MEETING DOCUMENT

**Task Group Management (TG-M 21-1)**

28 January 2021

Online meeting

**Agenda Item: 4. Implementation of the Leeuwarden Declaration**

**Subject: Draft Marine litter strategic considerations and status/inventory - Germany**

**Document No.:** TG-M 21-1/4/4

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**Submitted by: Germany**

This document contains the German addition to a marine litter inventory (see TG-M 21-1/4/2)

**Proposal:** The group is invited to discuss the document and integration to TG-M 21-1/4/2 (see proposal in TG-M 21-1/4/2)

# **Marine Litter in the Wadden Sea, background, status and possible future strategy and activities of TWSC.**

Marine litter pollution is a global problem. Marine litter poses a serious ecological, health and economic burden to oceans and coastal ecosystems. For decades, the oceans were used as landfills.

Germany:

1. **Policy**

In the 1970s and 1980s, regulations were introduced to prevent litter from entering the marine environment globally e.g. was the introduction of plastic waste into the oceans by ships banned as early as 1988 in Annex V of the International Convention for the Prevention of Pollution from Ships (MARPOL).

**EU Marine Strategy Framework Directive**

In 2008 EU Marine Strategy Framework Directive (MSFD) was introduced with the goal to maintain or achieve Good Environmental Status (GES) of EU marine waters by 2020. In Annex I of the Directive, eleven qualitative descriptors describe what the environment will look like when GES is achieved, among them descriptor 10 “marine litter”.

The implementation of the MSFD includes (1) an assessment of the baseline situation (“Initial Assessment”),

(2) the establishment of indicators to assess the situation on a regular basis, (3) the setting of targets for the GES, (4) the introduction of monitoring to assess whether or not GES has been achieved and (5) development and implementation of measures.

As described by the European Commission, a task group - *MSFD Task Group 10 on Marine Litter* - consisting of experts nominated by EU Member States was created in 2009, in order to review the technical state-of-the-art[[1]](#footnote-1) and to support the development of criteria and methodological standards on GES of marine waters[[2]](#footnote-2).

(1) As the characteristics and pressures of the North Sea ecosystem are not within the range of good status in the available assessments under Community law, OSPAR and TWSC, the German North Sea does not achieve GES (Initial Assessment 2012). Following this first assessment, the reports delivered by the member states have been analysed for their technical content. The so-called in-depth assessment[[3]](#footnote-3) has been used in order to identify problematic issues and to plan a way forward. The initial assessment, as well as the environmental objectives, were reviewed and updated in 2018. All information regarding the implementation of the MSFD in Germany including information on status, indicators, targets, monitoring and measures is available at meeresschutz.info.de.

(2) *Descriptor 10: Properties and quantities of marine litter do not cause harm to the coastal and marine environment. More detailed indicators (Commission Decision (EU) 2017/848) as followsCriteria*

|  | *Priority* |  |
| --- | --- | --- |
| D10C1 | Primary | The composition, amount and spatial distribution of litter on the coastline, in the surface layer of the water column, and on the seabed, are at levels that do not cause harm to the coastal and marine environment. Member States shall establish threshold values for these levels through cooperation at Union level, taking into account regional or subregional specificities |
| D10C2 | Primary | The composition, amount and spatial distribution of micro-litter on the coastline, in the surface layer of the water column, and in seabed sediment, are at levels that do not cause harm to the coastal and marine environment Member States shall establish threshold values for these levels through cooperation at Union level, taking into account regional or subregional specificities. |
| D10C3 | Secondary | The amount of litter and micro-litter ingested by marine animals is at a level that does not adversely affect the health of the species concerned. Member States shall establish threshold values for these levels through regional or subregional cooperation. |
| D10C4 | Secondary | The number of individuals of each species which are adversely affected due to litter, such as by entanglement, other types of injury or mortality, or health effects. Member States shall establish threshold values for the adverse effects of litter, through regional or subregional cooperation. |

For supporting the implementation of the D10 MSFD a Technical Group on Marine Litter (“*TG Litter*”) was set up on request by the EU Member States under the MSFD Common Implementation Strategy. Aim and purpose of TG Litter is exchange of information, discussion forum, providing guidance and to give advice to policy. Importantly, it acts as interface between science and policy. It involves the Regional Sea Conventions, like OSPAR, and supports EU global commitments, such as G7, G20 and UN activities. A very intensive cooperation exists between the Netherlands, Denmark and Germany regarding marine litter, in TG Litter but also in the OSPAR marine litter group (ICG ML).

