

ENVIRONMENTAL INVESTIGATION AGENCY

SUBMISSION TO SPECIAL RAPPORTEUR'S IMPACT ANALYSIS OF THE INTERNATIONAL MARITIME ORGANIZATION (IMO)

INTRODUCTION

The Environmental Investigation Agency is a civil society organisation based in the UK working on national, regional and international policy related to plastic pollution. The organisation has undertaken advocacy at IMO, participated in Correspondence Groups, attended Committee meetings (Marine Environment Protection Committee, Pollution Prevention and Response Sub-Committee) and engaged with Parties with a specific focus on the *Action Plan to Prevent Marine Plastic Litter from Ships* and its implementation.

Our input responds to the following areas where further information was requested by the Special Rapporteur:

- Prevention and response to marine pollution, including oil pollution
- Chemical pollution, including hazardous substances, garbage, and sewage
- Safety of navigation
- Gaps in, and effectiveness of, international maritime anti-pollution conventions

BACKGROUND

At the 73rd session of the Marine Environment Protection Committee (MEPC), the International Maritime Organization (IMO) adopted its *Action Plan to Address Marine Plastic Litter from Ships*. At the 74th session of MEPC, work was undertaken to prioritise the actions identified and develop a strategy to implement them. Given the extensive scope of work contained within the *Action Plan*, and the urgency of the plastic-pollution crisis, Parties will need to ensure prompt consideration and adoption of priority measures to tackle sea-based sources of marine plastic pollution.

PRIORITY MEASURES ON MARINE PLASTIC POLLUTION

Priority measures can be grouped into three main categories: (i) measures to promote greener ships; (ii) measures on fishing vessels and gear; and (iii) port-side measures. The measures promoted herein relate predominantly to MARPOL Annex V, London Convention and Protocol and the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F), with a focus on action required for IMO to adequately prevent and respond to plastic pollution, promote navigational safety and ensure that plastic pollution, including fishing gear, is prevented from harming the marine environment, coastal communities and the seafood supply chain.

Measures to Promote Greener Ships

It is well-accepted that the current contribution of ships to marine plastic pollution is unacceptable and additional measures are required. IMO already contains the general framework for how to promote greener ships—*e.g.* garbage management plans, garbage record books, standards for training seafarers—but those measures are often too limited, too vague or disregarded. IMO should therefore work to

improve the existing framework to make it more functional and effective, in addition to adopting such additional measures as needed.

