document and Conclusions on BAT for intensive rearing of poultry and pigs, especially for the facilities located within areas critical to nutrient losses (Provisionally agreed by HELCOM 42-2021)
EE02	Review national regulation and voluntary measures and – if relevant – implement further or revised measures, as compiled in the revised palette of measures for reducing phosphorus and nitrogen losses from agriculture (Provisionally agreed by HELCOM 42-2021)
EE04	Agreement on national level by 2023 on measures to reduce nutrient surplus in fertilization practices to reduce nutrient losses (Provisionally agreed by HELCOM 42-2021)
EE05	Investigate opportunities for taxation of mineral fertiliser and/or taxation of nitrogen surplus and/or payments for agri-environment measures [by 2024], and implement them building on the experiences available in various countries. (Provisionally agreed by HELCOM 42-2021)
EE06	Apply innovative water management measures where appropriate, for example, lime filter ditches, sediment traps and controlled drainage, and nature-based solutions, such as two-level ditches and constructed wetlands, when upgrading and renovating agricultural drainage systems (Provisionally agreed by HELCOM 42-2021)

Code	**Actions**
Provisional theme: Atmospheric nitrogen emissions	
EE15	HELCOM Contracting Parties will continue to reduce the deposition of atmospheric nitrogen on the Baltic Sea through the implementation of the national nitrogen reduction commitments of the Gothenburg Protocol and the EU NEC-Directive 2016/2284 for those HELCOM CPs that are also EU Member States. HELCOM CPs will ensure that measures taken in transportation, combustion and agriculture are tailored to contribute to the reduction of the nitrogen deposition on the Baltic Sea. (Provisionally agreed by HELCOM 42-2021)
EE16	Revise the HELCOM Recommendation 24/3 on "Measures aimed at the reduction of emissions and discharges from agriculture" ensuring reduction of agricultural ammonia emissions and considering relevant BAT and BEP (Provisionally agreed by HELCOM 42-2021)
EE17	Enhance HELCOM cooperation with the UNECE Convention for Long-Range Transboundary Air Pollution in order to promote the inclusion of the protection of the Baltic Sea ecosystem as an additional criterion in the process of the revision of the emission targets for nitrogen in the Gothenburg Protocol. (Provisionally agreed by HELCOM 42-2021)

Code	**Actions**
Provisional theme: Nutrient recycling	
EN11/ EE08	Implement adequate measures, especially in agriculture and wastewater management, to achieve the objectives of the Baltic Sea Regional Nutrient Recycling Strategy
EE07/ EN10a/ EN10b	Develop legal and institutional tools to advance towards making annual field-level fertilization planning and farm-gate nutrient balancing for nitrogen (N) and phosphorus (P) a requirement for all farms in the Baltic Sea Region to prevent nutrient surplus on farmlands.
EN12	Enhance the use of recycled nutrients in agriculture making use of best available technologies and fertilize according to crop needs
EN13	Develop safety standards for recycled fertilizer products and minimise the occurrence of harmful compounds in these products to comply with the standards
EN14	Increase the knowledge and promote education and advisory services on nutrient recycling
EN15/ EN17	Create a market for recycled fertilizer products to support their production and use by setting incentives and making their use equally attractive to farmers as the use of mineral fertilizers
EN16	Enhance cooperation and share experiences between sectors and actors to create a holistic view on sustainable food systems including nutrient recycling across sectors

Code	**Actions**
Provisional theme: Waste water sector	
EN18	Strengthening of HELCOM Recommendation 28E/5 on MUNICIPAL WASTEWATER TREATMENT (Provisionally agreed by HELCOM 42-2021)

EE18	Facilitate exchange of information on best available treatment techniques (WWTP) through cooperation with existing regional digital platform(s) acting as a hub for the best knowledge in the wastewater management sector (Provisionally agreed by HELCOM 42-2021)
EE19	Encourage educational cooperation with involvement of relevant non-governmental organizations utilizing such regional digital platform(s) to solve problems of municipal sewage in smaller municipalities and scattered settlements (Provisionally agreed by HELCOM 42-2021)
EE20	Cooperate with relevant PAs of the EU SBSR regarding e.g. wastewater treatment plants (under "save the sea" objective of the EUSBSR) as well as other regional policies to engage a wider network of stakeholders into cooperation to achieve the BSAP targets.
EE21	Target the elimination of phosphorus in laundry detergents for consumer use as soon as possible, but not later than by [20XX]
EE22	Build knowledge base to target the reduction of phosphorus in detergents for industrial & institutional use. By 2025, develop and publish a HELCOM progress report about best available techniques, alternative builder, especially on their use, environmental effects and effectiveness. (Provisionally agreed by HELCOM 42-2021)
EE23	Undertake efforts to reduce and where possible eliminate phosphorus in detergents for industrial & institutional use, in particular for institutional use of laundry and dishwater detergents [no later than by 2030] based on the knowledge on best available techniques compiled at the first step

Hazardous substances and litter segment - A Baltic Sea unaffected by hazardous substances and litter

Visualizations/text boxes to be added to include the following information:

Goal: Baltic Sea unaffected by hazardous substances and litter

Links to climate change *(from the Climate Change Fact Sheet, to be reviewed)*
Direct effects:
Precipitation
River run off

SDG targets addressed:
14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

Pressures addressed (*to be added)*:

Activities addressed (*to be added)*;

Cross reference with other segments:
- Reaching the objectives for hazardous substances and litter is a necessity to meet the goal of a 'Baltic Sea ecosystem is healthy and resilient';
- Reaching the goal for sea-based activities is a requirement for reaching the goal for hazardous substances and litter.

Description of current state

Hazardous substances

Based on indicators representing selected heavy metals, organic contaminants and radioactive substances, the Baltic Sea remains heavily impacted by hazardous substances. They are cause for concern in all parts of the Baltic Sea, in particular, levels remain too high in the assessed biota for PBDEs, mercury and cesium-137. Contaminants of emerging concern, such as some pharmaceuticals, were also observed in almost all compounds of the marine environment. Nonetheless, scarcity of data on contaminants of emerging concern as well as on some substances already used as indicators and their inputs to the marine environment does not allow obtaining of a comprehensive picture of the contamination of the Baltic Sea.

Hazardous substances originat~~e~~ing from a wide range of human activities on land and at sea. Thousands of chemicals and synthetic materials are used in households. Sewage treatment systems are their primary pathways to the aquatic environment. Urban storm water and agricultural run-off also contribute to the overall contamination of the Baltic Sea. Industries use chemical compounds in technological processes or as a raw material and their emission through air or water pose a certain environmental risk. A large group of hazardous substances are by-products of the combustion of fossil fuels, wood or wastes as well as fuels used in various types of transport. Many compounds are highly volatile and can be transported in air for long distances, and thereby contributing to the contamination of the Baltic Sea marine environment, even being prohibited in the region. Finally, offshore sources of pollution include for example the leaching of chemicals from antifouling paints, discharge of polluted water from ships, aquaculture and off-shore installations, as well as accidental or intentional oil spills.

Commented [LMS44]: DK

Commented [LMS45]: DK

Inputs to the Baltic Sea are decreasing for many substances, and some of the most toxic compounds are banned today. However, several persistent legacy contaminants remain in sediments and can be resuspended and enter the food webs in the marine ecosystem as a result of dredging processes, depositing of contaminated sediments at sea. Dumped chemical and conventional munition remains buried on the sea floor. And new chemicals with unknown effects and unquantified inputs are being used and released into the aquatic environment.

Marine litter

Marine litter, including microlitter, originates from various land- and sea-based sources. Among land-based sources, recreational or tourism activities, especially on the seashore, together with construction and household-related waste, are the major contributors to littering of the sea. Micro litter including microplastics is primarily released in the aquatic environment with sewage waters, untreated or insufficiently treated storm waters and water from snow melting. It might also originate from disintegration of plastic litter items in the environment.

Ship traffic, fisheries, aquaculture and offshore installations are sources of litter at sea, for example, in case of accidental or intentional discharges of waste from shipping or pleasure vessels. Abandoned, lost or otherwise discarded fishing gear is the type of litter posing one of the major threats to marine life.

Marine litter is so far only assessed descriptively at the Baltic Sea scale, as monitoring of marine litter is currently under development. However, beach data series already allow for the establishment of a baseline. Most of the litter items found on beaches consist of plastics with most items being single-use and attributed to eating, drinking, smoking, or industrial packaging. It is noteworthy that balloons or balloon-related items are found among the top ten items in several sub-basins. At sea, abandoned lost and discarded fishing gear constitute a severe threat to marine life. The problem is relevant to the entire region, though its magnitude depends mainly on the bottom morphology and the intensity of fisheries.

