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Monitoring programme: Contaminants

Programme topic: Inputs

SUB-PROGRAMME: ACUTE POLLUTION

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REGIONAL COORDINATION

The monitoring of this sub-programme is: **fully coordinated**

The monitoring and data reporting are coordinated by the HELCOM Informal Working Group on Aerial Surveillance ([HELCOM IWGAS](#)) which works to implement the aerial surveillance cooperation as laid down in Chapter 7, Part 1 of the [HELCOM Response Manual](#).

PURPOSE OF MONITORING (Q4K)

Follow up of progress towards:

Baltic Sea Action Plan (BSAP)

Segments

Maritime activities

	Ecological objectives	No illegal pollution
Marine strategy framework directive (MSFD)	Descriptors	D8 Contaminants
	Criteria (<u>Q5a</u>)	8.1 Concentration of contaminants
	Pressures and impacts (<u>Q5c</u>)	Introduction of non-synthetic substances and compounds (e.g. heavy metals, hydrocarbons, resulting, for example, from pollution by ships and oil, gas and mineral exploration and exploitation, atmospheric deposition, riverine inputs), water abstraction).
	Activities (<u>Q7a</u> , <u>Q7b</u>)	Transport: Shipping
Other relevant legislation (<u>Q8a</u>)	Bonn Agreement (Agreement for cooperation in dealing with pollution of the North Sea by oil and other harmful substances)	

Assessment of: (Q4k)

State/Impacts	X	temporal trends, spatial distribution, state classification
Pressures	X	temporal trends, spatial distribution, state classification
Human activities causing the pressures	X	temporal trends, spatial distribution, state classification
Effectiveness of measures	X	temporal trends, spatial distribution, state classification

Scale of data aggregation for assessments: (Q10a)

HELCOM assessment unit Level 1: Baltic Sea	X
HELCOM assessment unit Level 2: Subbasin	
HELCOM assessment unit Level 3: Subbasins with coastal and offshore division	
HELCOM assessment unit Level 4: Subbasins with coastal WFD division	
Other	

MONITORING CONCEPTS TABLE

Coordination	Elements Q9a (Q5c)	Parameter Q9a (Q5c)	Method Q9c , Q9d	QA/QC Q9e , 9f	Frequency Q9h , 9i	Spatial resolution Q9g , 9j	Link to HELCOM core indicators	Link to MSFD GES characteristics Q5b	Spatial scope Q4i	Monitoring started Q4h	CPs monitoring
RESPONSE	Mineral oil	Input level of chemical/nutrient/pollutant from sea-based sources	HELCOM RESPONSE Manual	Other	Other	Baltic Sea		8.1.1 Concentration of contaminants	EEZ	1988 SE: 1976	All Baltic Sea coastal states have agreed to participate in the collaboration to the best of their ability.

Brief description of monitoring

Full description in [HELCOM RESPONSE Manual](#).

Element / parameter	Mineral oil / Input level of chemical/nutrient/pollutant from sea-based sources
Method	HELCOM RESPONSE Manual
QA/QC	The volume of the spills confirmed/observed as mineral oil is calculated using the Bonn Agreement Oil Appearance Code (BAOAC). The minimum value is reported.
Frequency	According to the HELCOM RESPONSE Manual Volume 1, Chapter 7, all Baltic Sea coastal states should endeavor to fly - as a minimum - twice per week over regular traffic zones including approaches to major sea ports as well as in regions with regular offshore activities. Other regions with sporadic traffic and fishing activities should be covered once per week. In general more flights are conducted during daylight compared to darkness. Coordinated Extended Pollution Control Operation (CEPCO) Flights are arranged yearly where surveillance aircraft of several countries adjoining the chosen CEPCO Flight routines have to maintain for 24 hours (or even more) a continuous surveillance flying along the prefixed flight patterns. In practice, some countries conduct more aerial surveillance than other countries.

Spatial Scope	According to the HELCOM RESPONSE Manual Volume 1, Chapter 7, each Baltic Sea coastal state operates at least in its own response region during regular national flights. In addition the States organize and participate in specific joint Coordinated Extended Pollution Control Operation (CEPCO) Flights in the Baltic Sea. Closer cooperation with neighbouring countries, within e.g. sub-regional agreements, is appreciated.
Spatial resolution	Vertical resolution varies among the sampling stations depending on bottom depth: (1) bottom to surface, (2) bottom to halocline, halocline to thermocline, thermocline to surface, (3) bottom to thermocline, thermocline to surface, (4) discrete depth layers (e.g. 100-60 m, 60-30 m, 30-0 m).

ASSESSMENT REQUIREMENTS

Monitoring requirements and gaps

Monitoring is to be carried out to fulfill assessment requirements of HELCOM ecological objectives that are specified through HELCOM core indicators. The requirements on monitoring can include number of stations, the sampling frequency and replication.

