



Baltic Marine Environment Protection Commission

Workshop on implementation of the Regional Action Plan
on Marine Litter
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Background

The attached document provides an overview of the activities held within the Marelitt Baltic project, the aim of which is to reduce the impact of marine litter in the form of derelict fishing gear (DFG) in the Baltic Sea.

Action requested

The Workshop is invited to make use of the information as appropriate.

An overview of the activities held within the Marelitt Baltic project

The Marelitt Baltic project is a natural continuation of many national initiatives that were carried out independently in the Baltic Sea region. The focus with Marelitt Baltic project is to reduce the impact of marine litter in the form of derelict fishing gear in the Baltic Sea. The aim of the project, that correspond directly to the HELCOM Marine Litter Action Plan is to develop cost-efficient, safe and environmentally friendly derelict fishing gear retrieval methods identified through demonstration actions for sampled targets (soft seabed/wrecks/rocky bottoms) including an environmental impact assessment analysis for sensitive areas.

The project is divided into five work packages (WP), where package 2, 3 and 4 are the major parts concerning the cleaning, prevention and recycling of the DFG.

Methodology description

One of the major goal of the Marelitt Baltic project was to develop, test and apply the methodology that allows to identify the areas with the highest probability of derelict fishing gears occurrence – the randomization process.

The first attempt to the development and test the randomization methodology was undertaken by the Marelitt Baltic project back in 2016 and 2017 and it was concluded that it is not possible to apply similar methodology in the entire Baltic Sea. Regional approach was applied to allow for proper identification of host areas and its types.

In addition it was agreed that due to insufficient data related to special distribution of fishing effort in Estonia and Germany, the randomization process was not carried out there. The identification of retrieval areas in Germany and Estonia was based on information from fishermen and divers regarding expected hot spots areas including wrecks and other underwater hooks.

Regarding Poland and Sweden, the basic principles of the randomization methodology were the same to allow to compare the results. These principles are described below:

1. The Polish and Swedish area of the Baltic Sea was divided into squares: A) typical areas of bottom trawling; B) typical areas of gill net fishery; and C) areas of mixed fishing effort where both gillnets and bottom trawling might co-exist.
Pure bottom trawl grounds (area type A) were identified as areas with close to zero probability of derelict fishing gears abundance. It was assumed that if the derelict fishing gear is deposited in these areas it should be entangled on or retrieved by a bottom trawl. Such a retrieved net would be hauled on board the trawler but it is not known whether it would be brought ashore or dumped back into the sea.
The areas dominated by the gill net fleets (type B) were identified by experts as the areas with the highest probability of derelict fishing gear occurrence.
The areas where gill net and trawl net fishing efforts are overlapping (type C) were identified as areas with lower probability of derelict fishing gear occurrence than in areas type B.
2. The areas listed below were excluded from the dragging operations:
 - areas where underwater munition is deposited;
 - Natura 2000;
 - wrecks having confirmed location status; and
 - permanently closed military polygons.
3. To test the assumptions related to the density of derelict fishing gear in each type of the area (A, B, C) small sampling squares were randomly chosen taking into account the available fishing effort to be used for searching and retrieval operations. In addition to ensure high efficiency of active searching (time of trip minus time related to access the searching area) it was agreed to merge the squares into groups of 4 (Poland) and 3 (Sweden).

4. In addition fishermen from Poland selected several hot spots areas where, based on their practical knowledge, the possibility of derelict fishing gears occurrence was the highest. These areas were located in all three types of areas (A, B, C).

On the basis of the methodology as well as the outcome of the retrieval activities carried out in randomly chosen areas, a map of host areas in the Baltic Sea is being developed and will be available to public.

The amount of DFG retrieved during actions at sea held in 2017

The results from actions at sea held in 2017 are as follows:

- Estonia: 89 kg (including 77 kg retrieved from wrecks);
- Germany: 5572 kg¹ (including 445 kg retrieved from wrecks);
- Poland: 842 kg (plus 2195 kg of various marine litter, such as steel ropes); and
- Sweden: 4774,2 kg.

The amount of DFG retrieved during actions at sea held in 2018

For the moment, Polish fishermen have reported 2894 kg of marine litter retrieved during dragging operations held within a period of 3 months (June - August 2018), including 1149 kg of DFG (gillnets, bottom trawl nets, mixed) and 1745 kg of other litter (anchor, steel rope, ladder).

Reports regarding remaining actions at sea held in Poland and other project partners' countries will be delivered during the following weeks. Therefore, the final amount of DFG will raise and will be updated accordingly in the final report analysis.

Environmental Impact Assessment

Another goal of the Marelitt Baltic project was to thoroughly investigate and analyze the Environmental Impact Assessment (EIA) of various actions at sea held within the project. The EIA report contains guidelines that can be used during the planning of retrieval operations to highlight the possible impacts the operation can have on the environment and can help to minimize these impacts.

The EIA report is available online.

https://static1.squarespace.com/static/58525fe86a4963931b99a5d1/t/5b45af646d2a73ffbac31d5d/1531293553873/EIA_report.pdf

Harbour Survey

To assess the readiness, capability and capacity of Baltic Sea fishing harbors to receive, separately collect and sort the derelict fishing gear (DFG) collected from the sea (as well as end-of-life fishing gear), there was a Harbour Survey conducted within the Marelitt Baltic project.

The report presenting the results is available online:

<https://www.marelittbaltic.eu/documentation/>

Feasibility study

Recycling options for derelict fishing gear retrieved from the sea

As part of the Marelitt Baltic project, WWF Germany has carried out recycling trials with DFG retrieved from the German Baltic Sea and the report presenting the results has been created. The report on technical feasibility describes in detail the results of all DFG recycling trials and the physical and chemical properties derived to evaluate the material quality of lost fishing gears retrieved from the Baltic Sea. The aim of the report was to provide a baseline of technical feasibility and processing options for retrieved fishing gear. The analyses and trials carried out lead to recommendations of how retrieved fishing gear can be treated to enter

¹ The weight of nets retrieved during actions at sea held in Germany covers the results from 2016 and 2017.

the value and recycling chain. The report will be available to public on the Marelitt Baltic website:
<https://www.marelittbaltic.eu/documentation/>.