



Document title	Draft HELCOM Recommendations on waterborne pollution input assessment and on monitoring of airborne pollution input
Code	4-4
Category	DEC
Agenda Item	4 - Matters arising from the subsidiary bodies
Submission date	01.02.2016
Submitted by	Executive Secretary
Reference	Outcome of HOD 49-2015, paragraph 4.27

Background

HOD 49-2015 considered the draft Recommendation on waterborne pollution input assessment (Annex 1) and the draft Recommendation on monitoring of airborne pollution (Annex 2). The meeting endorsed the draft Recommendations and agreed to submit them for adoption, pending the confirmation by Germany.

Germany is invited to inform of their confirmation.

Action requested

The Meeting is invited to consider and adopt the draft Recommendation on waterborne pollution input assessment (Annex 1) and the draft Recommendation on monitoring of airborne pollution (Annex 2).

DRAFT HELCOM Recommendation 37/xx *)

Adopted xx March 2016,
having regard to Article 20, Paragraph 1 b)
of the Helsinki Convention

**) This Recommendation supersedes HELCOM Recommendation 26/2*

WATERBORNE POLLUTION INPUT ASSESSMENT (PLC-WATER)**THE COMMISSION,**

RECALLING Paragraph 1 of Article 3 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (Helsinki Convention), in which the Contracting Parties agreed to undertake measures to prevent and eliminate pollution in order to promote the ecological restoration of the Baltic Sea Area, as well as Article 5 to prevent and eliminate pollution of the marine environment of the Baltic Sea caused by harmful substances from all sources,

RECALLING ALSO Paragraph 2 of Article 6 of the Helsinki Convention, in which the Contracting Parties agreed to undertake, *i.a.*, to co-operate in the development and adoption of specific programmes concerning emissions and inputs to water of harmful substances,

RECALLING FURTHER Paragraph 2 of Article 16 of the Convention, in which the Contracting Parties agreed to undertake to provide, emission data or on environmental quality, as far as available which also includes pollution input data,

RECALLING FURTHERMORE Paragraph 5 of Article 3 of the Convention, in which the Contracting Parties agreed to undertake to ensure that measurements and calculations of emissions and inputs to water are carried out in a scientifically appropriate manner in order to assess the state of the marine environment and ascertain the implementation of the Convention,

NOTING the requirements of the EU Water Framework Directive concerning monitoring and reporting of discharges from point sources and losses from diffuse sources of nutrients and hazardous substances,

NOTING ALSO the need arising from the requirements of the EU Marine Strategy Framework Directive to provide information for an assessment of the environmental status and for an estimate of the distance from, and progress towards, good environmental status, which requires to minimize human-induced eutrophication and to lower concentrations of contaminants to levels not giving rise to pollution effects,

NOTING FURTHER the requirements of the Water Code of the Russian Federation, Federal Law of Russian Federation on Environment Protection and subordinated legal acts regarding monitoring of water quality,

IDENTIFYING the need to regularly follow up and assess progress in implementation of the requirements of the HELCOM nutrient reduction scheme established in the Baltic Sea Action Plan and updated by the commitments of the 2013 HELCOM Copenhagen Ministerial Declaration,

RECALLING the commitment of the Baltic Sea Action Plan to identify, estimate and reduce the discharges, emissions and losses of hazardous substances to achieve a Baltic Sea with concentrations of hazardous substances close to natural levels,

TAKING INTO ACCOUNT the requirements of the HELCOM Monitoring and Assessment Strategy implying a six-year monitoring and assessment cycle,

NOTING the continuing concern on harmful effects of pollutants in the environment and that a significant amount of various contaminants is entering the Baltic Sea via rivers and direct discharges, from industrial and municipal sources as well as from non-point sources in the whole Baltic Sea catchment area,

DESIRING to obtain a reliable assessment of the waterborne input of pollutants entering the Baltic Sea from the land-based sources for the concerted action to limit the pollution of the marine environment of the Baltic Sea Area,

RECOMMENDS to the Governments of the Contracting Parties to the Helsinki Convention that:

- a) the pollution input assessment should be carried out and reported in accordance with the PLC-Water Guidelines¹ Input Assessment;
- b) the Guidelines should be regularly evaluated and updated by experts to meet the topical requirements and adopted by the responsible subsidiary body of HELCOM;
- c) the quantified waterborne total inputs (from rivers, unmonitored areas as well as point sources discharging directly to the Baltic Sea) of nutrients and hazardous substances are reported to HELCOM annually. This includes quantification of the transboundary waterborne inputs according to the PLC-Water Guidelines;
- d) the quantified total waterborne input specified in c) and other relevant information as specified in the PLC-Water Guidelines should be submitted by all Contracting Parties in accordance with the agreed format by the end of October following the year of data collection;
- e) the following data and information are reported to HELCOM every sixth year unless decided otherwise in HELCOM: quantified waterborne discharges from point sources and losses from diffuse pollution sources as well as the quantified natural background losses into inland surface waters within the catchment area of the Baltic Sea. The reporting includes quantification of the transboundary waterborne inputs together with other relevant information related to these inputs as specified in the PLC-Water Guidelines;
- f) the information specified in e) should be reported by all Contracting Parties in accordance with the agreed format by the end of December following the year of data collection.

¹ HELCOM Guidelines for the annual and periodical compilation and reporting of waterborne pollution inputs to the Baltic Sea (PLC-water).

DRAFT HELCOM Recommendation 37/xx *)

Adopted xx March 2016,
having regard to Article 20, Paragraph 1 b)
of the Helsinki Convention

**) This Recommendation supersedes HELCOM Recommendation 24/1*

MONITORING OF AIRBORNE POLLUTION INPUT**THE COMMISSION,**

RECALLING Paragraph 5 of Article 3 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (Helsinki Convention), in which the Contracting Parties agreed to undertake that measurements and calculations of emissions from point sources to water and air and of inputs from diffuse sources to water and air are carried out in a scientifically appropriate manner in order to assess the state of the marine environment of the Baltic Sea and ascertain the implementation of this Convention,

RECALLING ALSO Paragraph 3 of Article 24 of the Helsinki Convention 1992, in which the Contracting Parties agreed to undertake directly, or when appropriate through competent regional or other international organizations, and, on the basis of information and data acquired pursuant to Paragraphs 1 and 2 of this Article, to co-operate in developing inter-comparable observation methods, in performing baseline studies and in establishing complementary or joint programmes for monitoring,

NOTING the need arising from the EU Marine Strategy Framework Directive requirements to provide information for an assessment of the environmental status and for an estimate of the distance from, and progress towards, good environmental status, which requires to minimize human-induced eutrophication and to lower concentrations of contaminants to levels not giving rise to pollution effects,

NOTING ALSO the requirements of the Federal Law of Russian Federation on Environment Protection, Federal Law of Russian Federation on Air Protection and subordinated legal acts regarding monitoring of air quality,

IDENTIFYING the need to regularly follow up and assess progress in implementation of the requirements of the HELCOM nutrient reduction scheme established in the Baltic Sea Action Plan and updated by the commitments of the 2013 HELCOM Copenhagen Ministerial Declaration,

RECALLING the commitment of the Baltic Sea Action Plan to identify, estimate and reduce the discharges, emissions and losses of hazardous substances to achieve a Baltic Sea with concentrations of hazardous substances close to natural levels,

NOTING FURTHER the commitment by the 2013 HELCOM Copenhagen Ministerial Declaration to intensify efforts and co-operation in monitoring and assessment of airborne inputs and to reduce inputs of hazardous substances through the development of measures addressing airborne transport of hazardous substances,

NOTING FURTHERMORE, in particular, the close co-operation established with UN ECE EMEP programme on monitoring and modelling of atmospheric pollutants, on quality assurance, on data reporting and management and on the establishment of emission inventories,

DESIRING to obtain a reliable assessment of the airborne inputs of pollutants entering the Baltic Sea via air and precipitation including quantification of transboundary airborne inputs for the development of concerted actions to limit pollution of the marine environment in the Baltic Sea,

