

**10<sup>th</sup> MEETING OF THE SCIENTIFIC COMMITTEE**

*26 to 30 September 2022, Seoul, Korea*

**SC10-Obs04**

**The Deep-sea Fisheries under the Ecosystem Approach Project – an update**

*FAO*



**Food and Agriculture  
Organization of the  
United Nations**

**SPRFMO SC10 Document SC10-Obs04**

# **The Deep-sea Fisheries under the Ecosystem Approach Project – an update**

**SPRFMO Scientific Council**

**26-30 September 2022**

## **The Deep-sea Fisheries under the Ecosystem Approach Project**

**Deep Sea Fisheries Project (2022-2027)**



## Purpose

The purpose of this paper is to provide an update on the The Deep-sea Fisheries under the Ecosystem Approach (DSF) Project to be executed in 2022-2027.

## Background

The DSF Project follows on from the ABNJ Deep Sea Project (2014-2019). An information paper was submitted to SC09 (SC9-Doc 13) that lists the project activities relevant to SPRFMO. These remain the same and will not be repeated here.

## The DSF Project

The DSF Project is funded by the Global Environmental Facility (GEF) and implemented by FAO. The DSF project document<sup>1</sup> was approved by GEF in April 2022. The DSF Project development workshop was held on 24 and 26 August 2020<sup>2</sup> and the validation workshop was held on 7-8 September 2021<sup>3</sup>.

The DSF project sits within the Common Oceans Program which includes three other projects dealing with tuna fisheries, the Sargasso Sea, and cross-sectoral cooperation. One additional project, the Global Coordination Project, covers the overall coordination and operates at the programme level. The project execution is expected to start in 2022, with a duration of 5 years.

The project's Theory of Change summarizes the activities, outputs and outcomes (Annex 1). The DSF Project will be executed by the General Fisheries Commission for the Mediterranean (GFCM). The project partners are:

RFMOs:	General Fisheries Commission for the Mediterranean (GFCM) Northwest Atlantic Fisheries Organization (NAFO) North East Atlantic Fisheries Commission (NEAFC) North Pacific Fisheries Commission (NPFC) South East Atlantic Fisheries Organisation (SEAFO) Southern Indian Ocean Fisheries Agreement (SIOFA) South Pacific Regional Fisheries Management Organisation (SPRFMO)
Advisory bodies:	International Council for the Exploration of the Sea (ICES)
Government agency:	National Oceanic and Atmospheric Administration (NOAA)
Private sector:	Southern Indian Ocean Deepsea Fishers Association (SIODFA) International Coalition of Fisheries Associations (ICFA)

## Priority activities relevant to SPRFMO

These are provided in SC9-Doc13.

## Next steps

<sup>1</sup> Available upon request from Common-Oceans@fao.org

<sup>2</sup> <http://www.fao.org/3/cb2909en/cb2909en.pdf>

<sup>3</sup> <http://www.fao.org/3/cc0554en/cc0554en.pdf>

The DSF Project is currently in the process of recruiting its project manager. It is hoped that the person will be in post by October 2022 and then project execution can commence. In the interim, three activities are being planned.

### 1. Ecosystem and stock productivity models, hold symposium and provide support to RFMOs for uptake

Project Outcome 2.2 - Advice supporting science-based fisheries management improved.

Output 2.2.1 – Ecosystem and stock productivity models developed to support scientific advice (including demersal and small pelagic species and climate change effects)

NAFO is undertaking work on ecosystem status in the NW Atlantic using modelling techniques to integrate ecosystem productivity with total fish production. This work builds on existing single-species stock management and has implications for the science, management, monitoring and compliance. We are exploring the possibilities of holding a symposium on this topic with the DSF Project partners.

### 2. Rapid assessment methodologies for assessing stock status

Project Outcome 2.2 - Advice supporting science-based fisheries management improved. Output 2.2.2 - Support provided to RFMOs for improving catch recording (retained and discarded) and scientific advice on data-limited stocks)

FAO is the principal repository for the status of the global marine fish stocks. This provides a baseline to judge the effectiveness of fisheries management as required under UNCLOS and the UN FSA. Stock status is used by FAO in its biennial “The State of World Fisheries and Aquaculture” (SOFIA) publication, in determining progress towards relevant international targets such as SDG 14.4, and more recently to assist in the implementation of the WTO Agreement of Fisheries Subsidies agreement (Figure 1).