- **Mandatory Garbage Record Books for Ships ≥100 GT.** Under Regulation 10.2 of MARPOL Annex V, ships 100 gross tonnage (GT) or above must have a garbage management plan with procedures for minimizing, collecting, storing, processing and disposing of garbage.ⁱ The requirement to maintain a garbage record book under Regulation 10.3 of MARPOL Annex V, however, with information on garbage disposal at ports and accidental losses of fishing gear, only applies to ships 400 GT or above.ⁱⁱ In order to align garbage management planning with garbage record book-keeping, and thereby facilitating compliance and enforcement, the obligation to maintain a garbage record book should apply to all ships that are required to have a garbage management plan, *i.e.* ships 100 GT or above.ⁱⁱⁱ
- **Waste Minimization and On-Board Waste Management.** Regulation 10.2 of MARPOL Annex V requires the garbage management plans for ships required to have them to be based on IMO guidelines, most recently the 2017 Guidelines for the Implementation of MARPOL Annex V.^{iv} There, IMO outlines a series of considerations on waste minimization and on-board waste management that shipowners and operators should strive to achieve.^v While a welcome first step, the considerations therein should be improved upon and more systematically operationalized. To this end, IMO should undertake a series of actions for plastics in particular. **First**, IMO should provide more specific guidance—containing greater granularity on the relevant considerations, and detailing best practices and minimum requirements—for garbage management plans for the main ship types, *i.e.* cargo ships, tankers, passenger ships, fishing vessels, ferries or recreational craft. This should include best procurement practices to reduce plastic consumption and requirements for on-board plastic waste management, including separate collection of plastic waste on ships (in conjunction with a parallel obligation of separate collection at ports). This more specific guidance should then be incorporated into the next revision of the guidelines with corresponding amendments to Regulation 10 of MARPOL Annex V.^{vi} **Second**, in order to promote uptake of this more specific guidance, IMO should also consider establishing minimum criteria for green-ship certification for marine plastic pollution. **Third**, for those ships receiving green-ship certification, reductions in fees should be encouraged at ports (discussed below under port-side measures).^{vii}
- **Crew and Passenger Training.** Training and mandatory knowledge on reducing marine plastic pollution should be incorporated into the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), and Model Course 1.38 on marine environmental awareness should be reviewed.^{viii}
- **Inspections and Enforcement.** IMO should promote inspections and enforcement by port State control, in particular through the expanded use of Memoranda of Understanding (MOU) to ensure MARPOL Annex V implementation and coverage of fishing vessels.^{ix} IMO should further consider how to enhance the effectiveness of inspections through a risk-based approach.^x
- **Container Loss.** At present, IMO sets out no specific measures to address containers lost at sea despite their potentially very significant contribution to marine plastic pollution.^{xi} On average, 568 containers lost per year, rising to 1,582 when catastrophic events are considered.^{xii} In order to address this oversight, specific measures should be adopted, including: (i) a mandatory reporting obligation in MARPOL Annex V with details on identification, location, cargo, and any potential navigational and environmental risks; (ii) a compulsory system of formatted declarations for containers lost at sea, coupled with on-board protocols to facilitate the identification of containers lost at sea; and (iii) additional measures to facilitate the tracking of containers lost at sea in order to promote their recovery and limit any potential navigational and environmental risks.^{xiii}

Measures on Fishing Vessels and Gear: Preventing plastic pollution, increasing navigational safety

Comprised predominantly of plastic and other materials such as lead, fishing gear are disproportionate contributors to marine pollution and pose a significant risk if lost or dumped. In recent years, although some steps have been taken to develop voluntary actions, such as voluntary guidelines on the marking of fishing gear, mandatory measures have not been forthcoming at the IMO despite being the agency with the primary responsibility for the prevention of marine (plastic) pollution from ships.^{xiv} Indeed, abandoned, lost or otherwise discarded fishing gear (ALDFG) accounts for approximately 10% of the total plastic entering our oceans globally, though some studies point to much higher concentrations of fishing litter in the Great Pacific Garbage Patch and the North Sea, suggesting the true scale of the problem is far more severe.^{xv}

The causes of ALDFG range from direct drivers such as enforcement pressure leading illegal fishers to abandon their gear to avoid capture, operational pressure and weather events which increase the likelihood of loss or discarding and spatial and temporal pressures on fishing areas from both legal and illegal fishing activity resulting in gear conflict. Indirect causes such as expensive, inaccessible or non-existent disposal facilities can also increase incidences of gear dumping.^{xvi}

Fishing gear pollution poses numerous risks to navigation safety through the entanglement of propellers, in addition to the danger posed to fishing vessels in undertaken recovery of lost gear in high risk environments or without adequate training or equipment.

In order to address the disproportionate contribution from fishing vessels and gear to marine plastic pollution, in addition to the measures to promote greener ships in general, a comprehensive package of complementary and self-reinforcing measures targeting fishing vessels and gear is required:

- **Mandatory Reporting of Discharges and Accidental Losses of Fishing Gear to IMO.** Discharges and accidental losses of fishing gear should be reported to IMO.^{xvii} Regulation 10.6 of MARPOL Annex V currently only requires reporting of discharges or accidental losses of fishing gear to the flag and coastal States.^{xviii}

The accidental loss or discharge of fishing gear as provided for in regulations 7.1.3 [*i.e.* accidental losses provided all reasonable precautions have been taken to prevent such loss] and 7.1.4 [*i.e.* discharges for the protection of the marine environment or the safety of that ship or crew] which poses a significant threat to the marine environment or navigation shall be reported to the State whose flag the ship is entitled to fly, and, where the loss or discharge occurs within waters subject to the jurisdiction of a coastal State, also to that coastal State.

