

Actions 56 and 57: Overview of existing initiatives relating to the removal of abandoned, lost or otherwise discarded fishing gear

The Regional Action Plan for Marine Litter (RAP ML)

OSPAR's marine litter objective is "to substantially reduce marine litter in the OSPAR Maritime Area to levels where properties and quantities do not cause harm to the marine environment". OSPAR 2014 agreed a Regional Action Plan for Marine Litter for 2014-2021; this will be reviewed at the end of this period until spring 2021 after which OSPAR will work on the development of a new or updated RAP.

The RAP ML (2014-2021) defines the four key areas (themes) of actions to be implemented:

- A. Reduction of litter from sea-based sources
- B. Reduction from land-based sources
- C. Removal of existing litter
- D. Education and outreach

The full Regional Action Plan and its outputs can be accessed via <https://www.ospar.org/work-areas/eiha/marine-litter/regional-action-plan>

This summary collates information on global, regional and national initiatives relating to actions 56 and 57 concerning ALDFG to support any future actions that could be taken forward to the next OSPAR regional action plan on marine litter.

The Actions

The two actions both sit within Theme C of the RAP ML: removal actions; and relate to the sub theme: removal of abandoned, lost or otherwise discarded fishing gear. The text of these actions reads as follows:

Action 56: Identify hot spot areas through mapping of snagging sites or historic dumping grounds working with other initiatives, research programmes and with fishing organisations; and

Action 57: Develop a risk assessment for identifying where accumulations of ghost nets pose a threat to the environment and should be removed.

Background

ICG-ML noted that there have been a number of important and very useful national, regional and global work undertaken to make progress against this issue. It was felt that these actions were important and relevant as a starting point for any future work OSPAR may want to undertake relating to ALDFG and so this document compiles information about recent or on going activities. The information was submitted by via a call for information.

In addition, there are elements resulting from the EU Interreg funded Clean Atlantic project that will make a valuable contribution to the evidence base to support future work on ALDFG. Delays in the project resulting from the on going pandemic, mean that these deliverables should be available only after the end

of June 2021 and it has not however been possible to review these elements within the scope of this paper. It is expected that this will include:

- Examples of protocols and case studies from ALDFG, to be included in the Clean Atlantic Knowledge Tool;
- A fishing gear life cycle case study for Madeira, that will include information on the amount of ALDFG produced per year and possible measures to reduce this;
- Case study: Spain - a collaboration with the National Park of the Galician Atlantic Islands to retrieve a hotspot of nets located in the park. Acquisition and tests with ROVs for localising underwater hotspots;
- Case study: UK - an assessment of the Fathoms Free and Odyssey Innovation project to learn about the magnitude of initiatives, protocols used, data available, costs, waste management etc.

Overview of information collated

Information was submitted by Denmark, France, Germany, Ireland, Norway, Sweden, UK and KIMO International. In addition a number of other initiatives were identified through a brief google search including for the Mediterranean Sea, Greenland and Finland. The collated information is presented as Annex 1, including links to web resources, reports and contact information, where this is available. In addition Annex 1 contains summary information relating to one global initiative (Global Ghost Gear Initiative) and three regional initiatives (Clean Nordic Oceans, MARELITT Baltic and a regional survey of ALDFG in the Mediterranean). Further information was included relating to activities in Greenland and Finland.

The initiatives cover the following elements of relevance to Actions 56 and 57:

- Locating and Hotspot mapping;
- Frequency of ghost nets in particular areas
- Removal of ALDFG;
- Environmental impact of removal/ risk assessment

The information in this note was reviewed and approved by ICG-ML (1) 2021.

Potential areas of interest for regional action in the North East Atlantic

The issue of ALDFG is a persistent issue and there is both increased awareness and political will to address the issue of ALDFG, as compared to 2014. There is also a growing body of experience in detection and removal. Some possible elements for OSPAR to consider in the next Regional Action Plan for Marine Litter may include (not exhaustive):

- Focus on prevention of the loss of fishing gear – for example tagging or marking of gear so it can be retrieved before it is lost;(A+B)
- Facilitating reporting of ALDFG / management of reported data;
- Develop protocols/ best practice for retrieval of gear, its collection and recycling;
- Consider the economic impact of ALDFG.