RECOMMENDS to the Governments of the Contracting Parties to the Helsinki Convention that:

1. Each Contracting Party should, on a continuous basis, collect data on the pollution of air and precipitation that can:
 - contribute to quantification and assessment of the atmospheric pollution input to the Baltic Sea and its catchment area,
 - be used for validation of models for calculations of such inputs and to assess environmental pressure,
 - support decisions on emission reduction measures,
 - be used in combination with models for verification of compliance with such measures;
2. Each Contracting Party should for this purpose have at least one monitoring station on the coast or on an island with simultaneous sampling and measurements of pollutants in air and precipitation according to the monitoring programme requirements set out below and in **Attachment 1**;
3. Each Contracting Party should annually report the collected data to the air quality data consultant at agreed deadlines in an agreed electronic format¹;
4. Each Contracting Party should report whether changes in sampling and analytical procedures have occurred and, if so, report the changes and their consequences for the data quality;
5. Each Contracting Party should at the end of each year update emission estimates of selected pollutants according to the Joint EMEP/CORINAIR Atmospheric Emission Inventory Guidebook and agreed formats and report the data to agreed deadlines²,

RECOMMENDS ALSO that all institutes involved should, wherever possible, use the procedures for sampling, analysis and quality assurance and control contained in the *EMEP Manual for Sampling and Analysis* and otherwise use procedures that have been recommended in other relevant international fora³,

RECOMMENDS FURTHER that all Contracting Parties should support development of sampling and analytical methods to improve the data quality and development of chemical transport models that will improve the quality of the assessments of environmental pressures of atmospheric pollution to the Baltic Sea area,

RECOMMENDS FINALLY that the pollutants to be monitored and for which emission inventories are to be established and updated should, as a minimum for each Contracting Party, comprise the following mandatory programme (*Attachment 1*) and that additional pollutants are monitored voluntary at some of the stations in the Baltic Sea area either on a national basis or as a joint effort of the Contracting Parties.

¹ Presently the reporting deadline is 30 September following the year of data collection and reporting format according to <http://www.nilu.no/projects/ccc/submission/index.html>

² Current deadline is 15 February two years in arrears

³ e.g. procedures required for measurements at rural background stations according to EU air quality directives

Programme for monitoring of the pollution of air and precipitation

Pollutants in precipitation¹

Pollutant type	Mandatory programme	Voluntary national or joint Programmes
Maximum sampling time ²	1 month	1 month
Precipitation	Amount	
Nutrients	NO ₃ ⁻ ; NH ₄ ⁺	total P
Main ions		Na ⁺ ; Mg ²⁺ ; Cl ⁻ ; K ⁺ ; Ca ²⁺ ; SO ₄ ⁻ ; pH; conductivity.
Metals	Cd; Pb.	Cr; Ni; Cu; Zn; As; Hg and Fe
POPs		γ-HCH (lindane).
PCBs		Congeners 28, 52, 101, 118, 138, 153, 180.
PAHs		BaP

Airborne pollutants

Pollutant type	Mandatory programme	Voluntary national or joint Programmes
Maximum sampling time ³	24 hours	1 week ⁴
Nutrients		
air – gas: NO ₂ .		
air – gas: HNO ₃ ; NH ₃ .		
air-particles: NO ₃ ⁻ ; NH ₄ ⁺ .		
or alternatively		
phase sums: (HNO ₃ + NO ₃ ⁻)		
phase sums: (NH ₃ + NH ₄ ⁺).		Total P
Metals		
Air:		Hg
particles:		Cr; Ni; Cu; Zn; As; Cd; Pb; Hg and Fe
POPs		γ-HCH (lindane)
PCBs		Congeners 28, 52, 101, 118, 138, 153, 180
PAHs		BaP

¹ Units according to the *EMEP Manual for Sampling and Analysis*

² In principle monitoring of precipitation should be performed continuously

³ In principle monitoring of air and particulate samples should be performed continuously

⁴ Daily or weekly samples can be pooled to monthly samples for analysis