No similar reporting requirement to IMO exists, undermining international oversight of compliance and enforcement with Regulation 10.6 of MARPOL Annex V and compounding data discrepancies and shortcomings within the Global Integrated Shipping Information System (GISIS), including the identification of hot spots and navigational hazards. Regulation 10.6 of MARPOL Annex V should be supplemented with a corresponding reporting requirement to IMO and explicit inclusion within GISIS.^{xix} IMO should also adopt a circular reminding Member States to collect and ensure the reporting of this information.^{xx}

- **Mandatory Reporting of Minimum Information to Flag and Coastal States and IMO.** In the instance of discharges or accidental losses of fishing gear into the sea, certain minimum information should be reported to flag and coastal States as well as IMO, including: the IMO ship identification number and name of the vessel, the type of gear lost, the time the gear was lost, the position where the gear was lost, and the measures undertaken to retrieve the gear.^{xxi} Such

harmonization of reported information across jurisdictions ensures comparability and usefulness of reported data. To this end, IMO should amend MARPOL Annex V to require minimum information on discharges and accidental losses be reported by fishing vessels and develop a standard format for reporting.

- **Mandatory Marking and Logging of Fishing Gear.** MARPOL Annex V currently contains no requirements on the marking of fishing gear. In the absence of IMO action, at the 33rd session of the Committee on Fisheries in 2018, Food and Agricultural Organization (FAO) Member States formally adopted Voluntary Guidelines for the Marking of Fishing Gear (VGMFG), described as a tool “to improve the state of the marine environment... by combatting, minimizing and eliminating abandoned, lost or otherwise discarded fishing gear (ALDFG) and facilitating the identification and recovery of such gear.”^{xxii} While this is an important first step, IMO should support and promote the uptake of these voluntary guidelines by making the VGMFG mandatory via amendment to MARPOL Annex V. In addition, each item of fishing gear should be recorded in the official logbook with its relevant information, which would facilitate the detection of violations during port State control inspections.^{xxiii}
- **Reasonable Precautions to Prevent Accidental Losses of Fishing Gear.** Regulation 3.2 of MARPOL Annex V prohibits the “discharge into the sea of all plastics, including but not limited to synthetic ropes (and) synthetic fishing nets” subject to an exception in Regulation 7.3 of MARPOL Annex V for the “accidental loss of fishing gear from a ship provided that all reasonable precautions have been taken to prevent such loss.” Nowhere in MARPOL Annex V or elsewhere, however, are the reasonable precautions to be taken outlined, creating an exception that swallows the prohibition and ensuring uneven application across jurisdictions. Several precautions should be deemed reasonable at the global level, for example: (i) fishing vessels should have equipment on board to attempt immediate retrieval any lost fishing gear; (ii) certain types of fishing gear should be equipped with buoys and trackers to enable their location and recovery; and (iii) periodic training of fishing-vessel personnel should be undertaken, covering topics such as the precautions to be taken to prevent accidental losses, reduction of soak times, best stowage practices, and gear-use limits in high-risk areas and during high-risk times, among others. Moreover, to benefit from the exception to the prohibition against discharging fishing gear into the sea, certain minimum and harmonized information should be reported when fishing gear is accidentally lost despite reasonable precautions being taken, including: (i) the IMO ship identification number and name of the vessel; (ii) the type of gear lost; (iii) the time the gear was lost; (iv) the position where the gear was lost; and (v) the measures undertaken to retrieve the gear. To this end, IMO should amend MARPOL Annex V to clarify the reasonable precautions to be taken and provide guidance on their uptake and application.
- **Training for Fishing-Vessel Personnel.** Training and mandatory knowledge on reasonable precautions to be taken to prevent accidental losses of fishing gear should be incorporated into the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F),^{xxiv} with a focus on safe retrieval methods and protocols and equipment.
- **Mandatory IMO Ship Identification Number Scheme for Fishing Vessels ≥12 Meters.** IMO Resolution A.1117(3) sets out a voluntary IMO Ship Identification Number Scheme applicable to fishing vessels ≥100 gross tonnage (GT) or fishing vessels ≥12 meters in length overall (LOA) authorized to operate outside waters under the national jurisdiction of the flag state.^{xxv} This scheme should be made mandatory on all fishing vessels for several reasons, including to: (i) facilitate environmental compliance and enforcement; (ii) complement the marking of fishing gear; and (iii) complement the reporting of information by fishing vessels.^{xxvi}
- **Extended Producer Responsibility for Fishing Gear.** Well-designed extended producer responsibility (EPR) schemes for fishing gear have the potential to play a significant role in