Annex 1: Collation of information on Initiatives relating to Actions 56 and 57

A: Global Initiative

Initiative: [Global Ghost Gear Initiative](#)

Participating countries: A multi stakeholder collaboration including Private Sector, NGOs, IGOs and Governments. Government partners that are OSPAR CPs include Belgium, Iceland, Norway, Netherlands, Sweden and UK.

Date: Launched 2015 – on going

Focus/ description: The Global Ghost Gear Initiative (GGGI) is a cross stakeholder alliance of fishing industry, private sector, corporates, NGOs, academia and governments focused on solving the problem of lost and abandoned fishing gear worldwide. The initiative works to build evidence, define best practice and inform policy, catalyse and replicate solutions. Collaborative projects include identification, removal and recycling of gear.

Contact for further information: Joel Baziuk, Global Ghost Gear Initiative Secretariat, Global Campaign Manager World Animal Protection, UK/Canada

Initiative: [FAO Guidelines for the marking of fishing gear](#)

Participating countries: endorsed by the thirty-third FAO Committee on Fisheries (COFI 33)

Date: July 2018

Description: The purpose of these FAO Guidelines is to assist States and regional fisheries bodies (RFBs), including regional fisheries management organizations and arrangements (RFMO/As), in developing and applying a system for the Marking of fishing gear and related measures to address ALDFG, that provide:

- a) practical means of locating and identifying the ownership of fishing gear;
- b) guiding text on the development of appropriate marking systems;
- c) a framework for undertaking risk assessment to identify the appropriateness or otherwise of implementing a system for marking fishing gear; and
- d) a basis for the preparation of recommendations and regulations designed to minimize the abandonment, loss and discarding of fishing gears and encourage recovery of ALDFG

B: Regional initiatives

Initiative: [Clean Nordic Oceans](#)

Participating countries: A collaboration between Norway, Denmark and Sweden

Date: Phase 1 ended 2020; expect extension

Focus/ description: A Nordic network to exchange knowledge and experience about methods and measures to reduce the effects of ghost fishing, littering of the oceans and to increase recycling from commercial and recreational fishing. For work done on locating lost fishing gear, see chapter 5.2.5 of this [report](#).

Funded by the Nordic Council of Ministers

Contact for further information: Gjermund Langedal (Gjermund.Langedal@fiskeridir.no)

Initiative: [MARELITT Baltic](#)

Participating countries: Sweden, Estonia, Poland and Germany

Date: 2016-2019

Description: A transnational initiative, funded by the EU, with participation from Sweden, Estonia, Poland and Germany. The project has been working to find a sustainable way to approach derelict fishing gear in the Baltic Sea. With a comprehensive approach covering many aspects of the problem like mapping, retrieval, recycling and prevention of ghost nets, the project has created new areas of expertise. It has resulted in an action plan called "[The Baltic Sea Blueprint](#)". That plan can guide organisations and governments towards actionable steps for fighting ghost nets, all over the world. Reports are also available on [derelict gear mapping and retrieval methods](#) and other relevant issues.

Lead: Municipality of Simrishamn (SE)

Contact:

Initiative: [Regional survey on abandoned, lost or discarded fishing gear in the Mediterranean Sea](#)

Date: 2015

Description: Within the framework of an agreement between UNEP/MAP and MAP Partner MIO-ECSDE, the latter undertook the task of conducting a survey-based regional assessment on abandoned, lost or discarded fishing gear (ALDFG) and ghost nets, relying on information collected mainly from fishermen in eleven Mediterranean countries: Albania, Algeria, Croatia, Egypt, Israel, Lebanon, Morocco (Atlantic and Mediterranean side), Palestine (Gaza), Syria, Tunisia and Turkey. The report provides insight on the issue of ALDFG in the Mediterranean sea, with regards to their occurrence, amounts, types and trends as these are perceived mainly by fishermen and/or other fisheries related stakeholder groups, such as crew members of vessels (ranging from small to big vessels, professional or pleasure craft, etc.), port authorities, professional divers, etc. It also takes stock of existing measures including regulations, cleanup operations, etc. to mitigate the impacts of ALDFG in the Mediterranean, as well as to assess the fishermen's intentions to engage themselves in 'Fishing for Litter' schemes, as one of the key measures to address sea-based sources of marine litter outlined in the Regional Plan for Marine Litter Management in the Mediterranean (Article 9, (6); Article 10, (e)).

Initiative: [Fishing Practice & Gear Inventory: Enhancing Understanding of Abandoned Lost or otherwise Discarded Fishing Gear \(ALDFG\)](#)

Participating Countries: Norway, United States. Other partners are welcome to co-lead.

