

Reporting requirements on sub programmes under MSFD Article 11

Reporter

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Member State

Identify the MS to which this report refers **DE**

Region

Select one from list **BAL**

Index

4: Metadata about each sub-programme

- [4g: Sub-Programme ID](#)
- [4h: Temporal scope](#)
- [4i: Spatial scope](#)
- [4j: Description Spatial Scope](#)
- [4k: Purpose](#)
- [4l: Links to programmes of other directives & conventions](#)

9: Methodology

- [9a: Elements monitored](#)
- [9b: Parameters measured](#)
- [9c: Monitoring method](#)
- [9d: Method alteration](#)
- [9e: Quality Assurance \(QA\)](#)
- [9f: Quality Control \(QC\)](#)
- [9g: Spatial resolution \(density\) of sampling](#)
- [9h: Temporal resolution \(periodicity\) of sampling](#)
- [9i: Description of Sub-programme](#)

10: Data

- [10a: Aggregation of data](#)
- [10b: Description Data Aggregation](#)
- [10c: Access to data](#)
- [10d: Description Data Access](#)

4: Metadata about each sub-programme

4g: Sub-Programme ID

Provide a unique identifier for sub programme. Use sub(region) and MS code (e.g. BALDE) plus MS-defined alpha-numeric code (e.g. MADIT-D08-01)

BALDE_Sub_064

4h: Temporal scope

Provide the start date of the sub-programme (past or future) and, if appropriate, an end date, or indicate the programme is ongoing:

From: (YYYY-MM-DD e.g. 2011-01-29)	To: (YYYY-MM-DD e.g. 2013-12-31)
1990	9999

4i: Spatial scope

Indicate the coverage of the sub-programme according to the four jurisdictional zones of MSFD Marine Waters (or outside this, either landward or beyond marine waters if appropriate, e.g. for pressures).

- | | |
|--|---|
| <input checked="" type="checkbox"/> Terrestrial part of MS | <input checked="" type="checkbox"/> EEZ (or similar) |
| <input type="checkbox"/> Transitional waters (WFD) | <input type="checkbox"/> Continental shelf (beyond EEZ) |
| <input checked="" type="checkbox"/> Coastal waters (WFD) | <input checked="" type="checkbox"/> Beyond MS Marine Waters |
| <input checked="" type="checkbox"/> Territorial waters | |

4j: Description Spatial Scope

Briefly describe the rationale for the geographic scope of the programme (e.g. in relation to relevant environmental characteristics, to pressures or to relevant activities and measures). Free text or URL web link or section in paper report

EMEP erstellt Depositionskarten für die gesamte Nord- und Ostsee (zukünftig mit einer Auflösung von 0,1° x 0,1° Long/Lat Emissionsquellen befinden sich an Land, mobile Quellen (Schifffahrt werden auch berechnet)

4k: Purpose

For what purpose is this sub-programme aimed at collecting data and information?

- Environmental state and impacts
 Pressures

- Human activities causing the pressures
 Effectiveness of measures

4l: Links to programmes of other directives & conventions

If monitoring for other Community legislation or international agreements is contributing to your MSFD programme (as indicated in Question 8a), give details as follows:

- Name of other programme
- A specific URL web link(s) to where the information required for each part of Question 9 can easily be found and is directly relevant for your marine waters.
- Describe how the existing monitoring will contribute to MSFD needs including how it is integrated into your MSFD programme. This field can also be used to link to a national programme. If the information required for each part of Question 9 is maintained on a permanent official web site, Question 9 does not need to be completed. Free text (for programme name and description) and URL web link(s) or indicate Not relevant (to this sub-programme).

In Deutschland werden die Monitoringanforderungen aller Meeres-relevanten EG-Richtlinien und internationalen Übereinkommen in einem gemeinsamen nationalen Messprogramm (Bund-/Länder-Messprogramm) von den zuständigen Institutionen des Bundes und der Länder umgesetzt. Die MSRL-Sub-Programme des nationalen Monitorings bedienen somit zu großen Teilen auch die Sub-Programme des Helsinki-Übereinkommens. Diese werden im HELCOM-Monitoring-Manual (<http://www.helcom.fi/action-areas/monitoring-and-assessment/monitoring-manual>) beschrieben, das sich derzeit noch in der Erstbearbeitung befindet. Nach dessen Fertigstellung sollen Verlinkungen zwischen den nationalen und den regionalen Sub-Programmen hergestellt werden. Weiterführende Informationen zum nationalen Monitoring sind im Kennblatt Schadstoffe unter <http://www.blmp-online.de/Seiten/Monitoringhandbuch.htm> mit dem dort angegebenen Stand zu finden. Nach einem Systemwechsel werden ab Mitte 2015 aktuelle Informationen unter <http://mhb.meeresschutz.info> bereitgestellt. Die berichtsrelevanten Informationen zu diesem Subprogramm Schadstoff-Einträge - über die Atmosphäre sind in aggregierter Form unter <http://mhb.meeresschutz.info/de/monitoring/sub-programm/bal/64.html> zu finden. Sie werden unabhängig vom Berichtszyklus fortlaufend aktuell gehalten.