The *TG Litter* has produced the following reports:

* [Marine Litter - Technical Recommendations](https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=438&titre_chap=TG%20Litter&titre_page=Marine%20Litter%20-%20Technical%20Recommendations)
* [Guidance for the Monitoring of Marine Litter](https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=439&titre_chap=TG%20Litter&titre_page=Guidance%20for%20the%20Monitoring%20of%20Marine%20Litter)
* [Identifying Sources of Marine Litter](https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=436&titre_chap=TG%20Litter&titre_page=Identifying%20Sources%20of%20Marine%20Litter)
* [Harm caused by Marine Litter](https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=437&titre_chap=TG%20Litter&titre_page=Harm%20caused%20by%20Marine%20Litter)
* [Monitoring of Riverine Litter](https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=440&titre_chap=TG%20Litter&titre_page=Monitoring%20of%20Riverine%20Litter)
* [Top Marine Beach Litter Items](https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=441&titre_chap=TG%20Litter&titre_page=Top%20Marine%20Beach%20Litter%20Items)
* [EU Marine Beach Litter Baselines](https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=452&titre_chap=TG%20Litter&titre_page=EU%20Marine%20Beach%20Litter%20Baselines)
* [Marine Litter Threshold Values](https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=453&titre_chap=TG%20Litter&titre_page=Marine%20Litter%20Threshold%20Values)
* [EU Threshold Value for Macro Litter on Coastlines](https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=454&titre_chap=TG%20Litter&titre_page=EU%20Threshold%20Value%20for%20Macro%20Litter%20on%20Coastlines)

The TG Litter is presently revising its Guidelines on monitoring litter and is in the process of collecting data with the aim of producing baselines for seabed, sea surface and microplastic litter. It has recently produced reports on “harm” caused by marine litter, baselines for beach litter and has produced a report on “[A European Threshold Value and Assessment Method for Macro Litter on Coastlines](https://publications.jrc.ec.europa.eu/repository/bitstream/JRC121707/coastline_litter_threshold_value_report_14_9_2020_final.pdf)”. It is also producing a new joint list of litter items for monitoring in the EU.

(3) At the EU level, threshold values have been developed for litter on the coast and litter in the stomachs of fulmars.

Germany developed seven national overarching environmental objectives (Umweltziele, UZ) to achieve GES in the marine waters. Each of which is concretized by a set of operational objectives (operative Ziele), with all environmental objectives serving to achieve GES for descriptors 1, 4 and 6. The environmental objectives were reviewed and updated in 2018.

The environmental goal regarding marine litter is UZ 5 Oceans without waste pollution with three operational goals, which are as follows

1. Continuously reduced inputs and a reduction in the amount of waste already present lead to a significant reduction in waste harmful to the marine environment on beaches, on the sea surface, in the water column and on the seabed. Indicators of this are the number of litter items of different materials and categories.
2. Detected harmful waste in marine organisms (especially from microplastics) is approaching zero in the long term. The indicator for this is litter in bird stomachs (e.g. fulmar) and other indicator species.
3. Other adverse ecological effects (such as entanglement and strangulation in litter items) are reduced to a minimum. Indicators for this are the number of entangled birds in breeding colonies and the records of entangled birds and other indicator species.

Other indicators are currently being developed in research and development projects.

(4) See 2. Monitoring

(5) The environmental objectives form the basis for the development of measures. In Germany, these measures are included in a so-called [programme of measures (POM](https://www.meeresschutz.info/berichte-art13.html)). The POM is being updated at the moment (2021).

The measures cover the following topics:

1. Anchoring the topic of marine litter in educational objectives, curricula and teaching materials

2. Modification/substitution of products taking into account an eco-balanced overall consideration

3. Avoidance of the use of primary microplastic particles

4. Reduction of inputs of plastic waste, e.g. plastic packaging, into the marine environment

5. Waste related measures on fishing nets and gear

6. Establishment of the "Fishing for Litter" concept

7. Reduction of already existing waste in the sea

8. Reducing the amount of plastic through municipal regulations

9. Reduction of the emission and input of microplastic particles

In Germany, the Round Table Marine Litter (“Runder Tisch Meeresmüll”) supports the coordinated implementation of the MSFD measures on marine litter (as well as the regional action plans on OSPAR). It brings together approx. 130 experts and stakeholders from the fields of fishing, shipping, industry (plastics, cosmetics, tires), science, education, tourism, environmental associations, authorities, politics and art and deals with measures on the national as well as on regional and local levels. Information on the progress of the Round Table's work and the wide range of activities undertaken by its members is available at http://www.muell-im-meer.de.