Date: 2021-2023

Description: This project would serve as an implementation activity under one of the strategic actions related to addressing ALDFG in the Arctic ML-RAP by offering a baseline understanding of existing fishing activity and gear use in a given area. The overall goal of the project is to increase understanding and develop reliable informational resources of fishing activity in the Arctic and near-Arctic, in order to inform gear identification as part of monitoring or removal. This additional knowledge could help inform ALDFG prevention and intervention efforts by understanding differences in gear composition over space, and eventually over time.

Main activities:

1. Collect information on current practices gathered from Arctic States and non-Arctic States fishing in the area, which may help identify which gear could contribute to marine litter in the Arctic;
2. Categorize and classify available records of ALDFG that have been recovered to understand potential sources, pathways, and fates of ALDFG and associated equipment, especially as fishing effort shifts farther north to follow biomass;
3. Design a visualization tool and structure to present data in a common format. A visualization structure would incorporate intuitive representation of fishing areas by country, target species, fishing gear by type, as well as any additional parameters identified. This could take the form of static maps or dynamic online tools, depending on assessed utility and resource availability; and,
4. Conduct outreach and communication on the data and lessons learned by providing information to partners on the availability and location(s) of data in order to inform and target ALDFG prevention and intervention efforts.

Funding: tb

Initiative: [Arctic Coastal Cleanup](#)

Leads: Norway. Arctic States and PPs are welcome to co-lead.

Dates: 2021-2023

Description: The project will contribute to enhancing efforts to remove litter from Arctic beaches and waterways. The project will establish partnerships with local organizations, community leaders and regional experts to increase the knowledge and awareness of the problem throughout the Arctic, contributing to reducing discharges of marine litter to the Arctic in the long term.

Main activities:

1. Start with a pilot project in 2021 to identify some areas with high levels of litter and establish methods and models for organization of clean-up actions, given the special Arctic conditions;
2. Based on the experiences from the pilot project, the project will be extended to enable partners in all Arctic regions to participate; and,
3. Highlight the impact of marine litter on the Arctic's unique environment, collect data on types and sources of the plastic litter found, and build awareness and partnerships which can have a positive effect both on clean-up and measures to reduce discharges of marine litter also in the long term.

Funding: \$220 000 USD (in addition to in-kind support)

C. National initiatives

Information submitted by Denmark

Initiative: [Ghost nets—A pilot project on derelict fishing gear](#)

Date: 2017

Description: The report, commissioned by the Danish Environmental Protection Agency and produced by DTU Aqua, maps the places in Danish waters with the greatest risk of losing fishing gear, and where you can expect to find many ghost nets. The risk areas were identified by combining existing data from systems

that collect information about fishing vessels and other ships' positions and activities (VMS and AIS). The authors mapped places where there is an overlap between fishing with active gear (e.g., trawls and seines) and passive gear (e.g. gillnets and traps) and therefore an increased risk of gears colliding. In addition, the report identified places where fishing is being carried out on reefs or shipwrecks where the gear might get hooked. And they have mapped areas where fishing and heavy ship traffic overlap and causes an increased risk of losing fishing gear.

Contact: Senior Researcher Finn Larsen, DTU Aqua, e-mail: fl@aqua.dtu.dk

Initiative: [Mapping ghost nets in Danish waters](#)

Date: End Sept 2021

Description: The project will examine the frequency of ghost nets in selected areas by means of high-frequency sonar and underwater robots equipped with cameras and by diver observation. Furthermore, the project will incorporate data on marine litter from DTU Aqua's standard expeditions in the Baltic and North Seas as well as from the reports by commercial fishermen. It will also conduct interviews with fishermen, divers, and NGOs to include their knowledge in the project and also look at removal methods.

The project, is headed by DTU Aqua and is conducted for the Danish Fisheries Agency. Also participating in the project are Danish Fishermen PO, the Geological Survey of Denmark and Greenland (GEUS), and diving company P-Dyk.

Project Manager Eva Maria Pedersen, DTU Aqua emp@aqua.dtu.dk

Information submitted by France

Initiative: "[Fish and Click](#)" community science initiative to collect data on ALDFG

Date: 2019-2023

Description: *Fish & Click* is a public research program aiming to collect data on abandoned, lost and discarded fishing equipment using all stakeholders at sea and on the shore (walkers, divers, boaters, fishers). A short video: <https://youtu.be/qgG9LXY7T7Q>. To date 240 observers use the app for more than 1000 observations up to today.

