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# COMMITTEE ON FISHERIES

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### ADDRESSING ENVIRONMENTAL ISSUES DURING FISHING OPERATIONS: PROGRESSING TOWARDS THE 2025 REDUCTION OF ALDFG

#### Executive Summary

Addressing environmental impacts associated with fishing operations in capture fisheries has been a priority topic area on the agenda of FAO's Committee on Fisheries (COFI) for many years. Thus, issues such as bycatch and discards, abandoned, lost or otherwise discarded fishing gear (ALDFG), and seabed impact of bottom-contacting gears remain areas of focus for FAO and its Members with recommendations for further work regularly made. In recent years, FAO has increased its work in the assessment and monitoring of environmental impacts of fishing operations and the development of technologies, methodologies and guidelines which support FAO's Code of Conduct for Responsible Fisheries and its related instruments, the Blue Growth Initiative (BGI) and the ecosystem approach to fisheries. It is now also recognized that this work is crucial in supporting the 2030 Agenda for Sustainable Development, reflecting the targets of SDG14 in particular on conserving and sustainably using the oceans, as well as other SDGs related to fighting hunger and securing food for all.

This document is provided in conjunction with COFI/2018/10, COFI/2018/Inf.25, COFI/2018/SBD.17 and COFI/2018/SBD.18. It is intended to serve as a basis for further discussion, and to seek guidance from COFI on FAO's ongoing and future work addressing environmental impacts of fisheries operations, in particular preventing and reducing ALDFG.

The Technical Consultation on the Marking of Fishing Gear held on 5 to 9 February 2018, recognizing the gear-marking guidelines as an important tool in preventing and mitigating the impact of ALDFG and in combating illegal, unreported and unregulated (IUU) fishing, recommended that COFI consider the development of a global strategy to address ALDFG. This document elaborates on the recommendations of the Technical Consultation and the proposed Voluntary Guidelines on the Marking of Fishing Gear, taking into account other international instruments and developments which highlight the urgency of addressing environmental impacts of fishing operations in a global and holistic scope, with particular emphasis on the issue of ALDFG.

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This document provides an overview of work that has been undertaken by FAO on reducing environmental impact of fishing operations focusing on the issue of ALDFG. It proposes a framework for the development of a global ‘umbrella’ programme to support the implementation of the Voluntary Guidelines on the Marking of Fishing Gear and other measures, including relevant existing voluntary and binding instruments, to prevent, reduce and eliminate ALDFG and its harmful impacts. The proposed programme supports the implementation of Sustainable Development Goal 14, in particular:

- SDG 14.1 - significant reduction of marine pollution of all kinds, including marine debris for which ALDFG constitutes a significant part);
- SDG 14.2 - sustainably manage and protect marine and coastal ecosystems, avoiding significant adverse impacts); and
- SDG 14.4 - end IUU fishing and destructive fishing practices.