There is a very close cooperation between Germany, The Netherlands and Denmark on measures within the OSPAR ICG-ML (see OSPAR RAP below).

**OSPAR**

In the Bergen Statement (2010) the OSPAR Ministers declared, that “*We note that quantities of litter in many areas of the North-East Atlantic are unacceptable, and therefore we will continue to develop reduction measures and targets, taking into consideration an ambitious target resulting in a reduction in 2020*”. In the Strategy for the protection of the Marine Environment of the North East Atlantic for the years 2010-2020 was an OSPAR objective for marine litter described: “*to substantially reduce marine litter in the OSPAR maritime area to levels where properties and quantities do not cause harm to the marine environment*”. This OSPAR objective is in line with D10 MSFD.

In 2014 the [Regional Action Plan (RAP, 2014 - 2021) for Prevention and Management of Marine Litter in the North-East Atlantic](https://www.ospar.org/work-areas/eiha/marine-litter/regional-action-plan) was adopted, which deals with the prevention and management of marine litter. It sets out the policy context for OSPAR’s work on marine litter, describes the various types of actions that OSPAR will work on over the coming years and provides a timetable to guide the achievement of these actions. The RAP is an outstanding example for regional effort supporting multiple regional and global commitments, as it also serves to implement the MSFD, more specifically to achieve the GES with regard to marine litter.

The RAP identifies a number of actions from small to large scale (with e.g. transboundary character), these actions should also be considered in the national MSFD POM.

An Intersessional Correspondence Group on Marine Litter (ICG ML) deals with the work on marine litter on OSPAR level. The three Wadden Sea states work closely together in this group. ICG ML is, amongst others, presently building up to its QSR (Quality Status Report) 2023 and is also presently updating its monitoring guidelines ([Coordinated Environmental Monitoring Programme, CEMP](https://oap.ospar.org/en/ospar-monitoring-programmes/cemp/)),, developing new indicators (e.g. microplastics in sediments) and revising its RAP.

**EU Directive on Single Use Plastics (2019/904/EU)**

From 2021, single-use plastic products (that have alternatives made from other materials) will be banned e.g. cotton swabs, plastic cutlery and plates, drinking straws, stirring sticks, balloon holders, cups and food containers made of polystyrene for immediate consumption. In addition, the manufacturers of food containers, foils, plastic bottles, cups, plastic bags, wet wipes, balloons and tobacco products as well as fishing gear will take a share in the costs of cleaning, transport and disposal of these products (extended producer responsibility). Furthermore, recycling should be improved and there should be more emphasis on information and awareness raising among consumers to promote responsible consumer behavior.

**Further EU regulations**

Further EU regulations target a variety of entry routes for marine litter and contain relevant specifications for reducing marine litter.

* Waste Framework Directive (2008/98/EC)
* Directive on the Reduction of the Consumption of Light Plastic Carrier Bags (2015/720/EU)
* Directive on port reception facilities for the delivery of waste from ships (2019/883)
* In addition, some legislative acts of the European Union are being revised, also with regard to their relevance for marine litter.
1. **Monitoring**

Monitoring of marine litter in Germany is dealt with at the Federal/State level in the working group “Erfassen und Bewerten (ErBe)[[4]](#footnote-4)”

(data collection and evaluation) and its subordinate specialist group “Fach AG Abfälle im Meer” (marine litter). Monitoring on marine litter on beaches and in the stomachs of Fulmars in the Wadden Sea follows the methods agreed at OSPAR level. Monitoring of litter on the seabed follows a method developed by ICES and is used during fish surveys. The suitability of further monitoring is currently investigated, addressing aspects like e.g. mesolitter on beaches, remote sensing of litter, (micro-)litter in fish and marine mammals, entanglement of northern gannets in a breeding colony on the island of Helgoland and occurrence of paraffin wax. The aim is the development of a coherent monitoring for the assessment of all criteria under D10 of the MSFD (EU) 2017/848.

