



Position paper

Advocating Extended Producer Responsibility for fishing gear

Developed by IUCN/Searious Business/Global Ghost Gear Initiative/UNEP/Ellen MacArthur Foundation in consultation with WTO, UNCTAD, EU, WWF Germany

Recent years have seen a significant increase in concern about the global problem of used fishing gear and ropes in the world's ocean and other aquatic environments (this paper also extends to gear used in aquaculture). Fishing gear has been found to be one of the main sources of marine plastic litter. Recent studies have suggested that between 46%¹ and 70%² of the floating macroplastics in the ocean gyres is made up of fishing gear and maritime ropes. Being purposely designed to catch aquatic species, abandoned, lost or otherwise discarded fishing gear (ALDFG), is one of the most harmful forms of marine debris, which creates serious issues for the overall health of aquatic environments including our ocean, rivers and lakes. Fishing gear and ropes can continue to fish and trap aquatic life, entangling aquatic megafauna, depleting harvestable fish populations thus impacting global food security, causing hazards to navigation, and acting as a hazard for commercial and non-commercial marine species, and aquatic habitats.

Overfishing from different sources, including ALDFG, is already considerably affecting the marine environment, with nearly 90% of the world's marine fish stocks now fully exploited, overexploited or depleted³. Furthermore, marine plastics can flow through different national jurisdictions and international waters, making the issue of fishing gear and ropes a cross-border global challenge. As a global issue contributing to the depletion of fish populations and fisheries sustainability and the increasing prevalence of marine plastic pollution, the challenge presented by fishing gear and ropes calls for equally global solutions.

It is recognized that no fisher ever wants to lose gear, as gear loss presents an economic cost, both immediate (via gear replacement costs) and future (via potentially impacted harvestable fish populations). However, it is expected for some gear to be lost during normal fishing operations due to inclement weather, snags beneath the surface, unintended interactions with other deployed gear and marine traffic: specific schemes and policies can be put in place to reduce usual gear lost. Some examples of concrete actions to prevent fishing gear loss include: gear maintenance; reducing active gear interactions with wildlife; reducing financial and administrative burdens for port reception facilities; reducing trip lengths; and targeting education and gear stewardship programs to fishers⁴. Additionally, it is essential to provide fishers with an effective and viable disposal solution for gear that reaches the end of its useful life so it does not end up in the aquatic environment either due to a lack of viable disposal options or as a last resort.

The establishment of ***extended producer responsibility (EPR) policies and schemes for fishing gear and ropes*** represents a clear and actionable response to address one major vector of potential plastic pollution derived from fishing activities. The main goal of implementing EPR for this type of waste is to reduce marine plastic pollution by preventing and reducing the volumes of used fishing gear and ropes into the environment.

¹ Lebreton, L., Slat, B., Ferrari, F. et al. Evidence that the Great Pacific Garbage Patch is rapidly accumulating plastic. *Sci Rep* 8, 4666 (2018). <https://doi.org/10.1038/s41598-018-22939-w>.

² Eriksen M, Lebreton LCM, Carson HS, Thiel M, Moore CJ, et al. (2014) Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea. *PLoS ONE* 9(12): e111913. doi:10.1371/journal.pone.0111913.

³ United Nations Conference on Trade and Development., 90% of fish stocks are used up – fisheries subsidies must stop. Available at: <https://unctad.org/news/90-fish-stocks-are-used-fisheries-subsidies-must-stop>

⁴ Richardson K, Hardesty BD, Vince JZ and Wilcox C (2021) Global Causes, Drivers, and Prevention Measures for Lost Fishing Gear. *Front. Mar. Sci.* 8:690447. doi: 10.3389/fmars.2021.690447



Achieving this goal will require to be done through effective collection and recycling of unwanted and end-of-life fishing gear and ropes, as well as reporting and managing accountability of such, promoting in this way the upstream prevention of abandoned, lost and otherwise discarded fishing gear and ropes.

