



HELCOM Recommendation 37-38/2-Rev.1

This Recommendation supersedes HELCOM Recommendation 24/1 and HELCOM Recommendation 37-38/2

Adopted 16 June 2016 and
Amended 7 August 2022,
having regard to Article 20, Paragraph 1 b)
of the Helsinki Convention

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,

ACKNOWLEDGING the need to regularly follow up and assess progress in implementation of the regional nutrient input targets established in the Baltic Sea Action Plan, adopted at the 2021 HELCOM Lübeck Ministerial Meeting,

RECALLING the commitment of the Baltic Sea Action Plan to identify priority contaminants, quantify their inputs and regional sources, and develop effective national or regional measures to achieve a Baltic Sea unaffected by 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. On a continuous basis, data should be collected 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. For this purpose there should be 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. The collected data should be annually reported to the air quality data consultant at agreed deadlines in an agreed electronic format¹;
4. Whether changes in sampling and analytical procedures have occurred should be reported and, if so, report the changes and their consequences for the data quality;
5. Emission estimates of selected pollutants should be updated according to the Joint EMEP/EEA Air Pollutant 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.

¹Presently the reporting deadline is 31 July following the year of data collection and reporting format according to <http://www.nilu.no/projects/ccc/submission/index.html>

² Reporting requirements are given in respective protocols to the CLRTAP and the NEC Directive 2016/2284/EU, for the EU Member States, <https://www.eea.europa.eu/publications/emep-eea-guidebook-2019>

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

HELCOM Recommendation 37-38/2 for Air Monitoring

Attachment 1

Programme for monitoring of the pollution of air and precipitation

Pollutants in precipitation⁴

Pollutant type	Mandatory programme	Voluntary national or joint Programmes
Maximum sampling time ⁵	1 month	1 month
Precipitation	Amount	
Nutrients	NO ₃ ⁻ ; NH ₄ ⁺	total P
Main ions		Na ⁺ ; Mg ²⁺ ; Cl ⁻ ; K ⁺ ; Ca ²⁺ ; SO ₄ ²⁻ ; 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 ⁶	24 hours	1 week ⁷
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

⁴ Units according to the *EMEP Manual for Sampling and Analysis*

⁵ In principle monitoring of precipitation should be performed continuously

⁶ In principle monitoring of air and particulate samples should be performed continuously

⁷ Daily or weekly samples can be pooled to monthly samples for analysis