Fish & Click is part of the INDIGO project whose aim is to develop biodegradable fishing gear to reduce the total quantity of plastic in the ocean.

Contact: Laetitia Miquerol <laetitia.miquerol@ifremer.fr>

Information submitted by Ireland

Initiative: "[Recuperation of fishing nets lost or abandoned at sea](#)" (**Annex**) Studies and Pilot projects for carrying out the common fisheries policy

Date: Published 2009

Description: Ireland's Bord Iascaigh Mhara (BIM) undertook a research survey with Norway off the west coast of Ireland where they located high dumping of gill net gear and did a retrieval exercise.

A research survey and retrieval programme to determine the types of gear, that was lost or abandoned and contributing factors, on the western slopes of the continental shelf (off Ireland).

Links: https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/fishing_nets_annex1_en.pdf

https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/fishing_nets_part1_en.pdf

Contact Person: BIM, Dominic Rihan

Contact details: dominic.rihan@bim.ie

An Taisce - Clean Coasts programme

Below are two initiatives, which are group networks in various regions that have focused on various regions.

Initiative: [Clew Bay & Achill CLAMs groups](#)

Description: Group network that work together and represent all aquaculture producers within the region. They are part of Clean Coasts network and as a result have completed numerous clean ups and engaged with community in Clean Coasts network on any local fishing or aquaculture issue as it arises. The unique co-ordinated local Aquaculture Management Systems (CLAMS) process is a national initiative to manage the development of aquaculture in bays and inshore water throughout Ireland at local level.

Contact: Mary Hannan - Mary.Hannan@bim.ie

Initiative: [Cuan Beo](#)

Description: Cuan Beo is a recently formed community based organisation established with a mission of improving the quality of life, environment, economy and heritage around Galway Bay.

Cuan Beo was born from Clean Coasts and has done a lot of work in the region. Clean Coasts had aimed to do a project, monitoring impact of oyster farming in the region but were unable to do that due to COVID. Clean Coasts would like to support it this summer (2021), but it depends on groups and COVID restrictions.

Contact: cuanbeo@gmail.com

Additional to this within the Clean Coasts programme several groups have aimed to focus on tackling fishing related litter in recent years, those that we have worked with directly include:

- Woodstown Residents Association (Clean Coasts Group) link up with Woodstown Bay Shellfish Ltd. to tackle aquaculture litter that washes up on Woodstown beach.
- Clean Coasts group network was created in Dungarvan to tackle issue of fishing litter. Clean Coasts and the groups are engaging with Waterford City and County council and Shellfish Company have been engaged on the issue. We hope to have solution discussion with all parties in near future (preferably this would be beach clean activity with facilitated session post event, this may not be possible this year).
- Carlingford Collaboration - This initiative went a little dormant. It started with Carlingford Tidy Towns raising the issue, and we worked on forming a working group to address and resolve issue. We produced a document that could be circulated to the CLAMS network, including best practise and insights from Carlingford region. The document has to be finalised and signed off by the network.

Initiative: [Ghost Diving](#)

Ghost Diving are a global initiative but work in Ireland and undertook a [project in Killary](#) reported in 2018. Clean Coasts have previously collaborated with Ghost diving.

Initiative: [Seasearch Ireland](#)

Seasearch is a project for divers and snorkelers, who have an interest in what they're seeing under water, want to learn more and want to help protect the marine environment around the coasts of Britain and Ireland. The main aim is to map out the various types of sea bed found in the near-shore zone around the whole of the Britain and Ireland. In addition they are recording what lives in each area, establishing the richest sites for marine life, the sites where there are problems and the sites which need protection.

Contact: SeasearchIreland@gmail.com

Additional information: National Biodiversity Data Centre, Coastwatch and Clean Coasts all monitor fishing related litter to variant degrees and with different approaches.

Information submitted by Norway

Initiative; [Norwegian Directorate of Fisheries' yearly retrieval surveys for lost fishing gear](#)

Date: Ongoing since 1980s

Description: Annual removal of large quantities of lost fishing gears. Focuses on retrieving pots and gillnets in the main fishing banks along the Norwegian coast.

Contact: Gjermund Langedal: Gjermund.Langedal@fiskeridir.