9: Methodology

9a: Elements monitored

Which elements (ecosystem components, pressures from Annex III) are monitored?

List the specific element (e.g. particular species or contaminant) within the broad categories reported under Question 5c.

|| Das Subprogramm besteht aus den/dem folgenden Messprogramm/en (=MP): MP_092 (Atmosphärische Deposition (Ostsee)) und MP_124 (Atmosphärische Schadstoffemissionen (Ostsee)) || || MP_092 ||
 Gemessene nasse Deposition von ausgewählten Schadstoffen (Pb, Cd, Hg, As, Ni, Cr, Zn, Cu; B(a)P, B(a)A, Summe B(b+j+k)F, I(c,d)P, DB(a)A; g-HCH); Modellierte Gesamtdeposition (trocken & nass) von ausgewählten Schadstoffen (Pb, Cd, Hg, B(a)P, PCDD/F, HCB) mit dem EMEP-Modell. || MP_124 ||
 Emissionen von Schwermetallen (Pb, Cd, Hg, As, Cr, Cu, Ni, Se, Zn) und POPs (PCDD/PCDF, PAHs, HCB, HCH, PCBs),

9b: Parameters measured

What parameters of the monitoring elements are measured?

State impact

Species distribution

- Species distributional range/pattern
 Migration patterns

Species population_size

- Population size (abundance)
 Population size (biomass)

Habitat extent

- Areal extent of habitat
 Area of dead biota (e.g. rhizomes or dead "matte" of Posidonia meadows, dead mael or coral)

Habitat distribution

- Habitat distributional range/pattern

Habitat condition biological

- Species present (whole community or selected species only)
 Species abundance (numbers or cover)
 Species abundance (biomass)
 Concentration of Chlorophyll a
 Proportion of habitat covered by habitat-defining species (e.g. a seagrass, biogenic reef-forming species)
 Stability of edges to community (e.g. of seagrass, biogenic reefs)

Habitat condition physical-chemical

- Temperature
 Salinity
 Tidal range/level
 Current velocity
 Wave action
 Concentration of oxygen
 Transparency / turbidity of water column
 pH
 pCO₂ - alkalinity
 Marine climatology

Habitat impacts

- Mortality/damage rates to species from a pressure
 Extent of man-made/artificial habitat

Species population characteristics

- Size of individuals (length or weight)

<input type="checkbox"/> Sex <input type="checkbox"/> Age at maturity <input type="checkbox"/> Diet <input type="checkbox"/> Life history stage (e.g. egg, juvenile, adult) <input type="checkbox"/> Reproduction rate <input type="checkbox"/> Survival rate <input type="checkbox"/> Mortality rate	Species impacts <input type="checkbox"/> Composition and number of retained/landed catch <input type="checkbox"/> Composition and number of discards <input type="checkbox"/> Composition and number of incidental/by-catch <input type="checkbox"/> Mortality/injury rates by a pressure (e.g. ship strikes, litter entanglement, noise) <input type="checkbox"/> Predation rates on eggs, juveniles and/or adults <input type="checkbox"/> Disturbance rates by human activities <input type="checkbox"/> Alterations to habitat (e.g. to breeding areas)	<input type="checkbox"/> Bathymetric depth <input type="checkbox"/> Physical structure of habitat (e.g. sediment characteristics, topographic structure) <input type="checkbox"/> Hydrological conditions of habitat <input type="checkbox"/> Freshwater input rates from rivers
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Pressures

Pressure input	Pressure output
<input checked="" type="checkbox"/> Input level of chemical/nutrient/pollutant from atmosphere <input type="checkbox"/> Input level of chemical/nutrient/pollutant from land-based sources <input type="checkbox"/> Input level of chemical/nutrient/pollutant from sea-based sources	<input type="checkbox"/> Spatial distribution/extent of pressure <input type="checkbox"/> Concentration of chemical/nutrient/pollutant in biota <input type="checkbox"/> Concentration of chemical/nutrient/pollutant in water column <input type="checkbox"/> Concentration of chemical/nutrient/pollutant in/on seabed substrate <input type="checkbox"/> Quantity and type of non-indigenous species <input type="checkbox"/> Quantity and type of microbial pathogens <input type="checkbox"/> Quantity and type of litter items <input type="checkbox"/> Quantity and type of microparticles <input type="checkbox"/> Quantity and type of litter in animal stomachs <input type="checkbox"/> Intensity and temporal frequency of underwater noise

