



---

<b>Document title</b>	Proposals to advance the HELCOM nutrient reduction scheme and its follow-up
<b>Code</b>	3-16
<b>Category</b>	DEC
<b>Agenda Item</b>	3- Matters arising from the HELCOM Groups
<b>Submission date</b>	23.05.2019
<b>Submitted by</b>	Executive Secretary
<b>Reference</b>	

---

## Background

[HELCOM Brussels Ministerial Meeting 2018](#) recognized the sustained high nutrient input into the Baltic Sea and committed, among other measures, to enhance cooperation with the relevant river basin authorities to better align national and international nutrient reduction requirements for the river basins and the marine environment.

The Ministerial Declaration furthermore acknowledges that, due to improved data on nutrient inputs in the reference period, the Country Allocated Reduction Targets (CART) for nutrients are no longer always sufficient to achieve GES of the Baltic Sea with regard to eutrophication and, therefore, the follow-up of the nutrient reduction requirements of the BSAP should focus on national commitments based on Maximum Allowable Inputs (MAI) and that this should be taken into consideration when updating the BSAP. The Ministerial Declaration also emphasized the impacts of climate change together with multiple other stressors on the Baltic Sea marine environment. Finally, the Ministers launched the process of the BSAP update, stressing that the updated BSAP should include actions necessary to achieve the current HELCOM strategic goals including the goal “Baltic Sea unaffected by eutrophication”.

The Workshop on land-based nutrient loads to the Baltic Sea (NutriRed, 12-13 November 2018, Stockholm, Sweden) was tasked to evaluate scientific advancement of the assessment of nutrient loads since 2013; identify future policy needs the assessment is to cater for; layout adjustment of the scheme based on the Ministerial decision and potential methodological improvement of the follow-up based on the up-to-date scientific knowledge; discuss possible new policy tools to enhance nutrient reduction such as reduction targets for river basins.

Following up suggestions and discussions at the NutriRed workshop, RedCore DG proposed a list of improvements of the HELCOM Nutrient Reduction Scheme and its follow-up. The proposals are grouped into 3 categories related to: data and reporting, follow-up assessment and nutrient reduction scheme. Some of the suggestions are interconnected, as e.g. updates of the nutrient reduction scheme require corresponding changes of the follow up system.

The proposal was considered by PRESSURE 10-2019. The group proposed concrete actions to improve the HELCOM nutrient reductions scheme and its follow up system, which are included in this document.

## Action requested

- The Meeting is invited to consider and agree on the proposed advancement of the HELCOM nutrient reduction scheme and its follow up system and approve the concrete actions.

## Proposals to advance the HELCOM nutrient reduction scheme and its follow-up

	Issue	Solution	Comments	Actions proposed by PRESSURE 10-2019
<b>1</b>	<b>Data and Reporting</b>			
1.1	Annual atmospheric deposition is reported well after waterborne inputs and delays assessment	Agreement with EMEP on providing the air deposition data by the end of August of the year following the reporting year, as latest.	An initial discussion with EMEP took place at PRESSURE 9-2108. EMEP in general agreed to provide data earlier, e.g. in August. We can change the dates of data delivery in the new update of the contract in summer 2019. In addition, the updated key messages of the assessment reports will be included into the contract.	Request RedCore and Secretariat to elaborate relevant updates to the contract with EMEP.
1.2	Atmospheric deposition is reported ad hoc via email without consistent format	Decide with EMEP on a standardized format, enable upload or download service.	Should be relatively easily achieved. See suggestion 1.1.	Request RedCore and Secretariat to elaborate relevant updates to the contract with EMEP.
1.3	PLC water database misses still some of the amendments in the assessment data set, cause extra work and duplication of DBs	Include assessment data before 2012 also in PLC water database using specific QA mark.	Acceptance from CPs needed	-National data reporters are invited to re-report estimated (corrected) data to PLC-water database on voluntary basis. -RedCore DG and PLC-7 Implementation Group requested to consider options to store assessment data separately from the PLC-water database.
1.4	Older transboundary input data is missing in the PLC water database	Encourage reporting of time-series when available.	Countries have to provide the missing data.	National data reporters are urged to report missing transboundary input time series to the PLC water database.

1.5	There are still significant differences in methodology and definitions in calculation of source apportionment between the CPs	Improving comparability of data on natural background losses and anthropogenic diffuse losses across the region.	An overview of the methods used for sources apportionment was compiled by PLC-6. Ongoing work on reviewing of the methods to identify natural background is currently led by Germany within PLC-7 project. The work on harmonization of methodologies to assess diffuse losses was postponed. It will be done by PLC-8.	There is a need to launch regional activity aimed at improving comparability and consistency of methodological approaches, including definitions, to identify various types of diffuse losses.
<b>2</b>	<b>Follow-up assessment</b>			
2.1	Inconsistent/lack of transboundary waterborne input data complicates and reduces quality of the assessment of progress towards national reduction targets	<ul style="list-style-type: none"> <li>a. Encourage CPs to improve reporting/report also older data</li> <li>b. Update methodology to a two-stage assessment of transboundary rivers</li> </ul>		To request RedCore to propose a solution how to improve quality of the assessment related to transboundary issues.
2.2	Changing data set cause changing nutrient inputs in the reference period	Consistent use of MAI and nutrient input ceilings.	Challenge when differences are large, primarily concern for waterborne transboundary and to some extent atmospheric deposition. The input ceilings update is considered in the item 3.3.	To use national input ceilings to assess progress and to incorporate nutrient input ceilings in the BSAP update
2.3	Extra reduction	Final approval of the principles to use the methodology for accounting extra reduction.	See outcome of HELCOM 40-2019.	The document containing joint proposal by Denmark and Germany on principle 8 was agreed by PRESSURE 10-2-19 and is submitted to HOD 56-2019 for final approval. PLC-7 is requested to utilize the methodology after approval by HOD 56-2019.