Connection to other treaties

Cooperation in the framework of HELCOM provides and enhances opportunities for synergies in national efforts in relation to various polices and treaties. Central directives and in relation to this segment are the EU Single Use Plastic Directive, EU Marine Strategy Framework Directive, EU Water Framework Directive, EU Urban Wastewater Treatment Directive, EU Sewage Sludge Directive, EU Industrial Emissions Directive, among others, and the recently communicated European Green Deal, as well as the Water Code and Law on Environment protection of the Russian Federation. Key global treaties are those concluded under the IMO, the Minamata, Basel, Rotterdam, Stockholm Conventions, the Convention on the Protection and Use of Transboundary Watercourses and International Lakes.

Description of desired state

Hazardous substances

The desired state of the Baltic Sea regarding hazardous substances is described by the ecological objectives:

- Concentrations of hazardous substances are close to natural levels
- All sea food is safe to eat
- Marine life is healthy
- Minimal risk to humans and the environment from radioactivity.

A number of actions have already been agreed (existing actions) and new actions are being proposed to achieve the management objective. The actions can be distinguished by legacy pollutants, which HELCOM already addresses such as heavy metals, dioxins etc., and actions on contaminants of emerging concern such as PFAS and pharmaceuticals. Since the topic of hazardous substances covers a large variety of substances, sources and pathways.

Commented [LMS46]: DK: something is missing in the sentence?

Commented [LMS47]: Suggest to delete. Propose to replace with short factuel text (a few sentences), which elaborates a little further on the ecological objectives. As is done under the biodiversity segment.

Marine Litter

The desired state of the Baltic Sea regarding marine litter is described by the ecological objective - no harm to marine life from litter.

As a result of implementation of all necessary regional measures, the litter on beaches and at sea as well as micro-particles are at levels which does not harm marine environment. Active cooperation between regional sea conventions and global treaties is set to engage third parties beyond the region. Litter collected on beaches and at sea is utilized in the most sustainable way applying best available technologies and environmental practices.

Commented [LMS48]: Suggest to delete and replace with short factuel text (a few sentences), which elaborates a little further on the ecological objective. As is done under the biodiversity segment.
In my oppinion the text as it stands now is confusing as it for a new reader could be misinterpreted as what we do today/have done. It is also confusing (for me) that there is a focus on actions and not on state (desired state)?

Reaching desired state: management objectives

Hazardous substances.

In order to reach this desired state, the management objective - to minimize input and impact of hazardous substances from human activities – was identified.

HELCOM acts as a coordinator of joint effort of Contracting Parties to identify priority contaminants, quantify their inputs and regional sources and develop effective national or regional measures based on such information. Recurrent screening of contaminants in the marine environment as well as their potential sources and pathways is one of the tools to identify emerging contaminants of concern. The data obtained through the screening in combination with the information on substances used in industrial processes and consumption products create a basis for transformation of indicator-based evaluation to a more flexible status evaluation. This information enables mechanisms for regular update of the regional priority contaminants, monitoring and assessment targets, and taking a holistic approach that considers time trends in inputs to the sea and ecotoxicological effects with a clear link to the total load of contaminants. Such holistic approach strengthens the management cycle, enabling the follow-up of measures, assessment of their effects and tailoring these measures to target specific contaminants and their groups. HELCOM commits to develop an action plan for hazardous substances as a part of the regional strategic approach to strengthen management cycle for hazardous substances and liaise with relevant regional and global policies.

Marine litter

In order to reach the desired state the following management objectives have been identified for marine litter:

- Prevent generation of waste and its input to the sea, including microplastics;
- Significantly reduce amounts of litter on shorelines in the sea.

The HELCOM Regional Action Plan on Marine Litter is the main regional tool to achieve the marine litter ecological and managerial objectives. This ensures that there are measures in place to address the most common and harmful litter items found in the Baltic Sea region by:

- reducing the impact of abandoned, lost or otherwise discarded fishing gear (ALDFG) on the marine ecosystem in a systematic way by developing HELCOM guidelines and recommendations,
- significantly reduce the consumption of single use plastics including phase out of unnecessary single use plastics which is prone to become litter,
- preventing littering from all sources,
- minimizing inputs of microplastics through measures both at source and end-of-pipe solutions,
- being aware of new and emerging issues related to marine litter generation and act if needed and
- promote and actively work for a global agreement to reduce input of marine litter and microplastics.

Regional threshold for beach litter, litter on the sea floor and microlitter should be set to assess progress towards achieving good environmental status for marine litter and applying them as the basis for setting

Commented [LMS49]: DK

environmental targets. The assessment of progress towards these environmental targets should be based on monitoring on monitoring programmed utilizing regionally harmonized methodologies. Available knowledge has improved since the first Action Plan on Marine Litter was adopted but further scientific and technological development is vital for achieving the BSAP objectives, especially with regard to microlitter.

Actions

To achieve the set objectives, the following actions will be taken:

Code	Actions
Provisional theme: Hazardous substances	
HLN06	Develop a [regional strategic approach][regional action plan] to HELCOM work on hazardous substances by [2024] (Provisionally agreed by HELCOM 42-2021)
HLE04	Develop national programmes with a particular focus on hazardous substances which are not adequately regulated by other policies
HLE05	Submit to HELCOM by [2023] a detailed account list of planned and implemented measures, including examples of best practices for different sectors, pathways and geographical areas in order to share practical information
HLN04	Strengthening and updating HELCOM recommendations for industrial releases of hazardous substances by applying information produced under the EU Industrial Emissions Directive and other sources in order to sufficiently protect the Baltic Sea environment
HLN05	Decreasing the emissions of hazardous substances from small scale emitters in urban areas (municipal entities, businesses and private households) by chemical-smart purchasing strategies, substitution and awareness raising campaigns (Provisionally agreed by HELCOM 42-2021)
HLE12	Establishment of chemical product registers to be built upon e.g. the EU REACH (EC1907/2006) framework
HLE14/ HLE13	Launch educational and information campaigns to raise public awareness regarding responsible handling of hazardous substances in household chemicals and articles to prevent their release into the environment.
HLE15	Introduce requirements regarding content of chemicals of high regional environmental concern in public procurement procedures and provide support for follow up.
HLE16	Establish procedures to utilize information obtained under various policies addressing the use of chemicals (e.g. REACH, WFD, IED, Stockholm Convention etc) to prioritize measures targeting regional contaminants and to identify emerging pollutants of high concern.
HLE18	Establish a mechanism for HELCOM to manage the list of priority substances [starting from20XX] and respond to screening and assessment results pointing out regional challenges for the Baltic Sea environment and contaminants of emerging concern
HLE19	Organize continuous follow up of the work on hazardous substances under various global and EU policies as well as in RSCs, and actively influence these processes by promoting international actions identified as necessary to improve the environmental status with respect to hazardous substances in the Baltic Sea.
HLE20	HELCOM participation as member in Strategic Approach on [International Chemicals Management High Ambition Alliance (SAICM HAA)] to support international cooperation on global chemical challenges that influence the state of the Baltic Sea. Identification of global challenges that are of importance for the Baltic Sea that HELCOM will put on the [SAICM HAA] agenda.
HLE21	By [XXXX] develop further relevant monitoring for the biological effects of hazardous substances and, as needed, pathogens on animal health, in order to facilitate a reliable ecosystem health assessment
Provisional topic: Legacy pollutants	
HLN01	Encourage the use of alternative metals to replace lead in fishing gear and shooting bullets with the aim to minimize harmful use of metallic lead.
HLE02	In order to decrease dioxin emissions, perform information campaigns and other instruments that focus on the quality and species of the firewood, and what is burned in the small-scale combustion appliances
HLE06	Ratification of the UNEP 2013 Minamata Convention on Mercury