OSPAR marine litter experts are part of the EU Technical Group on Marine Litter (TG Litter) ensuring that methods are aligned and used in the wider European and global context. As described above ICG ML is currently updating its monitoring guidelines (Coordinated Environmental Monitoring Programme, CEMP). Currently assessed by ([OSPAR Intermediate assessment 2017](https://oap.ospar.org/en/ospar-assessments/intermediate-assessment-2017/pressures-human-activities/marine-litter/)).

I. Beach Litter

There are seven survey sites at the German Wadden Sea coastline[[5]](#footnote-5); at each survey site all litter items on a 100-m stretch of coastline should be recorded four times a year using the OSPAR beach litter monitoring protocol. Monitoring is taking place since 2002

II. Seabed Litter

Litter data is gathered by existing fisheries trawl surveys; the data is submitted to the International Council for the Exploration of the Sea (ICES), which holds these data. Seafloor litter monitoring data, generated through existing fisheries trawl surveys, was requested from 2012 onwards.

III. Plastic Particles in Fulmar stomachs

Corpses of dead beached birds or accidentally killed specimens are mostly collected by volunteer networks and processed at experienced laboratories. Stomach contents are taken and sorting under a binocular microscope.

1. **Clean-up activities**

There is a wide variety of activities on national, regional and local level on the topic of marine litter that are relevant to the Wadden Sea. The following are only examples.

An overview of some of the activities in Germany related to marine litter is given on the [website of the German round table marine litter](https://muell-im-meer.de/aktivitaeten). Here the organisations represented at the round table, are given the opportunity to list their own activities related to marine litter. The actions can be assigned to the following subject areas[[6]](#footnote-6):

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* Identification of sources and transport routes for recommendations for action
* Campaigns on top litter items / single-use items
* Product design, reduction / optimization of packaging
* Returnable / return system
* Waste prevention, waste management and waste treatment
* Avoidance of the industrial use of microplastic particles
* Reduction of the entry of microplastic particles
* Biodegradability of plastics
* Fishing / aquaculture
* General information campaigns / educational campaigns
* Educational projects / educational material
* Competitions / exhibitions
* Knowledge transfer
* Cleaning actions/Clean-up activities
* Shipping
* Others

Exemplary description of the clean-up activities

General note: Many coastal towns regularly clean their beaches and coasts of marine litter. Flotsam and jetsam contains large amounts of litter. The Schleswig-Holstein Agency for Coastal Defence, National Park and Marine Conservation (LKN.SH) regularly collects and disposes of the litter in the drift line on the state-owned dikes, especially after storm events. In Lower-Saxony this is carried out by the ‘Deichverbände’, corporative associations for coastal protection. In the Hamburg Wadden Sea this is carried out by Hamburg Port authority (HPA).

In Schleswig-Holstein the beach clean-up events take place for the most part outside of the Wadden Sea National Park. In Lower Saxony and Hamburg, beach clean-up events mainly take place on the islands and thus in the Wadden Sea National Park. The German National Park Administrations have published some material on that subject, like guidelines on “Coastal Cleanups in the Wadden Sea National Park”, a brochure on beach garbage boxes or an information brochure on paraffin finds on the beaches.

Many coastal towns and organisations participate in the annual Coastal Cleanup Day. Amongst others, NABU (Naturschutzbund Deutschland e. V.; a green NGO) is committed to this nationwide[[7]](#footnote-7).

On all East-Frisian islands, in some areas of the mainland in Lower-Saxony and at St. Peter-Ording and Büsum in Schleswig-Holstein guests can dispose of marine litter that they may collect on the tideline or on the beaches in the "beach garbage boxes". But these should not to be used for the disposal of marine litter from clean-up events. Due to the large quantities of litter from these events, the disposal must be (and is) organised independently.

Fishing for litter

The “Fishing for litter” project offers fishers the opportunity to deposit litter that is caught in their nets as bycatch in a number of fishing ports in Germany. Containers are available here for disposal free of charge. The litter is examined more closely to obtain information on its composition and origin. These findings can be used to develop measures to reduce the discharge of litter into the sea. Fishing for Litter at the German North Sea coast is currently financed by EU-funds (EMFF), flanked by funding from Schleswig-Holstein and Lower-Saxony. The initiative is coordinated and implemented by NABU[[8]](#footnote-8)

Currently up to 9 harbours on the German North Sea coast with 131 vessels participating in this project (as of 2020).