Monitoring requirements	<p>Data on accidental and illegal discharges of oil and other substances from sea-based sources is needed to assess the input of contaminants to the sea to be able to follow up the effectiveness of enforcement of international regulations.</p> <p>Good progress is being made towards reaching the objective "no illegal discharges" of the BSAP.</p> <p>Baltic Sea coastal states annually report the number of oil discharges observed in the Baltic Sea (Input quantity per area per time).</p>
Gaps	<p>For continuing efficient aerial surveillance in the Baltic Sea resources are needed for keeping up the regular flight frequency. Resources are also needed for renewing and overhaul of aircraft and necessary equipment. Improvements of existing remote sensing systems are needed so that they can function efficiently also at night and in bad weather conditions.</p> <p>Training is needed for aircrews and cooperation between countries will need to be improved even further, for example concerning diplomatic clearances.</p> <p>Sampling methods will need to be standardized to be able to use the information as evidence to court for the prosecution of offenders of oil discharge. As part of the existing monitoring, aerial surveillance could in the future also cover other substances than mineral oil.</p>

Assessment of natural variability (Q5e)

Expert opinion. The volume of the spills confirmed/observed as mineral oil is calculated using the Bonn Agreement Oil Appearance Code (BAOAC).

Targets - Adequacy for assessment of progress with targets (Art. 10) (Q6b)

This section indicates whether the programme provides suitable and sufficient data and information to enable assessment of progress towards achievement of the relevant environmental targets (using indicators identified by MS under Art. 10).

Suitable and sufficient data?	Yes
Established methods for assessment?	Yes
Adequate capacity to perform assessments?	No
Will the data and information collected enable the regular updating of targets? (Q6c)	Yes
Description of Targets (Q6d)	<p>Enforcement of international regulations – No illegal discharges.</p> <p>Illegal discharges are defined as discharges violating the provisions of MARPOL Annex I (Regulations for the Prevention of Pollution from Oil), taking also into account the status of the Baltic Sea as a special area for the purposes of MARPOL Annex I. Please note that this allows for smaller operational discharges of oil (undiluted concentration up to 15 ppm) -presuming a number of conditions listed in MARPOL Annex I are met.</p>
Gap-filling date Targets (Q6e)	Considered adequate in 2014
Plans for targets (Q6f)	No plan for additional targets

Measures - nature of the activity and/or pressure covered by the programme (spatial distribution, frequency of activity)

How the monitoring is considered adequate to identify which activities and pressures that are causing environmental degradation and how it can help identifying new measures (Q7b)

Spatial distribution/extent of activity	According to the HELCOM Response Manual, Volume 1, Chapter 7, each Baltic Sea coastal state operates at least in its own response region during regular national flights. In addition the States organise and participate in specific joint Coordinated Extended Pollution Control Operation (CEPCO) Flights in the Baltic Sea.
Intensity of activity	<p>According to the HELCOM Response Manual, Volume 1, Chapter 7, all Baltic Sea coastal states should endeavor to fly - as a minimum - twice per week over regular traffic zones including approaches to major sea ports as well as in regions with regular offshore activities. Other regions with sporadic traffic and fishing activities should be covered once per week. In general more flights are conducted during daylight compared to darkness.</p> <p>Coordinated Extended Pollution Control Operation (CEPCO) Flights are arranged yearly where surveillance aircraft of several countries adjoining the chosen CEPCO Flight routines have to maintain for 24 hours (or even more) a continuous surveillance flying along the prefixed flight patterns. In practice, some countries conduct more aerial surveillance than other countries.</p>
Temporal changes in activity	Data series on mineral oil spills are available since 1988.
Type of activity (within broad category f, e.g. fisheries, tourism/recreation)	Shipping

Measures - Adequacy dor assessments of measures (Art. 13) (Q7e)

The monitoring supports assessment of follow up measures.

Adequate data?

Established methods for assessment?

Adequate understanding of GES?

Adequate capacity to perform assessments?

Addresses activities/pressures?

Addresses effectiveness of measures?

Gap-filling data activities and measures ([Q7f](#)) Considered adequate in 2014

DATA PROVIDERS AND ACCESS

Data access point	HELCOM Map and Data service
Data type (Q10c)	Processed Data sets
Data availability (Q10c)	HELCOM Map and Data service
Data access (Q10c)	Open access
INSPIRE standard (Q10c)	
When will data become available? (Q10c)	Annually, e.g. Year 2013 data by the second half of 2014.
Data update frequency (Q10c)	Yearly
Describe how the data and information from the programme will be made accessible to the EC/EEA	Open access to data at HELCOM Map and Data service , annual reports on aerial surveillance in the Baltic Sea.
Contact points in the Contracting parties	Contact point to national monitoring programmes will be added
Has the data been used in HELCOM assessments?	Yes

References

[HELCOM RESPONSE Manual](#)

[HELCOM Recommendation 34E/4](#)

[HELCOM Recommendation 28E/12](#)

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