Many DSF stocks in the open oceans are classified as data-limited and their status is poorly known compared to the shallower and comparatively data-rich EEZ stocks. FAO has been using a rapid assessment method to determine the status of DSF stocks (Ovando *et al.* 2021, Sharma *et al.* 2021). We would like to work with SPRFMO stock experts and apply this method to those stocks where SPRFMO does not provide a stock status assessment. This would require sharing catch and effort time series and, if available, survey estimates.

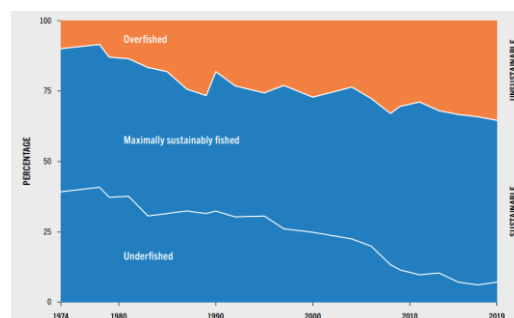


Figure 1. Global trends in the state of the world’s marine fishery stocks, 1974–2019 (Source: Figure 23 of FAO, 2022, Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence).

### 3. Review implementation of FAO DSF Guidelines

Project Outcome 2.3 - DSF impacts on biodiversity quantified, assessed and managed. Output 2.3.2 – Identification of VMEs and understanding of gear-specific SAIs from bottom fisheries improved)

The FAO DSF Guidelines were adopted in 2008 (FAO, 2009) and their implementation was reviewed in 2010 (FAO, 2011). There have been many advances over the last decade, and it is timely to do a second review which will be undertaken in the second half of 2022.

The implementation of the DSF Guidelines has in almost all regions followed a similar spatial approach (Figure 2). The review intends to examine the various management, compliance and scientific actions undertaken among the regions to implement the guidelines and to produce a report in a “best practices style” to help with future implementation. A workshop is planned for 29 November to 2 December 2022, probably in London, to finalise the report.

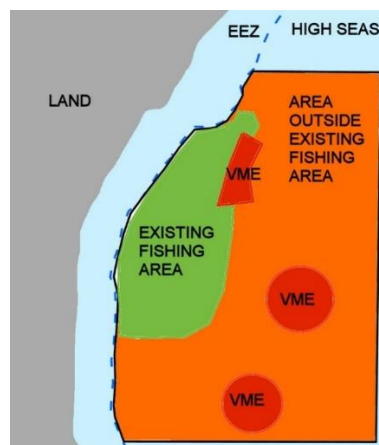


Figure 2. A typical approach to spatial fisheries management.

### **References**

FAO. 2009. Report of the Technical Consultation on International Guidelines for the Management of Deep-sea Fisheries in the High Seas. Rome, 4–8 February and 25–29 August 2008. *FAO Fisheries and Aquaculture Report*, No. 881. FAO, Rome. 86 pp.

FAO. 2011. Report of the FAO Workshop on the Implementation of the International Guidelines for the Management of Deep-sea Fisheries in the High Seas – Challenges and Ways Forward, Busan, Republic of Korea, 10–12 May 2010. *FAO Fisheries and Aquaculture Report*. No. 948. Rome, FAO. 74 pp.

FAO. 2022. The State of World Fisheries and Aquaculture – Towards a blue transformation. FAO, Rome. 266 pp.

Ovando, D. Hilborn, R., Monohan, C., Rudd, M., Sharma, R., Thorson, J. T., Rousseau, Y. and Ye, Y. 2021. Improving the estimates of the state of global fisheries depends on better data. *Fish & Fisheries*. <https://doi.org/10.1111/faf.12593>

Sharma, R.; Winker, H.; Levontin, P.; Kell, L.; Ovando, D.; Palomares, M.L.D.; Pinto, C.; Ye, Y. 2021. Assessing the Potential of Catch-Only Models to Inform on the State of Global Fisheries and the UN's SDGs. *Sustainability* 13: 6101; <https://doi.org/10.3390/su13116101>

## ANNEX 1.ABNJ DSF PROJECT THEORY OF CHANGE(2022)