preventing accidental losses and discouraging illegal discharges. For example, mandatory deposit-refund schemes provide financial incentives for fishing vessels to return derelict fishing equipment and undertake robust efforts to retrieve lost gear.^{xxvii} Moreover, requirements on producers to cover the costs of separate collection, transport and recycling can overcome hurdles to end of life treatment, supported by upstream obligations on fishing-gear design for reuse and recyclability.^{xxviii} The European Union (EU) has recently adopted legislation requiring EPR schemes for fishing gear, and the IMO should work to support the uptake of EPR schemes in other jurisdictions. To this end, IMO should provide guidance with recommendations on the elements and design of EPR schemes for fishing gear, including the following elements: (i) key definitions, such as fishing gear, waste fishing gear and producer; (ii) structure and logistical aspects, such as roles and responsibilities of stakeholders, governance mechanisms, financial contributions, reporting, and monitoring and enforcement controls; (iii) obligations, such as targets, awareness-raising measures, separate collection and subsequent transport and treatment, data gathering and information exchange; (iv) exemptions, such as for artisanal makers of fishing gear.^{xxix} Consideration could also be given to the future inclusion in MARPOL Annex V of a mandatory requirement to establish EPR schemes for fishing gear.^{xxx}

- **Circular design of fishing gear.** A significant opportunity for bringing fishing gear into the circular economy, removing toxic materials from fishing gear and reducing the impacts of ALDFG exists through a global standard for the circular design of fishing gear. Recent work undertaken by the European Commission to inform a standardisation request identified numerous challenges in current fishing gear such as mixed materials and polymers, lack of support or legal obligation to standardise design, lack of support for development of alternatives, low use of / or lack of suitable collection points in ports, contamination risk and logistical challenges with the value chain for recycling. Fundamentally the current practices in gear design do not facilitate complete reuse or recycling.^{xxxi} Despite this, around the world numerous projects have demonstrated the financial viability of fishing net recycling and, in some cases, the economic benefits for fishing communities through participation in community-led net collection and recycling projects.^{xxxii} IMO should cooperate with FAO, Regional Fisheries Bodies and Parties to promote guidance on the circular design of fishing gear to its Members.
- **Illegal, Unreported and Unregulated Fishing.** In addition to addressing lost or discharged fishing gear in the formal fishing sector, IMO must also take specific action on the informal fishing sector, namely illegal, unreported and unregulated (IUU) fishing.^{xxxiii} IUU fishing vessels disproportionately contribute to marine plastic pollution because they are more likely to: (i) lose their gear by fishing in risky areas; (ii) use gear that conflicts with other gear, *e.g.* mobile gear passing through an area where static gear is positioned; (iii) engage in dangerous practices, such as fishing in poor weather or at night; and (iv) dump gear to evade capture, destroy evidence or ensure port access.^{xxxiv} All the measures proposed herein will assist with reducing marine plastic pollution from IUU fishing – in addition to reducing its impact on fisheries and poverty. However, IMO should go further and initiate a dedicated work stream in conjunction with FAO to explore what complementary actions could be taken at the IMO level—beyond those in the Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA)—to reduce IUU fishing in developing countries lacking capacity and resources for effective monitoring, control and surveillance.^{xxxv} Such actions will support capacity control efforts and protect resources for coastal communities.