The possibility of setting up EPR schemes for fishing gear and ropes can build upon experience on EPR at national and regional levels for other types of end-of-life products and international regulation on other related topics, applying lessons learned with consideration of the differences in nature, logistics, and conditions. Some initiatives have already been proposed around this topic, including within the European Strategy for Plastics in a Circular Economy⁵ and the Commission Implementing Decision (EU) 2021/958 of 31 May 2021 laying down the format for reporting data and information on fishing gear placed on the market and waste fishing gear collected in Member States and the format for the quality check report in accordance with Articles 13(1)(d) and 13(2) of Directive (EU) 2019/904 of the European Parliament and of the Council.

The following points present a series of recommendations to be considered by authorities and other relevant stakeholders.

Recommendations for setting up EPR policy and schemes for fishing gear & ropes

1. Apply a staged approach

Experience with other materials and products shows that instituting EPR schemes that apply to synthetic or polymer fishing gear and ropes into legal and policy frameworks can be better addressed through a step-by-step approach. Similar to what was implemented for CFCs/, new EPR schemes can start with the establishment of voluntary programs to begin with and later move on to include binding obligations at national level regulations. An important aspect to consider within a staged approach is to give long-term visibility to what these stages are and when they come into effect. Also, schemes should be legally mandated for all producers of fishing gear and ropes, and suppliers of such fibres, to avoid free-riders while setting responsibilities for all actors in the value chain. Consideration should be made in regards to special characteristics of small producers in different areas, to avoid disproportionate burdens.

Furthermore, States could consider recognition and certification procedures for those who responsibly manage end-of-life fishing gear within the voluntary schemes, providing also certifications for the specific gear, to ensure accountability of the fishing gear and ropes. This model can later be included within the national legal framework, making the obligation to report fishing gear and ropes consumption binding. Measures to promote circularity can also be taken at this stage. In the case of the EU, obligation for Member States to report on fishing gear placed on the market and waste fishing gear collected is already mandatory⁶ and requires the delivery of a quality check report that provides a sufficient basis for verifying the accuracy, reliability and comparability of this information and data between the Member States. Similar approaches could be taken in different regions.

⁵ European Commission, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, A European Strategy for Plastics in a Circular Economy, COM(2018) 28.

⁶ Article 8.8 of the Single-Use Plastic Directive and the Commission Implementing Decision (EU) 2021/958 of 31 May 2021.



It is essential to also consider the regional and international scope of possible policy instruments. Voluntary guidelines and international codes of conduct adopted through already established international bodies or organizations, are a potential step to take. Regional guidelines on EPR have been developed in areas such as the European Union. These sorts of guiding documents can be adopted/implemented in other regions as well, and be disseminated throughout fishing communities and in as many languages as possible to make them accessible. On a longer term, States could consider incorporating these provisions into existing international instruments such as the International Convention for the Prevention of Pollution from Ships (MARPOL), and also contemplate building this aspect into future international initiatives and commitments, one of which is the possible new international legally binding agreement on plastic pollution currently being discussed in the framework of the United Nations Environment Assembly (UNEA).

2. Clearly define legal terms related to EPR for fishing gear and ropes

Considering EPR to manage ALDFG entails a necessary agreement on the basic terms related to possible schemes in this sense. In principle, it is crucial to develop policies that can set the standard for what is understood for producers of fishing gear, users of fishing gear and ropes, what definitions are going to be used for ALDFG and ropes, as well as other detailed concepts. This should also include which responsibilities the EPR scheme will place upon the producers, as this could vary from collection targets, recycling targets, targets for use of recycled content, traceability, awareness raising measures for litter prevention and good waste management and more (see also recommendation 9). Furthermore, such definitions can be conceived regionally as a way to broaden the scope and impacts of EPR schemes in the long term. It is also important to agree on the scope of implementation of a possible EPR system, including aspects such as whether rules apply equally to synthetic and naturally occurring materials and the consequences of these decisions.

3. Conduct coordinated design and implementation at national, local, and international level

To maximize positive impact, regulations and policies created specifically for this purpose should be done in coordination and accordance with other policies and regulations related to EPR that are already in place, and incorporated into new legislation and policy designing. The optimization of existing resources, facilities and networks, such as existing sorting facilities for fishing gear and other regional networks, is key in developing successful EPR schemes in this sense.