HLE07	Enhance implementation of the UNEP 2013 Minamata Convention on Mercury
HLE08	Undertake all possible measures to reduce mercury emissions from energy sector
HLE09	Control concentration of mercury in dredged material and undertake possible measures to prevent its release during dredging operations and handling of dredged material
HLE10	Introduce the ban of the use of mercury-based amalgam in dentistry by [2030], except when deemed strictly necessary
HLE11	Establish and maintain procedures (rules) to handle mercury containing wastes to prevent entering of the contaminant to the environment, including public information on the procedures (rules)
HLE17	Introduce measures based on the best available scientific knowledge and technologies to restrict the use and prevent releases of perfluorinated alkyl substances, phenolic compounds with endocrine disrupting effects and chlorinated paraffins
Provisional topic: Contaminants of emerging concern	
HLN09	Improve knowledge base on occurrence of pharmaceutical substances in the environment, their persistence and harmful effects and assure availability of this information for broad expert community
HLE01/ HLN03	Identify priority pharmaceuticals utilising the best available knowledge on their releases into the aquatic environment, environmental effects and data on the use in the region for efficient risk reduction and for subsequent integration of these substances to HELCOM assessments as indicators of the state of the Baltic sea and environmental pressure.
HLN10	Develop guidance for the environmental monitoring and analysis of pharmaceuticals identified as indicators of the state of the Baltic Sea
HLN12	Information campaign on what not to flush (addressing chemicals, pharmaceuticals and litter) (Provisionally agreed by HELCOM 42-2021)
HLN13	Strengthening collection of unused pharmaceuticals from public in the Baltic Sea region
HLN02	In cooperation with health care institutions, increase awareness and knowledge of consumers about pharmaceuticals containing substances that are persistent and harmful for the environment and, thus, foster their responsible consumption.
HLE03	Address substances of emerging concern by commencing recurrent screening campaigns [starting from 2021] including broad analytical techniques such as suspect screening and non-target screening methods.
HLN08	Limit the use of firefighting foam containing PFAS at sea and in the catchment area and promote sustainable alternatives (Provisionally agreed by HELCOM 42-2021)
HLN07/ HLN11	Minimise the release of biocides from antifouling products to the marine environment, and [by 20xx] replace use of biocidal antifouling products with biocide free alternatives when available and technically feasible

Commented [LMS50]: DK suggest that this action is placed under the topic 'hazardous substances' and not 'contaminants of emerging concern'. The main substances that will be covered with this action is copper, zinc and TBT.

Code	**Actions**
Provisional theme: Marine litter	
HLE22	Improve the evidence base on the impact of marine litter on the Baltic Sea region in order to develop and agree on new measures [by 2025]
HLE24/ HLE23	Agree on core indicators and harmonised monitoring methods to evaluate quantities, composition, distribution and sources (including riverine input), of marine litter, including microlitter, by [2022], where applicable and for the rest no later than [2026]. Work should be done in close coordination with work undertaken by Contracting Parties in other relevant fora.

Sea-based activities segment - Environmentally sustainable sea-based activities

Visualization/text box to be added to include the following information:

Goal: Environmentally sustainable sea-based activities

Links to climate change *(from the Climate Change Fact Sheet, to be reviewed)*
Direct effects:
Air temperature
Water temperature
Sea ice
Solar radiation and cloudiness
Salinity
Precipitation
Oxygen
Sea level
Wind
Waves
Sediment transportation and erosion

Indirect impacts:
Shipping
Tourism
Coastal protection
Fisheries
Aquaculture
Offshore wind farms
Non-indigenous species
Coastal and migratory fish
Pelagic and demersal fish
Marine mammals
Waterbirds
Benthic habitats

SDG targets addressed (to be completed)
- 12
- 13
- 14
- [15.8]

Pressures addressed *(to be reviewed based on actions)*:
- Input of nutrients;
- Input of hazardous substances;
- Input of marine litter;
- Loss and disturbance to the seabed;
- Disturbance of species;
- Extraction and mortality of species (e.g. extraction of target species, incidental catches);
- Introduction of non-indigenous species;
- Introduction of underwater noise.

Tentative activities addressed by HELCOM actions *(to be reviewed based on actions)*:

- Shipping (e.g. transport and transport infrastructure);
- Production and transport of energy (e.g. operational wind farms, transmission cables);
- Tourism and leisure infrastructure and activities;
- Extraction of living resources (e.g. fishing, hunting, marine plant extraction);
- Extraction of non-living resources (e.g. mineral extraction, oil and gas extraction);
- Restructuring of coastline and seabed morphology (e.g. dredging);
- Aquaculture, marine (including infrastructure).

Cross reference with other segments:

- Reaching objectives for sea-based activities is a necessity to meet the goal of a 'Baltic Sea ecosystem is healthy and resilient';
- Reaching the goal for sea-based activities is a requirement for reaching the goal for eutrophication and hazardous substances and litter.

Commented [SK51]: Proposal by CCB and WWF to add "Building of infrastructure and other industry (e.g. building of offshore wind parks, pipelines);" and "Incidental bycatch"

Note by the Secretariat: The WGs are currently linking the actions to relevant activities and pressures after which it will be checked which activities are relevant for this section.

Description of current state

Sustainable management of sea-based activities is essential for achieving good environmental status of the Baltic Sea. Sea-based activities comprise all human operations and constructions at sea, from commercial shipping and recreational boating, construction work and dredging, energy production to fisheries and the extraction of minerals, oil and gas. Achieving the overall strategic goal of the segment thus requires cooperation on a wide range of topics and involves several objectives and actors.

Emissions and discharges from shipping continue to have harmful impacts on the Baltic Sea environment, despite the reinforced international regulations concerning maritime traffic. Energy efficiency of ships is improving, and a downward trend is also evident for other types of emissions and discharges. Nevertheless, shipping still contributes to significant amounts of nitrogen oxides, sulphur oxides and particulate matter to the Baltic Sea, leading to pollution and eutrophication of the marine environment. Further, shipping causes adverse environmental effects from inter alia underwater noise, biofouling, scrubber discharges and grey water discharges which are not yet covered by mandatory international regulations.

Commented [LMS52]: DK

Oil spills observed by aerial surveillance have been decreasing in both numbers and size, and while preparedness and response to spills of oil and hazardous noxious substances at sea and on shore is rather advanced in the Baltic Sea, there is still a need for improvement. Annual reports show an increasing number of spills of unidentified chemical substances and novel fuel types, for which response options need to be developed, in particular considering the increasing likelihood of accidents as a result of increased traffic and extreme weather conditions due to climate change.

Fishing takes place in large areas in the Baltic Sea, with direct effects on target species as well as on protected species and habitats. Currently, the majority of Baltic Sea fish stocks are not in good status with respect to biomass and fishing mortality. Physical disturbance to the seabed from bottom trawling and bycatches of birds, marine mammals and non-target fish species in fishing gear constitute other pressures on the ecosystem, which need to be reduced. Further, intensive fishing results in shifts in the food web, alterations in size-age distribution, as well as reductions in reproductive capacity and resilience of both fish and other marine organisms.

In addition to shipping and fishing, direct activities such as mineral extraction, dredging, installation of offshore wind farms, other forms of marine energy production, and laying of underwater cables and pipelines have negative effects on the marine environment, including physical disturbance and loss of the seabed. As a result of these multiple activities, about 40% of the Baltic Sea seabed is estimated as potentially disturbed,

with many underwater biotopes and species in unfavourable conservation status. Together with submerged hazardous objects (sea-dumped munitions, warfare materials and wrecks containing oil), activities causing disturbance to the seabed contribute to the potential release of harmful substances that may affect the marine environment and activities in the Baltic Sea. Submerged hazardous objects besides being sources of pollution also pose physical obstacles on the seafloor and a risk factor for maritime workers. The above mentioned activities, including the operation of offshore windfarms and aquaculture facilities, also affect organisms through the effects of noise and may cause hazards and disturbance to sea birds and other marine life.

Although there has been significant progress in many areas of sea-based activities, it is clear that further actions are needed. The expansion of sea-based activities through emerging maritime sectors further results in several pressures for which regulatory frameworks are either nascent or not in place. The cumulative effects of existing and new sea-based activities need to be evaluated, and an ecosystem-based approach implemented, where the carrying capacity of the ecosystem, and the need to set limits for human activities, is acknowledged.

Connection to other treaties

Relevant treaties to be reflected in bullet form (e.g. Various IMO conventions, MSFD, CFP, ASCOBANS/CMS, WTO, CBD, EU Biodiversity Strategy, OSPAR, NASCO etc.)

Commented [LMS53]: DK: Bonn agreement

National and regional recommendations and regulations developed within HELCOM are important in complementing the international regulatory frameworks.

Description of desired state

The desired state of the Baltic Sea regarding sustainable and safe sea-based activities is described by the ecological objectives:

Commented [MH54]: DG BSAP SEA 3-2021 proposed that safety should also be mentioned.

- No or minimal disturbance to biodiversity and ecosystem
- Activities affecting seabed habitats do not threaten the viability of species' populations and communities
- No [or minimal] harm to marine life from manmade noise
-

Commented [SK55]: CCB and WWF: The "desired state" should be "no harm". It is the goal that we thrive for and should not be watered down at this stage.

Commented [MH56]: DG BSAP SEA 3-2021 noted a proposal to include "quiet areas" as an ecological objective

In order to reach this desired state, the following management objectives are to be met:

- Minimize loss and disturbance to seabed habitats
- Minimize noise to [acceptable] levels that do not ~~adversely~~ [seriously] affect marine life
- No introductions of non-indigenous species
- Minimize the contribution to eutrophication and to pollution ~~[the input of]~~by hazardous substances and litter

Commented [SK57]: CCB and WWF: acceptable for whom?