## I. BACKGROUND

1. Fishing operations can have negative impacts on marine environment and marine ecosystems. Fishing can result in bycatch and discards, affect seabed and benthic communities, reduce and sometimes decimate populations of marine animals including endangered species, and pollute the marine environment, in particular, by abandoned, lost or otherwise discarded fishing gear (ALDFG).
2. ALDFG has negative impacts on marine ecosystems, wildlife, fisheries resources and coastal communities. Although robust estimates are lacking for gear loss and quantities of ALDFG globally, it is thought to represent a significant portion of total marine debris; for example, almost 50 percent is reported in a recent paper on the Great Pacific Garbage Patch.
3. The issue of marine debris, including ALDFG has been addressed in several United Nations General Assembly Sustainable Fisheries Resolutions. The urgency of addressing the ALDFG issue has been underscored within the UN's 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) with SDG 14.1 calling for a significant reduction of marine pollution of all kinds by 2025. The United Nations Environment Assembly (UNEA), the Convention on Biological Diversity (CBD) and The Convention on the Conservation of Migratory Species of Wild Animals (CMS) have all adopted Resolutions or passed Decisions on marine debris in recent years which call for increased action to address the issue. There have also been many Voluntary Commitments made by governments across several high-level forums outlining specific actions they will take to reach their national targets relating to marine debris reduction.
4. FAO has recognized ALDFG as a major global problem since the 1980s. The issue has been discussed and considered through the FAO's Committee on Fisheries (COFI) in numerous sessions. Requirements to minimize ALDFG and the responsibility to recover lost gear are included within the 1995 FAO Code of Conduct for Responsible Fisheries (CCRF) and related Technical Guidelines. Over the last decade, FAO has made progress in addressing the problem of ALDFG, including:
  - 1) Conducting the first global assessment of ALDFG and publishing the report *Abandoned, lost or otherwise discarded fishing gear* in 2009. The report, a joint effort between FAO and the United Nations Environment Programme (UNEP), provided first and best available information on ALDFG on a global scale as well as a comprehensive review of the magnitude, composition, causes and impacts of ALDFG.
  - 2) Carrying out additional joint work of FAO and UNEP and publishing the report *Abandoned, lost or otherwise discarded gillnets and trammel nets - methods to estimate ghost fishing mortality, and the status of regional monitoring and management* in 2016. This study focused on ALDFG from gillnet and trammel net fisheries and refined methods to estimate ghost fishing mortality rates and impacts.
  - 3) Convening an Expert Consultation on the Marking of Fishing Gear from 4 to 6 April 2016 under the direction of the Thirty-first Session of COFI in 2014. The Expert Consultation produced Draft Guidelines on the Marking of Fishing Gear and recommended (and subsequently COFI 32 endorsed) that pilot projects on gear marking be carried out to support the proposed Draft Guidelines.
  - 4) Implementing two pilot projects in 2017:
    - A global feasibility study focusing on the marking of fish aggregating devices (FADs)
    - A field project in Indonesia focused on the practical application of gear marking and lost gear retrieval in small-scale coastal fisheries
5. FAO has collaborated with many organizations including relevant UN Agencies and Programmes, NGOs and academic institutions in addressing marine litter and ALDFG, including:

1) The International Maritime Organization (IMO), which addresses marine litter through its relevant instruments: the International Convention for the Prevention of Pollution from Ships (MARPOL), Annex V, and the Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Protocol). FAO exchanges information with IMO on ALDFG and its management through participation in relevant IMO Committees, including IMO's Marine Environment Protection Committee (MEPC) as well as the Joint FAO/IMO Ad Hoc Working Group on IUU Fishing and Related Matters (JWG) which provides a platform for exchange of information and identification of collaborative opportunities. In April 2018, MEPC72 agreed to include a new output "Development of an action plan to address marine plastic litter from ships" in the 2018-19 biennial agenda of the Committee and invited FAO to keep the Committee updated on its work related to addressing marine plastic litter. The value of collaboration between FAO and IMO was specifically highlighted and the Committee also noted the recent recommendations from the JWG that have been endorsed by the Fourth Session of the IMO Sub-Committee on Implementation of IMO instruments (III4), which included:

- Agreement that gear-marking is a critical tool for mitigating ALDFG and combating IUU fishing;
- Inviting Member Governments to consider the potential of the FAO Guidelines on the marking of fishing gear, if adopted, as a tool to support the implementation and possible need of amendment of MARPOL Annex V;
- Requesting the IMO Secretariat to continue its cooperation with the FAO Secretariat and to consider attending the FAO's Technical Consultation on the Marking of Fishing Gear

2) International Council for the Exploration of the Sea (ICES): FAO and ICES co-sponsor the Working Group on Fishing Technology and Fish Behaviour (ICES-FAO WGFTFB). During its annual meetings, ICES-FAO WGFTFB deliberates and discusses issues related to ALDFG, especially modifications to fishing gears and their operations that prevent, reduce and mitigate the impact of ALDFG.

3) Global Partnership for Marine Litter (GPML)/UNEP: The GPML, facilitated by UNEP under the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), plays an important role in providing an overarching global partnership and framework to support collaborative activities on preventing and reducing marine litter including ALDFG. FAO is a Steering Group member of the GPML that contributes to, and benefits from, the support of UNEP and the GPA in collaborative activities related to the marine litter including ALDFG.