4. Consider Platform-based design and implementation of the EPR schemes

Regional or thematic platforms such as the EU or specific international organizations can set aligned policies and guidelines that can apply to a wider range of States to broaden reach to regional and global scale. One clear example in this sense is the European Union with the mandate for mandatory fishing gear and ropes EPR schemes at the Member State level by 2025 via the EU Single Use Plastics Directive (SUP)⁷ and accompanying Port Reception Facilities Directive⁸. Additionally, research has advanced in assessing the different levels of risks derived from different types of gear based on derelict gear production rates, gear quantity indicators of catch weight and fishing grounds area, and adverse consequences from derelict gear⁹. Other risk assessments and general recommendations on fishing gear management throughout the seafood value chain have been developed by organizations such as the Global Ghost Gear Initiative (GGGI) Best Practice Framework for the Management of Fishing Gear¹⁰. These sets of available data and analysis can be incorporated into an eventual EPR policy and schemes, maximizing the use of available resources.

⁷ DIRECTIVE (EU) 2019/904 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 June 2019 on the reduction of the impact of certain plastic products on the environment. Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0904&from=EN>

⁸ Directive (EU) 2019/883 of the European Parliament and of the Council of 17 April 2019 on port reception facilities for the delivery of waste from ships, amending Directive 2010/65/EU and repealing Directive 2000/59/EC

⁹ Gilman, E. Status of international monitoring and management of abandoned, lost and discarded fishing gear and ghost fishing. *Mar. Policy* 60, 225–239. <https://doi.org/10.1016/j.marpol.2015.06.016> (2015).

¹⁰ Global Ghost Gear Initiative (2021) Best Practice Framework for the Management of Fishing Gear: June



5. Create and strengthen governance mechanisms

Widely implementing EPR schemes and commitments around fishing gear and ropes, will require setting up governance structures with specific mandates and functions that provide for operational objectives, transport/logistics compliance, monitoring, evaluation, reporting and communication of results. It is also essential to identify and act upon synergies of new mechanisms and existing regulations at local, national and international levels to guarantee a coordinated effort and avoid duplicity of functions. Although specific materials to consider and pathways to follow for this case would be different than for other types of plastics, general regulations and governance structures and procedures already in place or being adopted in the future should include fishing gear and ropes as one of the products covered by EPR, with special regard precisely to those special characteristics.

6. Management and distribution of funds

The selected governance mechanisms should also enable for administrative structures that deal with management of funds obtained through EPR schemes including appropriate collection, handling, and distribution. Applicable standards or policy should also involve basic guiding on what are the principles of such management, how to set fees that fairly distribute the share of the management burden, and the purpose of this setting, as well as how the governance structure should include fund management processes. Ideally, such funds should be administered by a party independent from the industry paying into the EPR systems.

Likewise, consideration should be given to what activities can be financed by EPR funds and what activities cannot be funded, particularly with a view to ring-fencing collected funds so that they can only be spent on activities which further the goals of the EPR regime.

7. Address jurisdiction challenges

As jurisdiction works uniquely when it comes to marine spaces, it is important to address the different obligations and responsibilities, as well as the geographical scope covered by potentially developed EPR schemes around fishing gear and ropes. Any national, regional, or international policy or instrument should consider and incorporate international instruments provisions, such as the United Nations Convention on the Law of the Sea (UNCLOS), congruent national and regional legislation, as well as other relevant international agreements. It is also crucial that EPR schemes are implemented on a wider regional scale, to avoid loopholes and to promote cross-boundary solutions.

8. Develop financial schemes and instruments that support effective implementation of EPR for fishing gear and ropes

An effective EPR scheme for fishing gear and ropes should be accompanied by a set of options for financial instruments that benefit the actual implementation of the scheme. These instruments can include financial and/or other types of incentives, potential deposit-return systems that benefit the recovery of the material, use of recycled content in fishing gear and ropes, and other benefits. These are especially important during a potential initial “voluntary” phase, recognizing companies that willingly participate and encouraging others within the sector to engage.

Further, the EPR should require all fisheries to report their fishing gear and ropes consumption and only permit them to purchase e.g. new nets when they can present EOL certificates for their old nets, even if EOL



includes lost or discarded by accident or emergency. In case of the latter, reported loss should be mandatory, together with GPS locations¹¹, which will facilitate retrieval.