1. **Prevention**

The German Federal Ministry of Research is currently funding a major research focus on “Plastics in the Environment” (the research focus is not only but it also includes prevention). A wide variety of issues are being investigated in a total of 18 consortia[[9]](#footnote-9).

A lot of prevention is done via communication and education. In this way, the entry of litter into the seas should be reduced.

General communication on marine litter on various online websites of the responsible authorities, but also by NGOs (like NABU[[10]](#footnote-10), BUND[[11]](#footnote-11), WWF[[12]](#footnote-12)) etc. Also noteworthy is the website of the EUCC - The Coastal Union Germany e.V. (<http://meeresmuell.de/>).

The aim of such website is: connect actors with each other; present the activities of authorities, schools, NGOs, associations and scientific institutions; provide information on public actions and events in which residents and tourists can participate.

There are numerous information centers in and for the Wadden Sea National Parks in Germany that offer good and comprehensive information on the topic of marine litter. The centers offer e.g. ‘Marine Litter Research Boxes’ or a learn programme on marine litter, which can be booked by school classes and other groups on request.

Particular attention is also paid to educational measures in the fisheries and shipping sectors:

* -Since February 2017, one-day training events on the subject of marine litter are organised by LKN-SH once a year with the 2nd year of the fishing school for coastal fishing and small deep-sea fishing in Rendsburg, Schleswig-Holstein. They are held in the Schleswig-Holstein Wadden Sea and in the Multimar Wattforum, Tönning.
* - In October 2019, a course on "Marine Environmental Awareness" (<https://www.prosea.info/marine-awareness/>) was provided on the Elsfleth campus of the Jade University, Lower-Saxony. Students from nautical science, maritime transport as well as port management took part. The aim of the training program was to form a concrete basis for [marine awareness](https://www.prosea.info/marine-awareness/) that is needed to take personal responsibility in the transition towards a sustainable maritime sector. The course was initiated by the Lower Saxony Water Management, Coastal Defence and Nature Conservation Agency in cooperation with the Jade University and given by the Dutch non-profit organization ProSea from the Netherlands. Further courses are planned.
1. **Communication / Education**
1. Marine Strategy Framework Directive - Task Group 10 Report - Marine Litter, 2010 [↑](#footnote-ref-1)
2. Criteria and methodological standards on GES of marine waters; Commission Decision 2010/477/EU, this decision was repealed by Commission Decision (EU) 2017/848 [↑](#footnote-ref-2)
3. In-Depth Assessment of the EU Member States' Submissions for the Marine Strategy Framework Directive under articles 8, 9 and 10, 2014 [↑](#footnote-ref-3)
4. Reports produced by “ErBe” are presented here <https://www.meeresschutz.info/msrl.html> [↑](#footnote-ref-4)
5. Sylt (island, SH), Scharhörn (island, HH), Minsener Oog (island, LS), Juist (LS), Sylt Hörnum North (SH), Mellum West (LS), Juist Wilhelmshöhe (LS) [↑](#footnote-ref-5)
6. <https://muell-im-meer.de/aktivitaeten>; only in German [↑](#footnote-ref-6)
7. [www.nabu.de/natur-und-landschaft/aktionen-und-projekte/meere-ohne-plastik/cleanup/index.html](http://www.nabu.de/natur-und-landschaft/aktionen-und-projekte/meere-ohne-plastik/cleanup/index.html) [↑](#footnote-ref-7)
8. <https://www.nabu.de/natur-und-landschaft/aktionen-und-projekte/meere-ohne-plastik/fishing-for-litter/index.html> [↑](#footnote-ref-8)
9. <https://bmbf-plastik.de/de/home> [↑](#footnote-ref-9)
10. <https://www.nabu.de/natur-und-landschaft/meere/muellkippe-meer/> [↑](#footnote-ref-10)
11. <https://www.bund.net/meere/mikroplastik/> [↑](#footnote-ref-11)
12. <https://www.wwf.de/themen-projekte/meere-kuesten> [↑](#footnote-ref-12)