Commented [SK58]: CCB and WWF: Either formulate as "do not adversely affect" or as "do not harm".

Alternative proposals for the above objective, as provided at and after HELCOM 42-2021:

[Minimize the contribution to eutrophication and pollution by hazardous substances and litter

/Minimize the causes of eutrophication and (input of) hazardous substances and litter

/Minimize the contribution to eutrophication and to the level of hazardous substances and marine litter

/Minimize the input of nutrients, hazardous substances and littering of the marine environment from sea-based human activities.

/Minimize the input of nutrients, hazardous substances and litter]

- Enforce international regulations – no illegal discharges
- Safe maritime traffic without accidental pollution
- Effective emergency and response capabilities
- Minimize harmful air emissions
- Zero discharges from offshore platforms
- Ensure sustainable use of the marine resources
-

Commented [MH59]: The Meeting noted a proposal on including a by-catch related action, noting that several actions under this segment address by-catch. In this context it was, however, noted that a related objective is included under the Biodiversity segment of the draft updated BSAP.

Implementing the actions of the sea-based activities segment is one of the key factors for enabling the vision of the Baltic Sea Action Plan to reach a healthy Baltic Sea environment, and for supporting a wide range of activities in the Baltic Sea region that does not compromise ecological, societal, and long-term economic sustainability. HELCOM has the ambition to work continuously for the Baltic Sea to be a forerunner in the field of environmentally sustainable sea-based activities, including shipping, fisheries, offshore wind farms and infrastructure. HELCOM recognises the need for significant expansion of offshore wind energy to reach the climate targets for 2030 and 2050, and acknowledges the need to put further emphasis on co-existence between offshore wind and biodiversity. Apart from implementing the actions set out in the Baltic Sea Action Plan, this will also require implementation of inter alia the Regional Action Plan on Underwater Noise and enforcement of applicable national, regional and international regulations in the field of sea-based activities , as well as active voluntary commitments by industry.

Commented [SK60]: DK comment

Actions

While the Baltic Sea Action Plan predominantly contains concrete measures and actions to be implemented by 2030 at the latest in order to fulfil its various objectives, there are also important actions focusing on close cooperation with other organizations and that are to be continuously implemented by HELCOM and its Contracting Parties.

Commented [SK61]: SE: Here we start by saying "these are not concrete measures/actions…." why placing them first is maybe not ideal. Needs discussed (DG BSAP?) where to put them, based on an analysis of how they will be implemented and followed up.
Otherwise good that the cooperation Actions are gathered separately from the concrete measures.

HELCOM continues the close cooperation with other organizations with the following actions:

Code	Actions
SE04	Further strengthen co-operation with IMO and regional co-operation in the field of safety of navigation in the framework of the HELCOM Maritime Group, as appropriate, in particular recognizing the need for the exchange of technical expertise regarding risk assessment to avoid shipping accidents in the Baltic Sea
SE05	Continue close technical cooperation with EMSA in collection and analysis of maritime data relevant for the development of safer shipping in the Baltic Sea, such as EMCIP and explore possibilities for future cooperation on the provision of data to EMSA, including on drug/alcohol abuse as a cause of accidents as well as data on linked environmental [impacts] [spills][accidental loss and spills]
SE08	Implementation of the Joint Harmonised Procedure for the Contracting Parties of OSPAR and HELCOM on the granting of exemptions under the BWM Convention, Regulation A-4, and keep the Ballast Water Risk Assessment Tool up to date with data from conducted port surveys (Provisionally agreed by HELCOM 42-2021)
SE10	Continue close cooperation with OSPAR on the implementation of the BWM Convention and the issue of biofouling management at the regional and inter-regional level (Provisionally agreed by HELCOM 42-2021)

To achieve the set objectives, the following actions will be taken:

Code	Actions
Provisional theme: Maritime activities	
Provisional topic: Discharges from offshore platforms	
SE01	Update the Action Plan for the protection of the environment from offshore platforms to put into practice the "zero-discharge" principle in respect of all chemicals and substances used and produced during the operation of offshore platforms by [2026].
Provisional topic: Maritime safety	
SN01/SE03	Ensure the completion of the re-surveys for near shore areas and other areas used typically for safe boating, environmental protection, GIS data purposes and oil recovery contingency (also called CAT III areas), by the time specified in the revised BSHC HELCOM Re-Survey Scheme.
SE02	Take actions to ensure the completion of the re-surveys for Cat. I and II areas used by navigation by 2030 at the latest. (Provisionally agreed by HELCOM 42-2021)
SE06	Further work with regard to the regional HELCOM AIS system and also new systems such as VDES and other e-navigation services in order to increase safety of navigation and gain environmental benefits (Provisionally agreed by HELCOM 42-2021)
Provisional topic: Non-indigenous species	
SN02a/ SN02b	Work for the harmonized implementation of the International Maritime Organization (IMO) Biofouling Guidelines and Guidance, taking into account e.g. the proposed Biofouling Management Roadmap, and further contribute to the work carried out in the IMO. (Provisionally agreed by HELCOM 42-2021)
SE07	Establishment [by 2024] and subsequent implementation of the early warning system in case of the introduction of invasive species in ports. (Provisionally agreed by HELCOM 42-2021)
SE09	Promote the development and use of effective, environmentally sustainable biofouling management techniques and antifouling systems on ships and recreational craft, including biocide-free alternatives to prevent biofouling by supporting related R&D activities in the Baltic Sea region
SE11	Strengthen cooperation with stakeholders in the development and implementation of sustainable biofouling management options to minimize the introduction of invasive aquatic species, the release of hazardous substances and microplastics from anti-fouling systems, as well as enhancing energy efficiency
Provisional topic: Recreational boating	
SE16	Promote environmentally sustainable recreational boating, including the use of best environmental practices through education and raising awareness of boat users and the personnel of marinas and guest harbours. Promote also "green" marinas and guest harbours by e.g. introducing eco-labelling of marinas and developing guidance and best practice documents as a help for the marinas to reach criteria
Provisional topic: Pollution from ships	
SN03/SN04	Carry out a study and impact assessment, assessing the possible ways for cargo ships to deliver sewage to port reception facilities (PRF) or take treatment measures, using onboard treatment plants, before discharging it into the sea. Based on the results, take relevant action in making a decision on whether to widen the scope of the Baltic Sea Special Area regulations under MARPOL Annex IV to cover also sewage discharges from cargo ships. (Provisionally agreed by HELCOM 42-2021)
SN05/SN06	Carry out study and impact assessment, assessing the volume and potential harmful effects of grey water and the possibilities for ships to deliver it to port reception facilities or take treatment measures using onboard treatment plants, before discharging it into the sea. Based on the results, take relevant action in making a decision on whether and how to manage grey water discharges from ships. (Provisionally agreed by HELCOM 42-2021)
SN07	Develop a Roadmap to reduce the input of pollutants from Exhaust Gas Cleaning System discharge waters, as a minimum in line with existing legislation, taking into consideration the precautionary principle and the outcome of IMO work.