Activity	Other
<input type="checkbox"/> Spatial distribution/extent of activity <input type="checkbox"/> Intensity of activity <input type="checkbox"/> Temporal changes in activity <input type="checkbox"/> Type of activity (within broad category of, e.g. fisheries, tourism/recreation)	<input checked="" type="checkbox"/> Other parameter

9c: Monitoring method

Provide a reference to a published method or, if unpublished, describe the method used.

|| MP_092 || MSC-E <http://www.msceast.org/> NILU <http://www.nilu.no/projects/ccc/index.html> HELCOM <http://helcom.fi/Recommendations/Rec%202024-1.pdf> || MP_124 || EMEP: Centre of Emission Inventories and Projections (CEIP) <http://www.ceip.at/>

9d: Method alteration

If this field is left blank it is assumed the method used is according to the published method given in Q9c.

|| MP_092, MP_124 ||

9e: Quality Assurance (QA)

In addition to a specified method, is there any additional Quality Assurance used?

- Biological Effects Quality Assurance in Monitoring Programmes
 Helsinki Commission Cooperative Monitoring in the Baltic Marine Environment manual of measurement protocols
 ICES Data Centre Data Type Guides
 IOC Manual of Quality Control Procedures for Validation of Oceanographic Data
 Joint Global Ocean Flux Study core measurement protocols
 Quality Assurance of Information for Marine Environmental Monitoring in Europe
 National standard (specify)
 Other standard (specify)
 Unknown

Description of Other (if selected):

|| MP_092 || Modellierung: Meteorological Synthesizing Centre East of EMEP (MSC-E):<http://www.msceast.org/>; Messungen: Chemical Coordinating Centre of EMEP (CCC):
<http://www.nilu.no/projects/ccc/qa/index.htm>; OSPAR CAMP:
http://www.ospar.org/content/content.asp?menu=00910301410000_000000_000000; HELCOM
<http://helcom.fi/Recommendations/Rec%202024-1.pdf> || MP_124 || Nationaler Standard: zentralisiertes System Emissionen (ZSE) mit implementierter QS/QA EMEP: Centre of Emission Inventories and Projections (CEIP): <http://www.ceip.at/>

9f: Quality Control (QC)

What type of Quality Control is used?

- Delayed mode validation on the data
 No validation on the data
 Real-time plus delayed mode validation on the data
 Real-time validation on the data
 Other type of QC (specify)
 Unknown

Description of Other (if selected):

|| MP_092 || || MP_124 || Nationaler Standard: zentralisiertes System Emissionen (ZSE) mit implementierter QS/QA ; EMEP: Centre of Emission Inventories and Projections (CEIP): <http://www.ceip.at>
|| Additional Data || DelayedValidation, OtherQC

9g: Spatial resolution (density) of sampling

What is the proportion of the geographic scope (given in Q4i) which is covered by sampling? This question is intended to provide a broad indication only of expected sampling density, as information on actual sampling locations, once collected, should be linked to Art. 19.3 on access to the monitoring data]

Proportion of geographic scope covered by sampling (%)
100 %

Approximate number of samples expected to be taken from the assessment area (No./year)

|| MP_092 || EMEP modelliert 1x jährlich, gemessen wird an den 2 Messstationen monatlich, die Messdaten werden zur Validierung des Modells genutzt; || MP_124 || In die EMEP-Berichte fließen die Ergebnisse der jährlichen Berechnung der Emissionen ein.

9h: Temporal resolution (periodicity) of sampling

What is the temporal frequency of the sub-programme?

- | | | | |
|--|------------------------------------|--------------------------------------|--|
| <input type="checkbox"/> Every 6 years | <input type="checkbox"/> 6 monthly | <input type="checkbox"/> Weekly | <input type="checkbox"/> Oneoff |
| <input type="checkbox"/> Every 3 years | <input type="checkbox"/> 3 monthly | <input type="checkbox"/> Daily | <input type="checkbox"/> As needed |
| <input type="checkbox"/> Every 2 years | <input type="checkbox"/> Monthly | <input type="checkbox"/> Hourly | <input type="checkbox"/> Other (specify) |
| <input checked="" type="checkbox"/> Yearly | <input type="checkbox"/> 2 weekly | <input type="checkbox"/> Continually | <input type="checkbox"/> Unknown |

Description of Other (if selected):

9i: Description of Sub-programme

Where the information for Questions 9a-9h varies within the sub-programme (e.g. spatially or temporarily), provide details. This could include, for example:

- variation in relation to risk across the area (e.g. coastal/offshore, pressure-related)
- Variation due to differing management regimes (e.g. MPAs or other management zones)

10: Data

10a: Aggregation of data

At which scale can the data from the sub-programme be aggregated for environmental assessments?