9. Design effective implementation plans for EPR

EPR schemes are a valuable and cost-effective option that would allow for solutions placed on the post-consumer phase of synthetic fishing gear, but that can also influence relevant decisions at the upstream level to minimize downstream harms. EPR allows for solutions to be flexible and fosters innovation. Private and public approaches should prioritize the promotion of upstream solutions that deal with the requirements for effective recycling of this gear, as well as help preventing gear loss in the environment. From the product design stage, EPR schemes and regulations should consider the promotion of mandatory percentages of recycled and recyclable content for the products in applications of similar value, and improved gear design which considers ease of disassembly and separation of components/materials, thus adding value to products and enable repair / reuse / recycling, and promoting benefits that engage the different actors in the system. Awareness raising measures from the producers within the EPR and other stakeholders could help limiting loss of fishing gear and ropes. These can be strengthened by collection and recycling efforts initiated within the EPR, as well as engagement of the private sector and other key stakeholders involved.

10. Implement regular monitoring and evaluation

Within a possible implementation of these EPR systems, it will also be important to measure by impact. In this sense, producers should commit to deliver mandatory reports reflecting the actual recycled material quantified, which will also help in the development of estimations for the global preventative effort derived from that recycling. In this sense, it would be also essential to align the point at which these measurements are taken across various jurisdictions, as material quantities may vary within the same process¹². Tonnages collected at port reception facilities will differ to tonnages entering a recycling facility, and the tonnages of recycled product will vary depending on process efficiency, as well as all other management pathways, including landfills and incineration, to have more complete data available

The GGGI has developed a global database for ALDFG¹³ that collects knowledge around sources, locations, amounts, types, fates, and impacts of ghost gear around the world. It is the largest centralized database concerning ALDFG in the world, including data from organizations from around the globe including NGOs, governments, IGOs, seafood industry and academia. Providing data on the lifecycle of fishing gear and ropes, including quantities recycled or otherwise disposed of at end-of-life, into this already established database can aid in the quantification of actual results. Data analysis in this sense can also aid States and authorities in identifying ghost gear “hotspots”, high risk fisheries for gear loss and temporal and spatial trends in ghost gear abundance and type, for better scientifically supported decision-making. There are also other databases that contribute to amplified knowledge on the issue, such as EMODnet¹⁴ which has mapped the density of fishing-related items at the seafloor, expressed as the average number of bags collected by fish-trawl surveys over the period of one year. Information and data made available through these tools is essential for tackling marine litter related to fishing gear.

11. Engage key stakeholders

¹¹ The European Commission Fisheries Control Regulation (2009/1224/EC), article 48, provides an example for a procedure of fishing gear loss reporting. Reporting includes flag and coastal states and minimum information requirements.

¹² For example, tonnages collected at harbour may differ from tonnages entering a recycling facility and the tonnages of recycled product will vary depending on process efficiency

¹³ <https://globalghostgearportal.net/>

¹⁴ European Marine Observation and Data Network. [Map of the week – Seabed litter – Fishing related items density | European Marine Observation and Data Network \(EMODnet\) \(europa.eu\)](#) Available at: [Map of the week – Seabed litter – Fishing related items density | European Marine Observation and Data Network \(EMODnet\) \(europa.eu\)](#)



No EPR scheme will be effective and successful without active participation and engagement from the variety of relevant actors involved in the different stages of the process. It is essential to involve the private sector and to understand their perspective and concerns, and help them transform to a circular economy. Equally important should be raising awareness with and including participation of the fisheries sector from all the different sub-sectors, and analysing their roles in the whole scheme.

Conclusions

Considering the establishment of extended producer responsibility (EPR) policy and schemes for fishing gear and ropes is a truly challenging endeavour, but one that promises the possibility of reducing the impact of end-of-life fishing gear in the environment. States, regional and international organizations, as well as the private sector, consumers, and communities, have a chance of setting the basis for a promising positive change that would require commitment and willingness from all fronts. Although this individual action would not be a definite solution for all plastic pollution, the current context calls for implementing diverse actions in a rapid and effective manner. EPR for fishing gear and ropes can effectively contribute to the positive results that are urgently needed.