Code	Actions
SN08	Enhancing the use of alternative fuels and sources of energy in shipping as well as recreational boating as well as enhancing the use of digitalization and other innovations in technology to optimize energy efficiency in the Baltic Sea area with the view to reduce emissions of both GHG and air pollutants
SN09	Actively follow and contribute to the discussions at IMO on GHG emission reduction and ensure that ice navigation and its special requirements are taken duly into account. Ensure, through the work of HELCOM Green Team, that shipping in the Baltic Sea area meets targets of the IMO GHG strategy while at the same not impairing efforts on reducing air pollution or other environmental effects
SN10	Ensure the no-special-fee system for marine litter applies to all passively fished waste (Provisionally agreed by HELCOM 42-2021)
SN11/SN12	Carry out a study and impact assessment to estimate and evaluate the volumes and impact of discharges of residues of noxious liquid substances contained in cargo tank washing waters under MARPOL Annex II into the Baltic Sea. Based on the results, take relevant action on whether and how to further limit discharges of residues of noxious liquid substances contained in cargo tank washing waters under MARPOL Annex II into the Baltic Sea. (Provisionally agreed by HELCOM 42-2021)
SN13	Study the adequacy and use of port reception facilities (PRF) for MARPOL Annex V cargo residues and, based on this information, ensure adequate PRFs in Baltic Sea ports for cargo residues classified as non-HME substances under MARPOL Annex V and further ensure incentives for ships to use them. (Provisionally agreed by HELCOM 42-2021)
SN14/SN15	Develop and adopt a HELCOM Recommendation to encourage voluntary agreements on delivering all food waste from ships to port reception facilities. Develop a Roadmap to minimize the discharges of food waste into the Baltic Sea
SN16	Development and introduction of best technologies, techniques and practices (BAT/BEP) to minimize nutrient losses from dry bulk fertilizer storage and handling in ports in the Baltic Sea region. (Provisionally agreed by HELCOM 42-2021)
SN17	Work towards securing ship financing and innovation funding and to ensure maritime transport components in applicable funding mechanisms
SN18	Enable onshore power in the Baltic Sea region by promoting onshore power supply availability and ensuring initial economic incentives for the use and supply of onshore power.
SE12	Develop and facilitate implementation of feasible and effective economic incentives to reduce pollution from ships, taking into account HELCOM Recommendation 28E/13 as amended 19 June 2019 (Provisionally agreed by HELCOM 42-2021)
SE13	Develop a Roadmap to strengthen the implementation and enforcement of the Baltic Sea NOx Emission Control area by [2023] based on experience and lessons learned. The roadmap should also include monitoring of NOx reduction and linked evolution of air pollution and sea eutrophication in the area as of 2025.
SE14	Enforce the requirements of the Baltic Sea Special Area under MARPOL Annex IV and continuously ensure the availability of adequate port reception facilities in passenger ports in the Baltic Sea Area taking into account the "Technical Guidance for the handling of wastewater in Ports of the Baltic Sea Special Area under MARPOL Annex IV" (Provisionally agreed by HELCOM 42-2021)
SE15	Continue the dialogue established by the Baltic Sea Platform for Green Technology and Alternative fuels in shipping (HELCOM GREEN TEAM) and work jointly in co-operation with other regional governmental and non-governmental organizations, the industry and research community, to further promote development and use of green technologies and alternative fuels, in order to reduce harmful exhaust gas emissions and to strive for clean and low-carbon shipping (Provisionally agreed by HELCOM 42-2021)

Code	Actions
Provisional theme: Response	
SN19/SN20/ SE17/SN18	Further develop regional preparedness and response related services by e.g. investigating options for upgrading SeaTrack Web to include live data feed in order to improve oil spill trajectory

	prognoses no later than by [2027]. Investigate options to prepare SeaTrack Web for integration with the Clean Sea Net satellite detection service. (Provisionally agreed by HELCOM 42-2021)
SN21	Development of Best Environmental Practice (BEP) for comprehensive risk assessment of munitions, wrecks and hazardous submerged objects and implementation of Best Available Techniques (BAT) for environmentally sound and safe management.
SN22	Conduct a feasibility study for, and as appropriate, undertake a risk analysis for oil and HNS pollution of the marine environment in the Baltic Sea area. (Provisionally agreed by HELCOM 42-2021)
SN23	Develop a framework for holistic/integrated management of marine pollution incidents to enable coordinated response operation at sea and on shore. (Provisionally agreed by HELCOM 42-2021)
SN24	Undertake monitoring and pollution risk assessment regarding species and habitats in the Baltic Region. (Provisionally agreed by HELCOM 42-2021)
SN25	Strengthening mutual assistance for oiled wildlife response in the Baltic Region. (Provisionally agreed by HELCOM 42-2021)
SE19/SE20	Maintain the HELCOM thematic assessment on hazardous submerged objects as a living document, including munitions and wrecks, as a living document and regularly update the information in the HELCOM Map and Data System.
SE21	Implement the Joint Inter-Regional Marine HNS Response Manual in operational response to spills involving hazardous or noxious substances as well as exercises by 2025 (Provisionally agreed by HELCOM 42-2021)
SE22	Commit to testing the procedures of the Joint Inter-Regional Marine HNS Response Manual at [BALEX 2022]. (Provisionally agreed by HELCOM 42-2021)

Code	**Actions**
Provisional theme: Underwater noise	
SE24/SN26	Identify and implement mitigation measures according to existing Best Environmental Practice and Best Available Technique for continuous and impulsive noise in the Baltic Sea as soon as they become available, but at the latest by [2023]
SN27	Actively support and contribute to the ongoing discussions on underwater noise at IMO by i.a. working towards regionally coordinated actions.
SN28	Work towards regionally coordinated actions on underwater noise, aiming in the long term towards addressing adverse effects of underwater noise on marine species identified as sensitive to noise, whilst safeguarding the potential of the Baltic Sea for sustainable human activities by: a) Supporting a swift implementation of the Regional Action Plan on Underwater Noise .b) Initiating and supporting pilot projects to study efficacy of vessel slow down, re-routeing and other operational measures, on noise emissions and responses of target species by the end of [20XX]. Results are to be communicated to IMO for follow-up and further action. c) Mapping the contribution of recreational craft to the noise in the marine environment; supporting studies on efficiency of mitigation measures, such as speed limitations and time-area restrictions; and studies on impact from echo sounders and fish-finders. Based on available evidence and new results, developing guidelines for implementing regulation to reduce impact on sensitive species. Simultaneously developing common standards for underwater noise emissions of engines, echo-sounders and fish finders, which can be utilized in national regulation of activities in MPAs and other noise sensitive areas in the Baltic Sea.
SN29	Reducing the impact of impulsive underwater noise on marine biodiversity
SN30	Develop and implement guidelines for the design and use of acoustic deterrent devices to avoid detrimental impacts on the environment from underwater noise.

SE23	Develop and implement threshold values and assessment methods for adverse effect of impulsive and ambient noise for marine life, in cooperation with OSPAR, EU and other relevant expert groups, by [2023] at latest for marine mammals and by [2026] for other relevant species groups.
SE25	Implement regular and regional harmonized monitoring of ambient and impulsive noise [by 2023] to follow up effects of mitigation measures.

Code	**Actions**
Provisional theme: Fisheries management	
SN31	Further elaborate cooperation between BALTFISH and relevant HELCOM working groups to facilitate achieving of good environmental status [by supporting ecosystem-based sustainable fisheries.]
SE26	To update and harmonize the 2016 BALTFIMPA decision-support tool approach with ongoing initiatives e.g. in ICES on a seafloor assessment framework for the Baltic Sea. This tool should also provide options on how to reduce the possible negative impact of fisheries on conservation values in the most cost-effective way, including in marine protected areas (Provisionally agreed by HELCOM 42-2021)
SE27	Develop guidance in cooperation with the Regional Coordination Groups within the EU Data Collection Framework and ICES on how to improve data collected on recreational fisheries in a cost-effective way, with a view to evaluate the impacts of recreational fisheries on the marine environment, where there is a need. (Provisionally agreed by HELCOM 42-2021)
SE28	Utilise dedicated programmes and projects to facilitate recording and reporting of data from commercial and recreational fishermen [by 202X] on catch of non-target fish species to support the identification and [and implementation] of measures to achieve GES
Provisional topic: Fish stock management	
SN35	Implement measures to restore coastal fish communities, including establishment of no-take areas, seasonal closures and catch regulations, as appropriate for the specific coastal area (Provisionally agreed by HELCOM 42-2021)
SN36/SE34	Urge the EU to move forward with the new EU Baltic Sea salmon management plan based on the draft proposal by BALTFISH. In line with the new management plan, adopt national management plans as appropriate and implement them so that they reach set targets, including but not limited to smolt production, genetic diversity and distribution throughout the river habitat. In addition, nationally ensure that granting permits for activities in and near rivers does not compromise the ability to reach set river specific fish population targets
SE35	Competent authorities to improve data related to sea trout stocks with the view to establish and implement long-term national management plans for sea trout stocks at latest by 2025 so that they reach set targets, including but not limited to recruitment status, genetic diversity and distribution throughout the river habitat
SE36	Define necessary complementary measures supporting the EU multi-annual plans of cod, sprat and herring (Regulation (EU) 2016/1139) for Contracting Parties which are also EU Member States, in order to improve cod size/age-range
SE37	Sharing information among Contracting Parties, Baltfish and BSAC on non-lethal mitigation measures or other ways to manage seals-fisheries interactions and implementing those measures, as appropriate (Provisionally agreed by HELCOM 42-2021)
Provisional topic: Bycatch	
SE29	Invite the competent authorities to immediately, but no later than 2022, implement mitigation measures in the Baltic proper, in order for by-catch of harbour porpoise to be significantly reduced with the aim to reach by-catch rates close to zero. (Provisionally agreed by HELCOM 42-2021)
SE30	Continually test, promote and introduce new technical and operational by-catch mitigation measures such as alternative and seal safe gears in cooperation with competent authorities with the aim to, as appropriate, replace fishing gear proven to be problematic with respect to by-catch, with evaluation of measures every 5 years starting in [2022], and regularly update the HELCOM questionnaire on trials of alternative fishing gears and fishing techniques.
SE31/SN32	Develop at the latest by [2023] and implement an effective data collection for more reliable data on by-caught birds and mammals and fishing effort consistent and fully in line with the data needs