Port-Side Measures

In order to fulfil the potential of the *Action Plan to Address Marine Plastic Litter from Ships*, IMO cannot avoid the key role of ports and measures to improve their effectiveness. Currently, Regulation 8 of MARPOL Annex V simply requires ports to be “adequate” for the reception of garbage (of which plastics comprise a part).^{xxxvi} General considerations on what it means to be adequate are provided in the *2017 Guidelines for the Implementation of MARPOL Annex V* and related guidance in the *Guidelines for*

Ensuring the Adequacy of Port Waste Reception Facilities and the Consolidated Guidance for Port Reception Facility Providers and Users, but these considerations are vague and generic.^{xxxvii} Moreover, a review of these documents reveals a complete lack of specific port-related measures to reduce marine plastic pollution. These are major shortcomings that the *Action Plan to Address Marine Plastic Litter from Ships* must address.

- **Adequate Port Reception Facilities.** To prevent current practices of waste dumping and burning of plastic fishing gear, IMO must detail with much greater specificity the port-related measures required to be in place for port reception facilities to be considered adequate for garbage, in general, and for plastic, in particular. This should include: (i) mandatory waste management plans at each port, developed in consultation with port users, waste management operators, local municipalities and other stakeholders;^{xxxviii} (ii) separate collection and handling of plastic waste at ports (in conjunction with a parallel obligation of separate collection on ships);^{xxxix} and (iii) minimum reporting on port waste management plans for inclusion in GISIS.^{xl} These should be coupled with measures at the IMO level to more systematically monitor and improve inadequate port reception facilities, and IMO should also consider the creation of a programme to train waste ambassadors at ports to advocate on waste management issues and ensure active engagement with fishing communities, local municipalities and other stakeholders.
- **Cost Frameworks.** MARPOL Annex V contains no obligations or guidance on the elements and design of effective cost frameworks at ports despite their critical role in promoting responsible on-board behaviour and removing incentives to dump plastic at sea. For example, cost frameworks that allow ships to deliver all their garbage at port up to their maximum dedicated storage capacity for a fixed fee based on ship type—often referred to as a 100% indirect fee—eliminates incentives for these ships to illegally dump their garbage at sea to reduce fees paid at port under other cost frameworks based on volume.^{xli} Moreover, providing reduced fees for ships that systematically engage in waste minimization and on-board waste management—proven through green-ship certification, for example—promotes the uptake of best practices by providing a financial incentive while also reducing the burden on ports.^{xlii} For these reasons, IMO should review various cost frameworks and explore what elements could be made mandatory in MARPOL Annex V (in order to be considered adequate) and what elements should be recommended for adoption at ports.
- **Passively Fished Waste.** Throughout Europe, fishing-for-litter initiatives have demonstrated the potential for industry-led efforts to collect, store and responsibly dispose of waste collected during fishing operations at no additional burden to fishers.^{xliii} IMO should, as a minimum, take the lead in sharing best practices for these initiatives by producing guidelines and otherwise support their expansion globally through a circular to IMO Member States recommending their adoption.^{xliv}

Gaps in International Legislation

Under the auspices of the United Nations Environment Assembly (UNEA) work is underway to tackle the problem of plastic pollution, with successive UNEA resolutions calling for a global response that can fill the current legislative gaps and adequately address this challenge.^{xlv} Sea-based sources of plastic pollution is a significant weakness in the current global dialogue on plastic pollution, with many actions to protect environmental and human health currently falling between the gaps of the regional fisheries management infrastructure and the international instruments under FAO and IMO.

It's clear that a bespoke and tailored approach within the design of a global agreement on plastic pollution is required for fishing gear in particular, alongside strengthening of measures within IMO, to meet the ambitions of the IMO *Action Plan* and the 2030 Agenda for Sustainable Development.