- Subregion Region EU Other (specify) Unknown

Description of Other (if selected):

|| MP_092 || Ostsee: PLC-Sub-divisions, Auflösung bisher 50 x 50km; ab 2017 0.1°x0,1°Lat/Long; EMEP Grit als kleinste mögliche Auflösung || MP_124 || || Additional Data || Other, Region, Subregion, EU

10b: Description Data Aggregation

If 'other' is selected, describe the scale. If the data cannot be aggregated (beyond the national scale), give reasons?

|| MP_092 || Ostsee: PLC-Sub-divisions, Auflösung bisher 50 x 50km; ab 2017 0.1°x0,1°Lat/Long; EMEP Grit als kleinste mögliche Auflösung || MP_124 || || Additional Data || Other, Region, Subregion, EU

10c: Access to data

Access to data

Nature of data/information to be made available. Select all relevant from List:

- | | |
|---|--|
| <input type="checkbox"/> Unprocessed/raw data | <input checked="" type="checkbox"/> Data products |
| <input type="checkbox"/> Processed data sets | <input type="checkbox"/> Simulated (modelled) data |

What method/mechanism will be used to make the data available? Select one from List

- | | |
|--|---|
| <input type="radio"/> Providing URL to view data | <input type="radio"/> Provide location of data in national data centre |
| <input type="radio"/> Providing URL to download data | <input checked="" type="radio"/> Provide location of data in international data centre (e.g. RSC) |

Will the EC/EEA have use rights? Select one from List:

- | | |
|---|--|
| <input checked="" type="radio"/> Open access | <input type="radio"/> Restricted by specific licence |
| <input type="radio"/> Moratorium | <input type="radio"/> Data will not be available |
| <input type="radio"/> Restricted by general licence | |

Which INSPIRE standard is/will be used? Select from List

- | | |
|---|--|
| <input type="checkbox"/> Hydrography | <input type="checkbox"/> Habitats and biotopes |
| <input type="checkbox"/> Protected sites | <input type="checkbox"/> Land cover |
| <input type="checkbox"/> Agriculture and aquaculture facilities | <input type="checkbox"/> Land use |
| <input type="checkbox"/> Area management/restriction/regulation zones and reporting units | <input type="checkbox"/> Oceanographic geographical features |
| <input checked="" type="checkbox"/> Environmental monitoring facilities | <input type="checkbox"/> Sea regions |
| <input type="checkbox"/> Geology | <input type="checkbox"/> Species distribution |

When will the data first become available? Date: (YYYY-MM e.g 2013-02)

2014-09

How frequently are the data expected to be updated thereafter? Select one from List:

- | | | | |
|--|------------------------------------|--------------------------------------|--|
| <input type="checkbox"/> Every 6 years | <input type="checkbox"/> 6 monthly | <input type="checkbox"/> Weekly | <input type="checkbox"/> Oneoff |
| <input type="checkbox"/> Every 3 years | <input type="checkbox"/> 3 monthly | <input type="checkbox"/> Daily | <input type="checkbox"/> As needed |
| <input type="checkbox"/> Every 2 years | <input type="checkbox"/> Monthly | <input type="checkbox"/> Hourly | <input type="checkbox"/> Other (specify) |
| <input checked="" type="checkbox"/> Yearly | <input type="checkbox"/> 2 weekly | <input type="checkbox"/> Continually | <input type="checkbox"/> Unknown |

Description of Other and/or National standard (if they are selected), please indicate which standard the description covers:

10d: Description Data Access

Describe how the data and information from the programme will be made accessible to the EC/EEA, indicating whether this is in place already or under development. Free text or URL web link or section in paper report

Wie im Rahmen der Umsetzung von Artikel 19.3 der MSRL im CIS-Prozess abgestimmt, werden alle Daten und Produkte via Metadaten im nationalen Metadatenkatalog (<http://geoportal.bafg.de/wasserblick-csw-client/?lang=de&page=1&searchtext=&hits=50&service=1&modell=1&data=1&other=1&id=bfg>) erfasst und zugänglich gemacht. Die Bezugsquelle für die Daten aus den nationalen Messprogrammen wird in den Metadaten festgelegt. Die HELCOM- und OSPAR-relevanten Daten aus den hydrografischen, biologischen und chemischen Messprogrammen werden regelmäßig dem ICES (international data centre) übermittelt. Die EEA

kann diese Daten wie bisher über den ICES beziehen. Die Bezugswege für die darüber hinaus gehenden Daten und Produkte befinden sich im Aufbau. Die entsprechenden Metadaten werden die Bezugsquellen ausweisen.