Code	Actions
	identified by ICES and data-gaps outlined in the HELCOM Roadmap on fisheries data, in order to assess incidental bycatches by [2025] as one criterion affecting the state of a species (2 other options also)
SE32	Invite the competent authorities to implement operational conservation measures for the Belt Sea population of harbour porpoise by [2024] such as permanent and/or spatial-temporal closures for relevant fishing métiers in risk areas where technical mitigation measures are insufficient to reach conservation goals.
SE33	Reduce the negative impacts of fishing activities on the marine ecosystem and to this end, support the development of fisheries management including technical measures to minimize unwanted by-catch of fish, birds and marine mammals and achieve the close to zero target for by-catch rates of relevant species, especially the Baltic proper population of harbour porpoise.
SN34	Cooperate with BALTFISH in order to promote the mandatory use of Acoustic Deterrent Devices or other effective mitigation measures in important distribution areas of harbour porpoise (Phocoena phocoena) to minimize bycatch of the species and to evaluate and adjust measures as needed

Code	Actions
Provisional theme: Seabed loss and disturbance	
SN37	Implement a common approach to assessing and addressing negative effects on the marine environment caused by loss and disturbance of the seabed building on and utilizing the ICES advice on seabed disturbance, the work of TG Seabed and work by relevant expert groups.
SN38/ SN40/ SN42	Regularly update and improve the HELCOM Recommendation and Guideline for handling dredged material at sea using the best available knowledge to minimize environmental impact of these activities further developing BAT and BEP for dredging and depositing operations.
SN39	Strengthening MPAs management including regulation for relevant human activities to not compromise the conservation objectives in/or nearby MPAs
SN41	Adoption of a moratorium on seabed mining in the Baltic Sea, including a moratorium on developing additional permissive regulations and exploitation and exploration contracts.
SE38	Develop common indicators, threshold values to evaluate the status of structure, function, distribution and loss of benthic habitats by [2022], where applicable no later than [2026]. Work should be done in close coordination with work undertaken by Contracting Parties in other relevant fora, such as TG Seabed.
SE39	To develop a map service for lost and disturbed habitats under HELCOM MADS by [2024]
SE40	To develop methods and define benthic habitats for assessment and collect relevant data to assess the status of the seabed by [2029]

Horizontal actions segment

Introduction

The topics included in this segment are by their nature cross-cutting, or "horizontal", thus potentially affecting the implementation of all elements of the Plan as a whole. The topics under the updated BSAP which have been identified as cross-cutting are:

- Climate change
- Monitoring
- Maritime spatial planning (MSP)
- Economic and social analysis (ESA)
- Hot spots
- Knowledge exchange and awareness raising
- Financing

Each of these seven topics is relevant to the achievement of the goals of the updated BSAP. Monitoring and ~~socio-economic analyses~~ESA, for their part, serve to examine and quantify the direct and indirect effects of the implementation of, or failure to implement, the measures included in~~t~~ the Plan. MSP is a key and increasingly important instrument for ecosystem-based management and working towards GES. Finally, the successful implementation of the Plan is contingent on the availability of sufficient funding.

Commented [LM(62]: FIN: Spell out

Commented [AJA63]: DK: We should be consistent in the way the updated BSAP/BSAP/Plan/ HELCOM Baltic Sea Action Plan is mentioned.

Climate change

The challenges presented by marine climate change impacts are by their nature a regional and horizontal concern, covering aspects from science to high level policy, with climate change impacts already evident in the Baltic Sea: water temperature is rising, the ice extent has decreased, and annual mean precipitation has increased over the northern part of the region. These impacts affect the nature of the sea, its ecosystems as well as the human activities depending on it and the ecosystem services it provides. For example, many wintering birds have shifted their wintering range northwards, the numbers of warm water fish species, such as sticklebacks, are increasing, the risk of infection of human-pathogenic Vibrio spp. has increased through surface water warming, and trawl fishing now begins earlier in the year and has increased opportunities to operate in the northern Baltic Sea.

However, the various effects of climate change are often not straightforward and can be difficult to distinguish from other anthropogenic pressures. Both climate and other human-induced pressures vary significantly between different regions in the Baltic Sea, making it unfeasible to find simple management solutions that work for the entire region. In order to mitigate these negative effects, policies thus need to account for these differences and utilise an adaptive management approach based on the best available science.

In order to support such adaptive management, climate change work within HELCOM will focus on long-term, multi-disciplinary approaches to understanding and communicating the implications of climate change for the marine and coastal environment , while ~~keeping the lag time in~~ transferring the quality assured science to the policy level as ~~short~~ quickly as possible. HELCOM will function as the platform to bridge this knowledge to policy and practice, including through cooperation and communication with other instrument, e.g. the HELCOM cooperation to minimize negative impacts from shipping on the Baltic Sea environment includes cooperating and incentivising transition of the maritime sector. As part of this cooperation HELCOM will continue to support initiatives to reduce greenhouse gas emissions from shipping.

The ultimate aim of HELCOM work on climate change has been identified as increasing the resilience of the ecosystem of the Baltic Sea with regards to climate change impacts, thus all measures that strengthen the Baltic marine ecosystem resilience to changes induced by climate change should be regarded as climate adaptation measures.

Carbon is the currency that links the Baltic ecosystem to climate change. Globally, greenhouse gas emissions such as methane from lakes and reservoirs represent around one fifth of those from fossil fuel combustion. In order to make progress with climate change mitigation measures related to the Baltic Sea, such as increasing “blue carbon”, we need to understand the carbon cycle in the Baltic Sea land-sea system and links between carbon dynamics (e.g. land-based input of organic carbon and outgassing of methane), eutrophication legacy (e.g. carbon in sediments, anoxia) and biodiversity (e.g. carbon sequestration).

Although acidification is not a current major trend in the Baltic Sea ecosystem, it is an advancing and serious trend in the world’s oceans, it is directly connected to carbon dioxide emissions, and the long-term trend also in the Baltic Sea is increased acidification. Neither the ~~C~~carbon chemistry of the Baltic Sea, nor possible impacts of acidification on biota~~,~~ are ~~not~~ fully understood and measures have so far not been considered.

Code	Actions
HAN09	HELCOM and its parties will continue to strive to develop the work at the HELCOM Secretariat and the organisation of HELCOM meetings so as to further minimize emissions of greenhouse gases
HAN10	HELCOM will promote research that identifies how mitigation by natural blue carbon processes can be maximised and implement suitable measures. In order to do that, HELCOM will promote understanding of the role of the Baltic Sea land-sea system in the carbon cycle, particularly on ecosystem carbon sink (e.g. sequestration in biomass) or source (e.g. methane outgassing) dynamics and the role of land-based input of organic carbon. The connection of carbon dynamics to

Commented [SK64]: SE: Very few Vibrio are human pathogens,
If you mean Vibrio vulnificus specifically then maybe good to write that.

Commented [LM(65]: FIN: This would simplify and shorten.

Commented [LMS66]: DK: just for shorting the text a bit, a small refrasing could be done to this text:
HELCOM cooperation to minimize negative impacts from shipping on the Baltic Sea environment includes cooperating and incentivising transition of the maritime sector such as supporting initiatives to reduce greenhouse gas emissions from shipping

Commented [LM(67]: FIN: Should be ”ecosystem”

Commented [SK68]: SE: Since the Baltic is also affected by temperature changes to a high degree, we think this sentence should be deleted.

Commented [SK69]: SE: The term ”carbon dynamics” includes much more than land-based input of carbon and outgassing of methane. We therefore suggest the parenthesis to be deleted.

FIN: Response to SE comment: That is why there is “e.g.”. Each of the aspects has some examples in parenthesis.

	eutrophication and biodiversity should be taken into account. Increased understanding should be utilised to enable consideration of additional management measures.
HAN11	HELCOM will develop an acidification action plan for the Baltic Sea with first steps addressing the knowledge gaps.
HAE01	Using the HELCOM/Baltic Earth Joint Expert Network on Climate Change as a platform and through committed implementation of the HELCOM Science Agenda, improve access by the policy-makers to scientific information on the impacts of climate change together with multiple other pressures on the Baltic Sea marine environment through periodic updates of the HELCOM Climate Change Factsheet, and incorporate the possible effect of climate change into the holistic assessment of status as well as effectiveness of measures by [2030] at latest.
HAE02	Identify the needs and possibilities to further adapt HELCOM's policies and recommendations to account for effects and impacts on the environment under the changing climate and to develop and carry out a climate change policy review process as part of the work of HELCOM, starting e.g. with indicators and open recommendations.

