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FAO DSF Workshop Report-Proactive contributions from industry to sustainable deep-sea fisheries

The Food and Agriculture Organization of the United Nations (FAO)

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Abstract	<p>The FAO implemented Common Oceans Deep-sea Fisheries (DSF) Project organized a workshop with DSF industry operators to explore proactive contributions from industry to sustainable DSF.</p> <p>Representatives from the Mediterranean (bottom trawl), Indian Ocean (bottom trawl and demersal longline), Southeast Atlantic Ocean (bottom trawl and demersal longline), South Pacific (demersal longline) and Southern Ocean (bottom trawl and demersal longline) gathered to discuss common challenges related to non-target catch reporting, industry contributions to scientific processes in RFMOs and effective implementation of management measures. The workshop also explored the possibility of establishing an industry led global DSF operators' network.</p> <p>The workshop report identifies some key recommendations that were drawn from the meeting, directed largely at RFMOs and FAO.</p>

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² Documents available only to members invited to closed sessions.



Deep-sea fisheries project

Workshop Report Proactive contributions from industry to sustainable deep-sea fisheries

Background

1. The Deep-sea Fisheries under the Ecosystem Approach (DSF) project is one of five child projects of the Global Environmental Facility funded Common Oceans Program Phase II (2022-2027). The DSF project is implemented by FAO and executed by the General Fisheries Commission for the Mediterranean (GFCM), in collaboration with co-financing partners, which include the seven regional fisheries management organizations (RFMOs) responsible for the management of deep-sea fisheries stocks in areas beyond national jurisdiction (ABNJ)³, as well as other international and national organizations⁴. The objective of the project is to ensure that DSF in the ABNJ are managed under an ecosystem approach that maintains demersal fish stocks at levels capable of maximizing their sustainable yields and minimizing impacts on biodiversity, with a focus on data-limited stocks, deepwater sharks and vulnerable marine ecosystems.

2. There is a recognition of the important technical and operational expertise held in the fishing industry that is integral to the delivery of sustainable deep-sea fisheries, however, there is often a considerable separation between discussions at RFMO Commission and Scientific bodies levels and the realities of fishing vessel operations. Output 2.1.2 of the DSF Project (Frameworks to improve industry contributions to sustainable DSF) aims to make the technical expertise held by industry available and accessible as an input for the design and implementation of measures, to improve the long-term sustainability of fisheries and the protection of deep-sea biodiversity.

3. The deep-sea fisheries that operate in the ABNJ target a number of the same, or ecologically very similar, fish species using similar gears and with similar ecosystem impacts in fisheries managed by different RFMOs. One of the aims of the DSF Project is to create a forum for knowledge sharing and information exchange between experts from the deep-sea fishing industry to share experiences

³ General Fisheries Commission for the Mediterranean (GFCM), North East Atlantic Fisheries Commission (NEAFC), Northwest Atlantic Fisheries Organization (NAFO), North Pacific Fisheries Commission (NPFC), South East Atlantic Fisheries Organization (SEAFO), Southern Indian Ocean Fisheries Agreement (SIOFA) and South Pacific Regional Fisheries Management Organization (SPRFMO)

⁴ International Council for the Exploration of the Sea (ICES), Southern Indian Ocean Deepsea Fishers Association (SIODFA), International Coalition of Fisheries Association (ICFA), and the National Oceanic and Atmospheric Administration (NOAA) of the United States of America

of challenges and solutions, including proactive contributions from industry, to achieving sustainable deep-sea fisheries.

The Workshop

4. The DSF Project convened a workshop in Barcelona, Spain from April 21 to 22, 2024, the timing and venue were chosen to coincide with a major seafood trade fair with the aim of increasing participation from experts with operational experience and knowledge of deep-sea fisheries. Participants were informed that the workshop would be conducted under “Chatham House rules” with the aim to have open discussions. The workshop focussed on the contribution of technical and operational knowledge from deep-sea fisheries operators to RFMO processes. In recognition of the procedural modalities of industry representation and engagement at RFMO meetings, the workshop did not include any consideration of mechanisms to facilitate direct industry engagement in RFMO discussions or decision-making processes.

5. Each session of the workshop included an introductory scene-setting presentation and a list of guiding questions to facilitate discussion. Four main themes were considered at the workshop as described below. For each theme, after extensive discussion, the DSF Project team summarised the key conclusions and recommendations and presented them to participants for their input and agreement. These conclusions and recommendations are presented below, with some additional background or information added to provide additional explanation or context.

How can the industry help to improve non-target catch reporting in deep-sea fisheries?

6. The workshop explored the challenges with non-target catch reporting in deep-sea fisheries and agreed that there are two important aspects to catch reporting: (i) the amount of catch, including all elements of the catch and (ii) the detail that is included, especially in the level of taxonomic resolution, that maximises the utility of the information provided. There are important differences in the approaches used to estimate the total amount of catch in demersal longline and trawl fisheries and the level of detail that is reported in the catch is generally dependent on the presence of scientific observers on the vessel.