Information submitted by Sweden

Initiative: Development of national guidance for pick-up and trawling operations for ghost nets.

Date: The project is currently active and will end in 2022.

Description: The initiative will seek to answer questions such as: Can dredging can be carried out in Natura 2000 areas? Are there exceptions where a risk analysis makes this possible? Here are we planning to do a risk assessment; How best to report dredging efforts? How should cultural environmental interests be taken into account?

Contact: Lisa Bredahl Nerdal <lisa.bredahlnerdal@havochvatten.se>

Initiative: [GhostGuard](#)

Date: Launched 2020

Description: Launched by the Swedish agency for marine and water management, GhostGuard is a web application for both fishermen and recreational fishermen to report lost fishing gear. National cleanups actions are there after planned accordingly to reported lost fishing gear in GhostGuard.

Contact: ghostguard@havochvatten.se

Information submitted by UK

Initiative: [A rapid evidence assessment of the current data and knowledge of abandoned, lost or otherwise discarded fishing gear \(ALDFG\)](#)

Date: 2018-2019

Description: The initiative examined available research from global, regional and national sources, and therefore identifying gaps in evidence with two specific objectives:

Objective 1: Develop an understanding and summarise the current data/knowledge of ALDFG and therefore identify the gaps in evidence in this area of work.

Objective 2: Provide a summary of current active projects and past relevant projects along with an assessment of effectiveness, costs and impact on the marine environment.

Reference: MBI EWG (2020). Rapid assessment of evidence collation on Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG). A report produced by MRAG for Marine Biodiversity Impacts Evidence Working Group members Department for Environment, Food and Rural Affairs, Natural England, Natural Resources Wales, the Marine Management Organisation, the Joint Nature Conservation Committee and Centre of Environment, Fisheries and Aquaculture Science, Project No: ME5232, 72pp

Information submitted by Germany

Initiative: Removal of ghost gear by WWF Germany

Date: 2016-ongoing

Description: The project is based on an environmental impact/risk assessment for removal methods done by the MARELITT Baltic Project from 2016-2019. Locating and hotspot mapping of the frequency of appearance of ghost nets in particular areas is carried out by applying side scan sonar technique at known gillnet fishery areas in the Baltic Sea for related fishing gear items on the sea floor. In addition wreck positions with known ALDFG occurrence are mapped by divers. So far, the sonar was applied for 28 days in the **Baltic Sea**, where waters around the island of Rügen, Mecklenburg Vorpommern and on different locations on the coast of Schleswig Holstein were 350 sm were mapped. Of 145 suspicion positions which looked like ALDFG, 70 were verified by ground truth via diver and half of the positions (n=33) were proofed to be ALDFG. WWF Germany launched the freeware WWF Ghostdiver app in the app stores. At one hand the App allows divers to report ALDFG detected during diving, on the other hand the app asks the sport divers community to verify the announced sonar positions. This supported the effective removal of 9 tons of ALDFG, which were retrieved in September 2020 (all detected by sonar) and will support future planning. Until now the App is available in German Appstores (in German and English) only, the next step is the internationalization. The project was funded by prezero, the Federal Environment Agency (UBA); Postcode; NUE; BINGO and egeos.

Other organizations which also retrieved ghost gear in marine waters of the German Baltic Sea are Ostsee Erbe-Geisternetze Insel Rügen, SDA, GRD. Jointly approximately 20 tons of ALDFG were so far removed by retrieval actions in the years 2016-2020. Until 2024 the Federal State of Mecklenburg Vorpommern proofs an implementation of the sonar method of ALDFG search into their federal state programs, as well as the subsequent waste facility questions. Workshops will be held with fishermen.

In June 2021 the sides scan sonar technique will be tested in a pilot project for the first time in the **German North Sea**, financed and assisted by the Federal Environment Agency (UBA). Areas are chosen by knowledge gained by fishermen, scientific institutes, federal agencies and divers.

Additional information:

Initiative: Greenland's initiatives for removal and handling of lost and abandoned fishing gear

Date: Ongoing

Description: A number of initiatives have been undertaken.

Contact: Augusta Jerimiassen, Manager, Ministry of Fisheries in Greenland.

Initiative: Derelict fishing gear in Finnish waters

Date: Start 2018

Description: Through 4 work packages, the project aimed to work with fishermen to remove ghost nets: mapping lost/ discarded gear, retrieval, reception, sorate and management; communication. The project was implemented by Syke