Monitoring

Monitoring is a well-established function of the Helsinki Convention, with coordinated monitoring of physical, chemical and biological variables of the open sea of the Baltic ~~Sea~~ Sea carried out since 1979. The data stemming from these coordinated monitoring programmes provide~~s~~ the basis for understanding the state of the ecosystem and the impacts from human activities as well as the effects of measures addressing them.

The HELCOM Monitoring and Assessment Strategy sets out the basis for how the HELCOM Contracting Parties commit themselves to designing and carrying out their national monitoring programmes and work together to produce and update joint assessments. ~~The~~ HELCOM monitoring then provides the necessary data needed for the regular assessments of the state of the Baltic Sea, the human pressures and their impacts affecting the state. It also enables evaluations of the extent to which measures are effective and contributes to the implementation of the Baltic Sea Action Plan and the progress towards the visions, goals and objectives of the BSAP. For those CPs who are also EU member states the joint monitoring also supports ~~contributes to~~ fulfilling the requirements of the EU MSFD or WFD, HD and BD.

HELCOM monitoring can also be utilized to detect climate change and its impacts on the Baltic Sea marine ecosystem over time. Sites with relevant long-term data records are sustained, whilst accommodating improved data collection techniques where appropriate, thus maintaining long~~-~~term data series needed to identify change over time. This can enable assessment of the ability of the marine environment to cope with, adapt to or recover from the effects of climate changes.

Code	Actions
Provisional topic: Monitoring, general	
HAE03	Regularly review, and as necessary revise HELCOM monitoring programmes (once per 6 years), including the level of regional coordination, in line with the MSFD reporting cycle, to adjust them to the latest technical and scientific developments for a cost-effective joint monitoring, which fully supports the indicator-based assessment approach and monitoring of the implementation of the HELCOM Baltic Sea Action Plan, and is in line with other international monitoring and reporting requirements
HAE04	The validity of HELCOM Monitoring and Assessment Strategy and Data and Information Strategy should be reviewed within 2 years after updating the BSAP and revised as needed.
HAE05	Ensure all HELCOM monitoring programs are regionally coordinated by [2026]
Provisional topic: Monitoring of habitats and biotopes	
HAE06	Map biotopes and habitats nationally based on regionally comparable classification systems, including key habitats and habitat forming species, and identify gaps in spatial coverage of mapping efforts, with the aim to produce Baltic-wide models, including production of maps, of distribution of habitats and biotopes by [2028].
HAE07	As a first step target the gaps identified in the HELCOM monitoring programmes of biotopes, habitats, including key habitats and key habitats forming species by [xxx] and operationalize continual Baltic-wide monitoring of those biotopes and habitats by [2030].
HAN02	Development of standards for quality of seafloor habitat mapping and products

Maritime spatial planning

Maritime Spatial Planning is a process to support integrated management of sea-based human activities and thus reduce their negative impacts on various components of the marine environment, contributing to the achievement of goals and objectives of different BSAP segments. It should help safeguard biodiversity, promote sustainable use of marine resources and it balances the interests of stakeholders, also ~~considering~~ in the light of international environmental commitments. As an integrated tool MSP contributes to climate change adaptation and mitigation increasing the climate resilience.

Maritime Spatial Planning ~~has~~ provides important added value ~~to~~ for the BSAP as it is the only process that considers the spatial perspective. ~~Unlike marine protection measures that focus on single individual human activities or components of marine ecosystems,~~ MSP is based on a comprehensive, coherent ~~a~~cross-border~~s~~ and forward-looking analysis of the use of marine space ~~use~~ with the~~a~~ purpose of identifying preferred and optimal locations for sea-based activities.

Maritime Spatial Planning supports sustainable development and sustainable blue/marine economy applying an ecosystem-based approach. It also considers social, economic, cultural and other relevant aspects and enhances marine nature values, facilitates nature conservation and improves marine ecosystem services.

Code	Actions
HAN04	Utilize Maritime Spatial Planning (MSP) applying an ecosystem-based approach to support BSAP-objectives and targets and contributing to sustainable sea-based activities
HAN05	Use MSP as a tool to signal areas of high nature value ~~as identified in marine environmental management~~
HAN06	Implement MSPs with the aim to steer sea-based activities away from areas where they can cause serious damage or disturbance

Commented [SK70]: SE: Needs rephrased, since this is not correct. MSP and many others also consider spatial aspects.

Potential rephrasing: "… in that it provides tools to manage/optimise location of activities"?

FIN: Agree but "manage/optimise" could be phrased better, possibly "as it provides a tool to interactively and cooperatively agree on an optimal spatial location of various activities."

Commented [LM(71]: FIN: This belittles protection. Our action plans nationally are ofter very comprehensive and cover all aspects and pressures necessary. Please delete.

Commented [SK72]: SE: These will all be difficult to follow up. Consider the framing for such actions.

Commented [LM(73]: FIN: This ending is slightly odd in the BSAP context. As if nature values would be an outside issue to this BSAP work although they are at the heart of it. Would be better if deleted.

Economic and social analysis

Economic and social analyses of the environment can demonstrate the interaction between the ecosystem and the social-economic system. Further, economic and social analyses can be used to illustrate the importance of the marine environment in the Baltic Sea to the citizens and society, the well-being of current and future generations, and national and regional economies.

Economic and social analyses reveal the market and non-market benefits people obtain from the use and existence of marine and coastal areas. For instance, analyses show the economic values of human activities and the benefits people derive from the knowledge that the Baltic Sea ecosystem is healthy~~,~~ and its species are thriving. They show what it costs to implement measures to improve the state of the environment, and help identifying the cost-effective way of achieving environmental goals, thus supporting the efficient use of society's limited resources. Combined information on the benefits and costs enables assessing the economic efficiency of policies and environmental objectives.

In recent years, economic and social aspects of protecting the Baltic Sea have been advanced within HELCOM by ~~establishing the HELCOM expert network on economic and social analyses (ESA)~~ and carrying out regional economic and social analyses of the use of marine waters, costs of degradation from not achieving a good status of the marine environment, and sufficiency, effectiveness and costs of measures. However, several methodological and practical challenges and knowledge gaps remain~~, as existing economic and social analyses do not cover all the relevant and important aspects of how the marine environment and people are related~~.

~~The BSAP includes a commitment~~ In order to use and further advance the regional economic and social analyses for policy support, BSAP~~. The~~ actions cover ~~for economic and social analyses in the BSAP describe~~ priority areas for developing and implementing these analyses for the Baltic Sea region. ~~Implementing the actions supports the further integration of economic and social considerations into the protection of the Baltic Sea~~. The actions provide regionally coherent data and results to support ecosystem-based management, sustainable use of marine resources, and development of efficient regional and national policies, including the BSAP and maritime spatial planning.

Code	Actions
HAE08/HAE09	By [2023], integrate economic and social analyses in HELCOM work strands to support the implementation of the ecosystem-based approach and allow for assessment of the linkages between the marine environment and human wellbeing, including carrying out regionally coordinated economic and social analysis of the marine environment.
HAE10/HAE11	By [2028], improve the use of results from economic and social analyses in decision-making, including through establishing a set of indicators that describe the economic and social aspects of the marine environment.
HAE12	By [2030], integrate quantitative and qualitative economic values of the environment into the management of human activities and maritime spatial planning
HAE13/HAE14	By [2023], identify potential uses of ecosystem services assessment and valuation, further develop and apply regionally coordinated methods in support of analyses of ecosystem services and provide an initial demonstration of how they can be used in policy development.
HAE15	By [2028], apply the framework of ecosystem accounting to assess the contributions of marine ecosystems to economic activity (e.g. GDP) using values that are compatible with the system of national accounts and comparable with other economic sectors
HAE16/ HAE17/HAE18	By [2024] analyse existing tools for analysing sufficiency of measures, with the aim to plan monitoring and assessment of the effect and cost of measures, in order to further make use of the experiences when the need of new measures occurs. By [2028], further develop and apply regionally coordinated methods for analyses of sufficiency of measures as well as for cost-effectiveness of measures and costs and benefits to achieve good environmental status of the Baltic Sea marine environment.
HAE19	By [2025] identify incentives to reduce pressures on the marine environment, including public and private economic and regulatory incentives, and by [2030] increase the use of incentives and fill possible gaps.

Commented [SK74]: SE: This is very general, not BSAP specific, it does not reveal objectives, actions or other relevant parameter for BSAP. Consider deleting or shortening substantially (1 or 2 sentences would be sufficient). It also overlaps the following para.

Commented [AJA75R74]: DK agrees. A sugestion to wording could be: Economic and social analyses of the environment can demonstrate the interaction between the ecosystem and the social-economic system. Further, economic and social analyses can support the decision-making in relation to environmental policies and objectives by illustrating the importance of the marine environment in the Baltic Sea to the citizens and society, the well-being of current and future generations, and national and regional economies.