7. While all RFMOs require total catch to be reported, and the *International Guidelines for the Management of Deep-Sea Fisheries in the High Seas* define total catch as “everything brought up by the gear”, it is unclear whether the catches reported to different RFMOs are, or are required to be, consistent with this definition.

8. The workshop considered these challenges and concluded and recommended the following:

- i. Regardless of whether an element of the catch is considered a target or non-target species the reporting of catches is currently most effective for species that have catch limits (or other management measures) in place. In order to understand the ecosystem impacts of fisheries, **all catch, including discards and ‘released alive’ should be reported.**

- ii. Recognizing that the catch that is reported may not represent total removals (i.e. everything brought up by the gear), **RFMOs should consider carrying out fishery-specific risk assessments to determine catch reporting priorities**, including the appropriate level of taxonomic resolution and reporting units (i.e. number and/or weight in the catch).
- iii. **Catch reporting instructions should include detailed processes for reporting any catch that is released alive**, including the numbers released and the appropriate taxonomic resolution (e.g. sharks – deepwater, pelagic, rays and skates) to be reported. Importantly the reporting requirement units (i.e. number and/or weight in the catch) for ‘released alive’ should provide sufficient information to quantify this aspect of the catch but should not compromise the survival of the released individuals (i.e. whether the need for additional handling to record weight is justified). **The specification of this reporting requirement should be adapted at the RFMO level** to reflect the relevant fishing techniques, fished stocks and local stakeholders; it should include a margin of tolerance that is reviewed periodically.
- iv. **It is essential that catch reporting forms/formats are reviewed alongside the development of catch reporting instructions** to ensure that it is clear how all of the requested data is to be reported.
- v. **RFMOs should ensure that there are clear instructions and definitions on catch reporting that are defined at the RFMO level and at a fishery-specific level.** Contracting Parties should also be encouraged to use these instructions as a basis for preparing their vessel-specific reporting instructions and associated training to support fishing operators.
- vi. In order to improve the level of detail in catch reporting, **there should be a combination of fishery-specific species identification materials developed**, e.g. laminated ID charts in relevant languages that can be wall-mounted in the fish sorting area, **as well as more detailed taxonomic keys for observers** (e.g. phone-based image recognition apps).
- vii. **RFMOs should implement data quality assessment processes that encourage improved taxonomic detail in catch reporting** and find ways to address real (or perceived) negative consequences for fishers of unintentional misidentification being considered as catch mis-reporting.
- viii. A common aspect of catch reporting in RFMOs is the use the FAO 3-alpha (AFSIS) codes, however, the understanding of the taxonomic hierarchy in the codes may not always be apparent when catch reporting is initially recorded. Given the importance of these codes in DSF the **FAO should consider providing training on the use of FAO 3-alpha codes**, including details of how the use of some codes might be considered as inappropriate because there are alternatives that would facilitate improved catch reporting. For example, there could be advice to avoid using (or simply removing) the code SKK (Elasmobranchii) as this could relate to either a skate, ray or a shark species, even though there are very easily recognizable differences in morphology and relevant FAO 3-alpha codes available.

ix. In considering priority species for catch reporting, which are typically based on frequency of occurrence or contribution by weight, **RFMOs should also consider identifying key indicator species, that may be caught in small volumes/amounts but are indicative of ecosystem changes**, either as invasive species or climate change driven range shifts and to include these species in identification and/or guidance materials.

x. The use of automated systems to identify and count components of the catch in longline fisheries, as part of electronic monitoring systems on fishing vessels, is an evolving area of data collection in which industry can play an important role in testing and development including the extension to other fishing techniques and multi-species fisheries.

How can the fishing industry go beyond simple catch reporting and provide a platform for marine science, including sample collection and instrument deployment, to support fisheries management?

9. Participants discussed the extent to which conducting fishery-independent research to support sustainable fisheries in ABNJ is inevitably, and increasingly, constrained by the availability of funding. There may also be a mis-match in the scientific priorities for national science programmes and science that has direct relevance to fisheries management, especially in the ABNJ. In many regions the only data available for fisheries management is the catch data provided in accordance with the fisheries regulations in place.

10. The workshop considered these challenges and concluded and recommended the following:

i. The majority of the costs of at-sea research are for vessel time, so there is the potential for the fishing industry to provide a platform for marine science, including sample collection and instrument deployment, to support fisheries management or the broader scientific community. However, **while there are a number of examples where industry has provided scientific data and conduct research voluntarily, there is concern that often these, and the associated expertise and technical knowledge, are not fully considered or incorporated into RFMO scientific processes.**

ii. Catch and effort data, which is collected by the industry is a fundamental part of the management of fisheries, so there is no evidence of an in-principle objection to using data collected by the fishing industry. However, data that is collected /or analyses that are presented by industry may be treated differently from catch data that is provided to RFMOs by the flag state.

iii. Successful contributions of science from industry have largely been motivated by the need to comply with strong regulatory frameworks (e.g. bird bycatch mitigation methods, toothfish tagging requirements). In the absence of appropriate regulatory framework (i.e. access control, catch limits) or the availability of national or regional funding, it is harder to structure and define the incentives and benefits to the industry.