For more information:

Tim Grabiel

Senior Lawyer
Environmental Investigation Agency
timgrabiels@eia-international.org
+33 6 32 76 77 04

Christina Dixon

Senior Ocean Campaigner
Environmental Investigation Agency
christinadixon@eia-international.org
+44 20 7354 7979

-
- i MARPOL Annex V, Regulation 10(2).
- ii MARPOL Annex V, Regulation 10(3).
- iii See MEPC 73/8/2, paras. 44-49 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP).
- iv Resolution MEPC/295(71), *2017 Guidelines for the Implementation of MARPOL Annex V* (7 July 2017).
- v Resolution MEPC/295(71), *2017 Guidelines for the Implementation of MARPOL Annex V* (7 July 2017), §2.
- vi See MEPC 73/8/2, paras. 67 and 70 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP).
- vii See e.g. Official Journal of the European Union L 151, 7.6.2019, p. 116. *Directive (EU) 2019/883 on Port Reception Facilities for the Delivery of Waste from Ships* (17 April 2019), Article 8(5).
- viii See MEPC 73/8/4, paras. 13-14 (submission by New Zealand); MEPC 73/8/3, para. 25.4 (submission by EU Member States and the European Commission); MEPC 73/8/2, paras. 57-58 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP).
- ix See MEPC 73/8/2, paras. 53-55 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP); MEPC 73/8/4, paras. 9-11 (submission by New Zealand).
- x See e.g. *Directive (EU) 2019/883 on Port Reception Facilities for the Delivery of Waste from Ships* (17 April 2019), Article 11, Official Journal of the European Union L 151, 7.6.2019, p. 116.
- xi See e.g. MEPC 73/8/2, paras. 61-66 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP).
- xii World Shipping Council, *Containers Lost at Sea – 2017 Update* (2017), available at http://www.worldshipping.org/industry-issues/safety/Containers_Lost_at_Sea_-_2017_Update_FINAL_July_10.pdf
- xiii See e.g. MEPC 73/8/2, paras. 61-66 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP), *citing* Document CCC 1/12 (submission by France and Spain).
- xiv Food and Agricultural Organization (FAO), *Voluntary Guidelines on the Marking of Fishing Gear* (Rome, 2019), available at <http://www.fao.org/3/ca3546t/ca3546t.pdf>.
- xv Lebreton, L. et al, *Evidence that the Great Pacific Garbage Patch Is Rapidly Accumulating Plastic* (2018), available at <https://www.nature.com/articles/s41598-018-22939-w>; OSPAR, *Beach Litter – Abundance, Composition and Trends (2017)*, available at <https://oap.ospar.org/en/ospar-assessments/intermediate-assessment-2017/pressures-human-activities/marine-litter/beach-litter/>.
- xvi Macfadyen, G.; Huntington, T.; Cappell, R. *Abandoned, lost or otherwise discarded fishing gear. UNEP Regional Seas Reports and Studies No.185; FAO Fisheries and Aquaculture Technical Paper, No. 523. Rome, UNEP/FAO, 2009*
- xvii See MEPC 73/8/2, paras. 37-38 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP); MEPC 73/8/4, para. 7.2 (submission by New Zealand).
- xviii MARPOL Annex V, Regulation 10.6.
- xix MEPC 73/8/4, paras. 6-8 (submission by New Zealand).
- xx See MEPC 73/8/2, paras. 37-38 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP).
- xxi See e.g. Council Regulation (EC) No 1224/2009 Establishing a Union Control System for Ensuring Compliance with the Rules of the Common Fisheries Policy, Article 48, Official Journal of the European Union L 354, 28.12.2013, p. 1–21, as amended, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02009R1224-20190414>.
- xxii Food and Agricultural Organization (FAO), *Voluntary Guidelines on the Marking of Fishing Gear* (Rome, 2019), available at <http://www.fao.org/3/ca3546t/ca3546t.pdf>.