2.4	At least some CPs need separate assessment of progress towards national nutrient input reduction targets for airborne and waterborne inputs	Separate trend analysis on water and airborne inputs could be done.	Challenges: It is not self-evident in current reduction scheme whether input ceilings could be divided between sources according to their share in the reference period. Proper trend analysis of sources/country for all combinations will make the amount of results (and calculations) quite large.	PLC-7 is requested to produce separate trend analysis for air- and waterborne inputs for all countries but without evaluation against reduction targets, which could be done nationally (see item 3.4).
2.5	Assessment of progress toward nutrient input reduction targets for individual river basins	Separate trend analysis can be done.	Challenges: It is not self-evident in current reduction scheme whether input ceilings could be divided between sources Proper trend analysis of sources/country for all combinations will make the amount of results (and calculations) quite large.	-PLC-7 was requested to produce trend analysis (simple linear trends) for individual rivers and make it available for the Contracting Parties, to be further utilized as a starting point for communication with river basin authorities. -An assessment of progress towards nutrient input reduction targets might be feasible in case of input ceilings for individual river basins are agreed (see item 3.2).
2.6	Level of details in presentation of data and results insufficient for engagement of municipalities and regional stakeholders	Further develop PLC-water interface and assessment result presentations.	Trend analysis of input changes for individual river basins might engage local stakeholders and, particularly, municipalities into the work on nutrient input reduction making their contribution visible on the regional scale.	To take note that as a starting point RedCore DG proposes to discuss the ways to increase visibility of effort by municipalities at the workshop with river basin authorities. HELCOM M&D service can be used to increase the visibility.
2.7	Assessments of nutrient inputs and state of the sea are presented separately, and the effects of nutrient inputs are not addressed properly	Advancement of the HELCOM core indicator on nutrient inputs, including into the indicator information on time series of the parameters illustrating the state of the sub-basin.	Sub-basins used for assessment of status and inputs are to be harmonized.	-RedCore DG is to keep communicating with IN-EUTROPHICATION to align relevant HELCOM core indicators. -To use the indicator workshop as a starting point for discussion on joint interpretation of data on status of the sea sub-basins and nutrient inputs.
<b>3</b>	<b>Nutrient reduction scheme</b>			

3.1	What is the potential reduction achieved through implementation of river basin management plans (e.g. WFD).	Assessment of sufficiency of measures to reduce nutrient loads included into river basin plans and marine environmental targets for inputs of nutrients.	The issue is to be addressed in the work on sufficiency of measures ACTION project.	The results of the ACTION project will serve as a basis for discussion.
3.2	Identification of input ceilings for river basins	Could be set by simply setting the same reduction percentage for all rivers to a Baltic Sea sub-basin, but this would most probably lead to strange reduction requirements for many rivers. Ideally, source apportionment and/or WFD assessment/PoM should be taken into account.		Indicative reduction needs for individual rivers will be calculated by PLC-7 and discussed at the Workshop with river basin management authorities after validation by Pressure group.
3.3	Need to update agreement on input ceilings due to new data on transboundary waterborne loads.	It is now realised that new estimates of division of inputs between countries for several of the transboundary rivers diverge strongly from the original estimates that are basis for current input ceilings. Either a new scheme of handling transboundary rivers or updated input ceilings will become necessary.	As it was already discussed national nutrient input reduction targets (input ceilings) could be adjusted utilizing new knowledge on transboundary inputs.	-RedCore and PLC-7 are requested to estimate the changes in input ceilings caused by updating the transboundary data and present the results to PRESSURE 11-2019. -An update of the agreed ceilings will be proposed utilising the up-to-date data on transboundary loads and atmospheric deposition without changing of the basic principle of identification of the input ceilings.
3.4	Identification of separate reduction targets for air- and waterborne inputs of nitrogen.		See item 2.4. If separate assessment for air- and waterborne inputs is included into the follow-up system, there might be a need to set also separate reduction targets.	Evaluation against reduction targets separately for air and waterborne input could be done nationally (see item 2.4).

3.5	Need to address Western Baltic (and the Sound) and Archipelago Sea as separate sub-basins		This will require MAI for these basins and adjust the inputs ceilings accordingly	-PLC-7 assessment will be based on the current division of the Baltic Sea to sub-basins, though, a trial calculation of separate load for the Archipelago Sea will be made. -The Baltic Sea modelling could be advanced in the future. As resource-demanding task, it is proposed to be included into the HELCOM science needs.
3.6	Climate change is not addressed quantitatively		Climate change should be considered in relation to: <ul style="list-style-type: none"> <li>• Effects on environmental targets e.g. MAI.</li> <li>• Time scale (MAI will be time restricted)</li> <li>• Effects on nutrient inputs to sub-basins</li> <li>• Effect on water exchange</li> </ul>	Taking climate change into account in the HELCOM nutrient reduction scheme is an immense, resource-demanding task which is proposed to be included into the HELCOM science needs.
3.7	Coastal retention is only partly included in the nutrient reduction scheme			Integration of coastal retention to the Baltic Sea nutrient flux model is future task which is proposed for inclusion to the HELCOM science needs.