4) Global Ghost Gear Initiative (GGGI): GGGI is a global cross-sectorial collaborative platform led by World Animal Protection and specifically focuses on preventing and mitigating the impact of ALDFG. FAO has recognized the technical knowledge and stakeholder outreach capability of GGGI and has collaborated with GGGI through information exchange and partnerships on ALDFG pilot projects.

## **II. REDUCING ENVIRONMENT IMPACT OF FISHING OPERATIONS - THE WAY FORWARD**

6. FAO proposes the development of a new global programme of work to reduce environmental impacts of fishing operations, which will include particular emphasis on preventing, reducing and mitigating the impact of ALDFG. This global programme will provide a framework for projects (national, regional and international) which will support the implementation of the Voluntary Guidelines on the Marking of Fishing Gear. The Guidelines are considered an important tool for addressing ALDFG and combating IUU fishing, the latter is also considered a significant contributor

to illegal discarding of fishing gears. The global programme will also support other measures to achieve significant reduction of ALDFG by 2025 as stipulated in SDG14.1.

7. The proposed global programme will support FAO Members, including coastal and small island developing states (SIDS) to adopt a programmatic national and regional approach to addressing ALDFG and its harmful impacts. The programme will stress the importance of collaboration and cooperation with relevant partners, including States, regional fisheries management organizations and arrangements (RFMO/As) and regional fishery bodies (RFBs), other relevant UN agencies and programmes, as well as other relevant and interested parties, such as academic institutions and non-governmental organizations which have technical expertise or stakeholder outreach capacity.

8. Through the development of this programme, FAO seeks to provide global leadership in the effort to address ALDFG. It is recognized that there is significant cross-sectoral interest in addressing the issue of ALDFG, and marine litter in general, across different UN Agencies, intergovernmental organizations and government ministries, including those dealing with the environment, tourism, shipping and fishing, therefore holistic and integrated solutions will be required. It is also recognized that FAO will need to increase its engagement with other industries including plastic manufacture and recycling.

9. Circular economy approaches to the management of end-of-life fishing gear will also be considered under this programme with particular emphasis on inspiring and supporting local communities to realize and benefit from the hidden opportunities of end-of-life fishing gear and to gain associated economic and social benefits while reducing ALDFG on the land and at sea.

10. The main purpose of the programme is to achieve cohesive implementation of ALDFG prevention, reduction and elimination measures at national, regional and global levels, including through the implementation of relevant binding and voluntary instruments, such as the FAO International Guidelines on Bycatch Management and Reduction of Discards, FAO's Code of Conduct for Responsible Fisheries, FAO Voluntary Guidelines on the Marking of Fishing Gear, FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal Unreported and Unregulated Fishing (PSMA), United Nations Agreement on Straddling Fish Stocks and Highly Migratory Fish Stocks, IMO's MARPOL Annex V, London Protocol.

11. FAO has the mandate and technical expertise in promoting global instruments for fisheries governance and in supporting the development of related policies, laws and institutional capacity for their implementation. The development of this global programme is intended to enhance the work of FAO in strengthening global fisheries governance and the managerial and technical capacities of FAO Members related to the issue of ALDFG, and where relevant, to provide complimentary support to address IUU fishing, i.e. through the implementation of the Voluntary Guidelines on the Marking of Fishing Gear.

12. It is envisioned that the proposed programme will support the development and implementation of national and regional action plans as well as other appropriate coordinating mechanisms, especially in small-scale fisheries and in developing States.

13. The proposed programme supports FAO's Strategic Objective 2 (SO2) by making fisheries more productive and sustainable through the reduction of fishing costs due to gear loss, improvement on safety at sea due to navigation hazards posed by ALDFG, reduction of resource wastes due to ghost fishing by ALDFG and the potential to gain economic and social benefits from circular economy approaches. The programme will improve the management of fishing gear and implementation of measures to prevent, reduce and eliminate ALDFG.