iv. In some instances, **commercial vessels operating in the ABNJ provide far most cost-effective platforms to collect scientific information than research vessels.** For example, because of the remoteness of the locations where vessels in the ABNJ operate, they are able to facilitate the collection of in-situ oceanographic data that would otherwise not

be collected. **There are several fisheries where gear-mounted CTDs are used to collect oceanographic data and the value of this data would be greatly enhanced with the development of appropriate data quality standards within and between RFMOs.**

v. The incentives for scientists to publish their results is well recognized, however, there is a perceived risk to the industry of publishing data/analyses as these may be taken out of context and used inappropriately. These risks are not the same for a scientist. In this context, there is little doubt **that improving trust between scientists and industry will lead to improved collaboration and engender more effective engagement with the advice/outcomes. A key element to achieving this is improving communication around the objectives and need for areas of research, to break down initial barriers and build trust.**

How can management measures be better informed by industry technical knowledge to ensure that they can be translated into implementable procedures designed for use on fishing vessels?

11. The workshop discussed on how the adoption of effective fisheries conservation and management measures (CMMs) by RFMOs represents a critical stage in the process of sustainably managing global fish stocks. However, the management measures agreed by RFMOs are legal texts that are often the product of complex negotiations, which means that they are not always drafted with a focus on practical implementation. This can make compliance with those measures challenging. This creates a role for experts, either during RFMO negotiations, or post-RFMO meeting at a national or company level, with an understanding of the intent of those measures, and operations on fishing vessels, to translate the measures into implementable procedures designed for use on fishing vessels.

12. The workshop considered these challenges and concluded and recommended the following:

i. The best means for industry to provide their input into the development of CMMs is through engagement with their respective national delegation. This is most effective when it includes participation in preparatory domestic stakeholder consultation and participation in relevant RFMO meetings.

ii. In addition, or alternatively to the engagement through the national delegation, approved industry groups may participate in RFMO meetings as observers where the RFMO Rules of Procedure allow for such participation. The ability for observers to actively participate in meetings, however, differs between RFMOs

iii. **Conservation and management measures that require operational or equipment changes on vessels are likely to be more effective and implementable if the technical expertise from industry is involved in their development.** This is especially relevant when new CMMs are being developed.

iv. **Contracting Parties should consider industry input when developing or reviewing CMMs** so they can be confident that industry can effectively implement/comply with the requirements of any CMMs that apply to a fishery in which they are engaged, and that the CMM will achieves what is intended. This is especially relevant because it is the Contracting Parties that is ultimately responsible for compliance with the CMM.

v. **It is the responsibility of the Contracting Parties to transpose the requirements**

of a CMM into its national legislation and then to operationalize those requirements in the permit conditions included in the fishing license. Consistency in this process across all Contracting Parties is a key factor in strengthening industry cooperation to reach the RFMO objectives of a sustainable fisheries management and a social, environmental and economic sustainability.

Would the DSF industry benefit from the establishment of a global DSF technical and operation group and how could such a group better provide input to RFMO technical discussions?

13. In the final session, the workshop considered the lessons-learned from setting up fishery industry bodies and the ways in which a global deep-sea fishery technical and operation body might operate, and concluded the following:

- i. **There was agreement in the value of establishing an industry network for sustainable deep-sea fisheries**, which would serve as a forum to discuss and address common technical challenges and draw on collective expertise to find solutions. For example, focuses on particular species that are targeted or caught as bycatch across many RFMOs; the incidental bycatch of, or interactions with, seabirds or marine mammals; VMEs, etc. In addition, experience from other fishery industry bodies has shown that positive engagement and collaboration can be mobilised to enhance the public perception of the positive contributions of legal and sustainable DSF operators.
- ii. As the DSF Project is implemented by FAO it can provide financial and procedural support to facilitate the establishment of the industry network, but the practical operation of the network would need to be independently led and run by industry.
- iii. If such a group were formed it may be more efficient to operate as a support network rather than to anticipate it being an observer at RFMO meetings, noting that the latter would entail the operational burden on becoming an official Observer at multiple RMFOs and a financial commitment to attend various meetings of those RMFOs.
- iv. The agreed actions required to progress the establishment of the industry network, and potential themes for a follow-up workshop, include:
 - a. development of terms of reference for the network,
 - b. identifying potential key themes of interest;
 - c. broadening engagement of industry participants by region and fishery type;

Future Planning

14. Participants agreed that holding this workshop in conjunction with an event that attracts industry representatives had delivered a benefit in the attendance, especially for participants from outside Europe. Therefore, the planning for the next workshop should similarly include the timing of seafood trade-fairs scheduled in the next 12 months.

15. **All participants agreed that the outcomes of the workshop should be presented to all DSF Project partner RFMOs.**

List of Participants

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Ilaria Bellomo - Federazione Nazionale Delle Imprese Di Pesca, Italy. Project manager; Fisheries Policy expert.

Antonino Genovese - Federazione Nazionale Delle Imprese Di Pesca, Italy. Deepwater trawl fisheries for red shrimp in GFCM area.

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Paul Lansbergen - President, Fisheries Council of Canada; Chair, International Coalition of Fisheries Associations (ICFA).

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