Commented [SK76]: SE: Specific networks should not be mentioned in BSAP (can change, and they are not mentioned elsewhere)

Commented [SK77]: SE: In an action plan we should focus on solutions, not gaps

Commented [SK78]: SE: Do we refer to overarching preamble here?

Commented [SK79]: SE: repeated

Code	Actions
HAE20	By [2025] HELCOM should identify subsidies or incentives which are harmful for the marine environment and, by [2030] work, in cooperation with relevant international organizations, on phasing out such subsidies or incentives, the work should be done.

Hot Spots

The Baltic Sea Joint Comprehensive Environmental Action Programme (JCP) was ~~established~~ adopted in 1992 as the international environmental management framework for the long-term restoration of the ecological balance of the Baltic Sea. The major activity of the JCP was identifying and cleaning up pollution Hot Spots. The HELCOM Hot Spot list established in the framework of the JCP includes point sources, such as municipal facilities and industrial plants, agricultural areas and rural settlements, as well as sensitive areas such as coastal lagoons and wetlands where special environmental measures are needed.

Good progress has been made in the last three decades by cleaning up more than three quarters of the total 162 HELCOM Hot Spots. Work still remains to tackle the remaining 40 pollution sites. In general, despite the delayed implementation, the Programme demonstrates its effectiveness for prioritizing and tackling local environmental issues and, thus, contributing to the overall progress towards good environmental status of the Baltic Sea.

In the effort to renew "hot spots" as an international tool to address topical environmental issues in the region, the scope of the programme should be widened to include also emerging challenges such as marine litter ~~and underwater noise~~. Criteria for identification of new hot spots and their removal from the HELCOM list should be advanced and tailored for various types of sites and areas on land and at sea. However, the criteria for removal of hot spots included in the JCP programme (1992) should remain unchanged to avoid moving target. Newly developed criteria should be transparent and applicable either to national or international financial instruments in developing investment programmes and following up their implementation. The tool is also to be utilized to strengthen cooperation with non-HELCOM countries in the Baltic Sea catchment area.

Code	Action
EE25a	Renew the effort to eliminate hot spots remaining in the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP, 1992) by [2025].
EN20	Designate "New Hot Spots" as sources of negative impact on the Baltic Sea marine ecosystem based on specified HELCOM criteria and undertake targeted measures to eliminate them.
EE25b/EE27	Prioritize inclusion of HELCOM hot spots into investment programmes (national or international) or establish alternative financial mechanisms to eliminate remaining hot spots from HELCOM list by [2025]
EE26	Specify HELCOM criteria for designation and deletion of "New hot spots" and apply these criteria to justify results of investment projects aimed at elimination of these hot spots.
EE24	Enhance cooperation with non-HELCOM countries to designate new hot spots applying HELCOM criteria and facilitate undertaking all possible measures to eliminate them.

Commented [SK80]: SE: this is almost an action in itself, explaining how to carry out EN20. we need to discuss how to place/phrase this type of statements (similar exists for RAPs)

Commented [LM(81]: FIN: There is some overlap with EE26.

Commented [LM(82]: FIN: The end part of EE26 ("apply these criteria to justify results of investment projects aimed at elimination of these hot spots." – WHY RESULTS OF ?) could perhaps be combined to this.

Knowledge exchange and awareness raising

Knowledge exchange and awareness raising are increasingly recognised as key factors ~~facilitating~~ promoting the social, environmental and economic impacts of measures, thus improving the sustainable management of natural resources and the goods and services they provide, and in turn ensuring the well-being of the people that depend on them. When done successfully, knowledge exchange and awareness raising increase the likelihood that knowledge and evidence will be used in policy ~~and practice~~ decisions, thus increasing the success of those decisions in meeting their objectives. The delivery of ~~Delivering~~ messages to stakeholders and the general public, should be based on science and ~~centrally coordinated to~~ cover all important topics and avoid exclusion of information.

Code	Actions
HAN07	Knowledge exchange and awareness raising to increase public and stakeholder support and interest on the restoration of good status of the Baltic Sea
HAN08	Promote an understanding on the state of the Baltic Sea and threats to its environment, share experience and best practices on measures that have been implemented, as well as promote opportunities for general public to participate in citizen science. Activities may include issuing press releases, briefings and commentaries; disseminating reports, studies and publications; holding stakeholder meetings related to the work of HELCOM, as well as public meetings, conferences and workshops; and creating and contributing to educational materials; development of HELCOM map- and data services to provide coherent information on the status and pressures of the Baltic Sea.
BN13	By [2024] take actions to improve public awareness of potential impacts of human activities on coastal ecosystems.

Commented [LM(83]: FIN: What does "practice decisions" mean? We propose to delete.

Commented [LM(84]: FIN: It would be important to emphasize that only well established, i.e., science-base information should be shared.

Commented [LM(85]: FIN: This raises questions: what does this mean? The Secretariat, nationally?

Commented [LM(86]: FIN: These are tricky as messages are often focus on only a particular topic and by nature don't cover all important topics and do exclude information. If the intention is to emphasize that the messages should stick to and not twist the truth, then another wording should be found.

Commented [LM(87]: FIN: This should include information on WHAT

Commented [LM(88]: FIN: We propose this addition as based on our experience this has been a good tool to improve the understanding of the public and overall support to the work that HELCOM does on the Baltic Sea.

Financing

The economic benefits of achieving a good status with regard to eutrophication, biodiversity and other aspects of the Baltic Sea ecosystem are evident and documented by impressive figures. The c~~C~~osts of protecting the Baltic Sea can be reduced by a cost-effective allocation of measures~~,~~ and, in many cases, benefits have been evaluated to exceed the costs. On the other hand, it should also be borne in mind that the cost of insufficient protection can be substantial as the polluter-pays principle is one of the fundamental principles and obligations enshrined in Article 3.4 of the Helsinki Convention.

In this respect, all Contracting Parties and HELCOM Observers shall investigate how to make available funding [i.e. financial and non-financial contributions] for the implementation of the HELCOM Baltic Sea Action Plan, taking into account especially the need to connect priorities within the different sectors in which projects are being chosen for financing in order to use synergies and make best use of limited [financial] resources.

It should be underlined that increased public and private investment is necessary to achieve- the actions and objectives of the updated ~~for actions according to the updated~~ Baltic Sea Action Plan and thereby ~~to~~ achieve a healthy Baltic Sea. Providing appropriate economic incentives ~~is~~would be a central measure to incentivize such investments.

The private sector, financial institutions as well as non-profit foundations and ~~Non~~non-Baltic Sea states are therefore invited to join in the efforts to restore the good environmental status of the Baltic Sea, which also supports a growing sustainable blue economy in the region.

Contracting Parties will support mobilising available private and public funding sources to implement the BSAP [as appropriate] and where possible also promote (mobilising) external funding in the context of *inter alia* the World Bank, the German *Kreditanstalt für Wiederaufbau* (KfW), The Blue Action Fund, the Nordic Investment Bank and others.

The EU and those of its member states that are Parties to the Convention ~~will~~ intend to dedicate funding to the implementation of the updated HELCOM Baltic Sea Action Plan, notably where funding is available through programmes funded by the European Structural and Investment Funds in the 2021-2027 programming period and by funding adequate measures under the Common Agricultural Policy and the Common ~~Fishery~~ Fisheries Policy. They commit to taking into account priorities of the revised Action Plan of the EU Strategy for the Baltic Sea Region (EUSBSR) and its Policy Areas aiming to save the Baltic Sea in the programming and implementation of post-2020 relevant programs;

In that context, the Baltic Sea Action Plan Fund hosted by NIB/NEFCO ~~shall~~ can be a tool for supporting the implementation of the updated BSAP and Contracting Parties and other possible contributors ~~will~~ can voluntarily contribute to the Fund, with a view to replenishing the Fund so that it can provide funding to all actors interested in contributing to the aims and objectives of the Baltic Sea Action Plan.

Commented [AJA89]: Would it be wrong to mention all the segments? And not "just" biodiversity and eutrofication?

Commented [AJA90]: Consider deleting. It is not the the task of HELCOM to provide economic incentives. However, HELCOM could support by identify public and private economic and regulatory incentives, and increase the use of incentives – this relates to HAE19

Commented [SK91]: EE would prefer using the word promote in both places in this sentence, or use the original wording.

Commented [SK92]: EE would prefer to avoid German phrases in the English version of the BSAP text, because these are not commonly understandable to all nations; possible a translation could be added in brackets

Commented [SK93]: EE: We are not able to say at this stage, that we "will intend to dedicate funding". Proposal for rephrasing: shall make efforts to

Commented [LMS94R93]: DK propose to delete "will".