14. The proposed programme will augment FAO's contribution towards the UN 2030 Agenda for Sustainable Development, not only to SDG 14 (conserve and sustainable use the oceans, seas and marine resources), but also towards several other SDG goals and their targets, in particular, SDG 1 and

SDG 2 due to the threat that ALDFG poses to global food security and livelihoods of fishing communities, especially in SIDS.

### III. EXPECTED PROGRAMME BENEFITS

15. The proposed global programme will be designed to produce a wide range of benefits, including:

- 1) Improved understanding of the scale of ALDFG problem through baseline assessments on the quantity of ALDFG on a global scale.
- 2) Reduction of existing quantities of ALDFG in the marine environment.
- 3) Reduced incidences and risk of negative interactions between ALDFG and marine wildlife, vessels and marine habitats.
- 4) Reduced pressures on fish stocks due to decreased levels of ghost fishing, contributing to recovery of fish stock and improved economic return, livelihoods and food security of coastal communities and those dependent on them.
- 5) Increased implementation of existing relevant binding and non-binding instruments.
- 6) Improved fisheries governance including improved identification of IUU fishing activities through implementing gear-marking systems.
- 7) Wider spread of the concept of circular economy within the fisheries sector and its associated economic and social benefits through the development of recycling schemes (closed loop where possible), deposit and buy-back schemes and innovative designs of fishing gear.

### IV. PROGRAMME IMPLEMENTATION

16. The global programme will comprise a partnership framework with projects supporting the same development objective and financed through different sources.

- 1) Participating countries would be able to draw upon assistance provided by the programme to implement strategies and measures that contribute towards the overall objective of preventing and reducing ALDFG and its harmful impacts.
- 2) Projects will be nationally or regionally focused and coordinated by FAO alongside local project partners determined by FAO in consultation with programme resource partners.
- 3) Countries which have already identified a need to address ALDFG, have made commitments to do so or would like to develop their capacity to address this issue in collaboration with FAO, will be encouraged to formally express their interest to FAO. Preference will be given, especially in the initial phase, to States which have demonstrated commitments to addressing ALDFG and which have limited capacity to implement measures and strategies without assistance. The food security, socio-economic, environmental and navigational impacts of existing levels of ALDFG will also be taken into account.

17. The needs of individual projects and their specific objectives will vary for different projects; however, it is envisioned that the projects could incorporate some or all following elements:

- 1) Monitoring and assessment: Developing and harmonizing globally applicable methodologies for understanding the scale of the problem, identifying baselines and monitoring the impact of solutions being implemented.
- 2) Promoting best practices: Defining, designing and implementing best practices and solutions to address ALDFG problem regionally or globally including the development and strengthening

of ALDFG Action Plans at regional and national levels and the provision of capacity development.

- 3) Supporting policy and enforcement measures: Addressing gaps and shortcomings in national and regional policies related to ALDFG, and monitoring and enforcement measures.
- 4) Enhancing cooperation: Identification of opportunities for enhancing cooperation, including across relevant UN agencies and programmes, between relevant regional bodies such as RFMO/As and other relevant regional agreements or programmes (e.g. regional seas programmes and conventions), and among adjacent States.
- 5) Supporting innovation: Developing and implementing innovative technical and social solutions to address ALDFG problems including preventing, reducing and eliminating ALDFG and its impact.
- 6) Encouraging recycling and growth of circular economy: Developing and practicing circular economy models for the management of fishing gear, including gear recycling schemes which are closed-loop where possible, and deposit schemes for used fishing gear, repurposing end of life fishing gear, and scaling-up such operations to enhance their impacts.

18. Several mechanisms and tools will be used to deliver the programme including through informed and participatory processes, encompassing policy, legal and technical assistance and capacity building/competency based training as well as investment in research and technical development on technical solutions and tools, including continued work to define and develop best practice measures to meet the aims of the programme.

19. The programme will be implemented over a period of five years, after which its progress and outcomes will be reviewed to determine its contribution to SDG 14.1. Continued programmatic work may be needed to further contribute to goals of the UN 2030 Agenda for Sustainable Development.