-
- xxxiii MEPC 73/8/2, paras. 33-36 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP); MEPC 73/8/4, paras. 13-14 (submission by New Zealand); MEPC 73/8/4, paras. 6-8 (submission by New Zealand).
- xxxiv See also MEPC 73/8/2, paras. 50-52 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP); MEPC 73/8/4, paras. 13-14 (submission by New Zealand).
- xxxv IMO Resolution A.1117(3) (adopted 6 December 2017).
- xxxvi MEPC 73/8/2, paras. 29-32 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP)
- xxxvii Eunomia, *Study to Support the Development of Measures to Combat a Range of Marine Litter Sources: Report for European Commission DG Environment* (January 2016), p. 344.
- xxxviii See MEPC 73/8/5, para. 11 (submission by India).
- xxxix See e.g. *Directive 2008/98/EC on Waste*, Articles 8 and 8a, Official Journal of the European Union L 312, 22.11.2008, p. 3, as amended, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02008L0098-20180705&from=EN>; *Directive (EU) 2019/904 on the Reduction of the Impact of Certain Plastic Products on the Environment*, Articles 3(4)-(5), (10)-(14) and 8(8), Official Journal of the European Union L 155, 12.6.2019, pp. 1-19, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019L0904>.
- xxx See MEPC 73/8/5, para. 10 (submission by India).
- xxxi Study on Circular Design of the Fishing Gear for Reduction of Environmental Impacts, European Commission EASME/EMFF/2018/011 Specific Contract No.1, 2020, see more [here](#)
- xxxii Charter M., Carruthers R., Jensen S., *Products from Waste Fishing Nets*, The Centre for Sustainable Design, 2018, see more [here](#)
- xxxiii See e.g. MEPC 73/8/2, paras. 23-28 and 31 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP).
- xxxiv See FAO Fisheries and Aquaculture Technical Paper 523, *Abandoned, Lost or Otherwise Discarded Fishing Gear* (2009), Chapter 4, p. 56, available at <http://www.fao.org/3/i0620e/i0620e00.htm>.
- xxxv Food and Agricultural Organization (FAO), *Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing* (registered on 26 January 2017), available at http://www.fao.org/fileadmin/user_upload/legal/docs/037s-e.pdf.
- xxxvi MARPOL Annex V, Regulation 8.
- xxxvii See Resolution MEPC.295(71), *2017 Guidelines for the Implementation of MARPOL Annex V* (7 July 2017), p. 2 (Preface); see also MEPC.83(44), *Guidelines for Ensuring the Adequacy of Port Waste Reception Facilities* (13 March 2000), available at [http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Marine-Environment-Protection-Committee-\(MEPC\)/Documents/MEPC.83\(44\).pdf](http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Marine-Environment-Protection-Committee-(MEPC)/Documents/MEPC.83(44).pdf); MEPC.1/Circ.834/Rev.1, *Consolidated Guidance for Port Reception Facility Providers and Users* (1 March 2018), available at <http://www.imo.org/en/OurWork/Environment/PortReceptionFacilities/Documents/MEPC.1-Circ.834-Rev.1.pdf>.
- xxxviii MEPC 73/8/3, para. 15 (submission by EU Member States and the European Commission).
- xxxix MEPC 73/8/3, para. 12 (submission by EU Member States and the European Commission).
- xl MEPC 73/8/3, para. 15 (submission by EU Member States and the European Commission).
- xli MEPC 73/8/3, para. 17 (submission by EU Member States and the European Commission).
- xlii See MEPC 73/8/2, paras. 67 and 70 (submission by Chile, Cook Islands, Fiji, Ghana, Iceland, Jamaica, Kiribati, Marshall Islands, Monaco, Norway, Palau, Solomon Islands Tuvalu, Vanuatu and SPREP); see also Official Journal of the European Union L 151, 7.6.2019, p. 116. *Directive (EU) 2019/883 on Port Reception Facilities for the Delivery of Waste from Ships* (17 April 2019), Article 8(5).
- xliii See e.g. KIMO, *Fishing for Litter: What Is Fishing for Litter?* (website), available at <http://www.fishingforlitter.org.uk/what-is-fishing-for-litter> (last visited 30 January 2018); OSPAR Commission, *Fishing-for-Litter Guidelines* (OSPAR Agreement 2017-08), EIHA 17/9/1, Annex 13.
- xliv MEPC 73/8/3, para. 18 (submission by EU Member States and the European Commission).
- xlv UNEA Resolution 1/6 (2014), 2/1 (2016), 3/7 (2017), 4/6 (2019)