Notes of the HELCOM Workshop on the update of the national nutrient input ceilings

Background

The HELCOM Workshop on the update of the national nutrient input ceilings took place online 20 April 2020 from 10.00 to 14.00 EET. The workshop was attended by representatives of all HELCOM Contracting Parties except the EU and observers: BFFE, FEAP and WWF. Alltogether 30 participants attended the workshop (Annex 1).

The goal of the workshop was to discuss two key questions related to the HELCOM nutrient input reduction scheme. The first key question concerns the new assessment of progress towards nutrient input ceilings agreed at MD 2013 in the period 1995-2017. The other question is the proposal to update nutrient input ceilings utilizing the best available data on air- and waterborne inputs. The workshop is also intended to assure data transparency and common understanding by all experts in the Baltic Sea region of methodological approaches applied in the assessment and computation of the updated nutrient input ceilings.

Part 1. Assessment of progress towards national nutrient input reduction ceilings in 1995-2017

Key presentation: ***A draft assessment of the progress towards nutrient input ceilings (NICs) in the period 1995-2017*** *Lars M. Svendsen (Aarhus University, Denmark).*

Background document:

A document with values and plots illustrating progress towards nutrient input ceilings for all countries will be submitted prior to the Workshop.

Participants of the workshop are also invited to consider the document prepared by EMEP to describe the major reasons for differences of N atmospheric deposition in the reference period (1997-2003) calculated in 2012 and 2019.

Part 2. Update of the nutrient input ceilings (NICs)

Key presentations:

Results of computation of updated nutrient input ceilings (NICs). *Bo Gustafsson (BNI, Stockholm, University, Sweden).*

Examples of evaluation of the nutrient inputs against proposed updated input ceilings. *Lars M. Svendsen (Aarhus University, Denmark).*

Background document:

Expected reductions of inputs from HELCOM countries, ship traffic and from non-Contracting Parties resulting from implementation of Gothenburg Protocol & NEC Directive will be presented in the EMEP's report on ENIRED II project.

Wrap up of the Workshop: Discussion and conclusions

The participants in general agreed that the data and methodologies used for the assessment are transparent and comprehensively presented. Nonetheless, new information given at the workshop requires further consideration.

Is it scientifically correct to compare new data on input of nitrogen with old ceilings?

Data for N deposition in the reference period used in the present assessment is on average30% higher than assessed in 2013 due to revision of N deposition data by EMEP. Also, data on transboundary loads and retention was revised. The workshop recommended that a few explanatory sentences are to be included in the policy message.

How and when the assessment against new NICs can be performed?

The assessment of progress towards NICs is a PLC-7 product and should be based on valid environmental targets. Updated ceilings are expected to be agreed as a part of updated BSAP in autumn 2021. A test assessment applying newly proposed updated ceilings can be performed by PLC-7 to illustrate the effect of the update of the values on the progress of HELCOM countries towards environmental targets. The data are urgently needed by some HELCOM Contracting Parties to plan programmes of measures for the second cycle of the EU MSFD.

The workshop also pointed out that an update of input ceilings would affect the SOM analysis.

How to apply extra reduction?

The Meeting clarified that the extra reductions and options for their application are to be computed by the PLC implementation team based on the unified agreed methodology. But the decision on application of the reduction is to be taken by each country nationally in accordance with the agreed principles of HOD 56-2019. The process of applying extra reductions can be better structured in the future based on the common agreement by CPs.

How to address the problem of the reliability of the data on ship traffic input of nitrogen?

The meeting took note of the concern regarding estimation of ship emissions' reduction in 2030. In case that the expected reduction scenarios for ship emissions are not realized, the BSAP goals will not be fulfilled. The workshop proposed to invite the HELCOM MARITIME group to evaluate the following:

- the validity of the scenario for expected reductions in nitrogen emissions from ship traffic through implementation of the NECA used in the EMEP ENIRED II report
- whether it can be expected that the application of scrubbers (when used in combination with SCR technology) leads to direct discharges of nitrogen removed from exhausted gases to marine water and whether there are data available to takes this into account quantitatively

How does climate change affect the proposed NICs?

Effect of recent changes of inputs due to the undertaken measures is believed to be more important than the effect of climate change. Another point is that eutrophication as well as

climate change are time dependent processes. The timeline for projection of the effect remains unclear.

How to follow up input by rivers?

The workshop proposed to have a separate indicator to follow up reduction in the individual river basins. The indicator can be based on the agreed input ceilings for individual rivers and the follow up could be organized as a part of the thematic report on “Input by Big Rivers”.

On the other hand, the workshop pointed out that in some cases the possibility to compile net input ceiling for input from country to sub-basin and follow it up is important. It concerns cases when natural background constitutes the major part of the river load and there is rather limited anthropogenic inputs to reduce.

How is the achieved reduction by 2017 addressed in the ENIRED project? How much of the projected reduction has been achieved already by 2017?

Correct calculation requires computing of 5-year average climate parameters for 2017. But a first rough estimate can be performed applying 23 meteorological years used for normalization. The dataset is not 100% compatible with the ENIRED II assessment but gives an estimate of the achieved reduction. The information is essential for planning measures under the MSFD and for the SOM analysis.

EMEP can estimate the workload required to make an assessment and the best method which can be used for such assessment.

The existing time series on reduction of airborne input can be utilized to estimate achieved reduction by 2017. Though, the EMEP calculation is more robust, the uncertainty of such assessment is within general uncertainty of the assessment of airborne N input.

Annex 1. List of participants

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