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# SIOFA contribution to FAO Deep Sea Fisheries (DSF) Project activities

The SIOFA Secretariat  
The FAO DSF Project

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<b>Abstract</b>	
<p>The FAO ABNJ Deep-Sea Fisheries (DSF) Project (2022-2027) follows on from the ABNJ Deep-Sea Project (2014-2019).</p> <p>The project is global in scope and will collaborate with and support regional activities that lead to the project's objective: 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.</p> <p>The purpose of this paper is to provide an update on the development of the FAO ABNJ Deep-Sea Fisheries Project during 2022 and the contribution of the SIOFA Secretariat to the project. Please note that SIOFA commitment to the project includes any work of the SIOFA Scientific Committee (and the rest of SIOFA).</p>	

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## Background

The FAO ABNJ Deep-Sea Fisheries (DSF) Project (2022-2027) follows on from the ABNJ Deep-Sea Project (2014-2019). Information papers on this project have been submitted to different SIOFA annual meetings starting in 2020, and have culminated in SIOFA agreeing on a co-financing decision and sending a Co-financing letter to FAO in early 2022.

## Aims

The purpose of this paper is to provide an update on the development of the FAO ABNJ Deep-Sea Fisheries Project during 2022 and the contribution of the SIOFA Secretariat to the project. Please note that SIOFA commitment to the project includes any work of the SIOFA Scientific Committee (and the rest of SIOFA).

## FAO Common Oceans programme and DSF project

The Common Oceans Program is a global partnership funded by the Global Environmental Facility (GEF), promoting sustainable fisheries and conservation of marine biodiversity in areas beyond national jurisdiction (ABNJ). Led by the Food and Agriculture Organization of the United Nations (FAO), the Program brings together the United Nations Development Program (UNDP) and United Nations Environment Programme (UNEP), regional fisheries management organizations, intergovernmental organizations, the private sector, civil society and academia. The first phase of the Common Oceans Program took place from 2014-2019 with a budget of USD 50 million, and USD 223 million in co-financing.

The second phase of the Program was endorsed at the GEFs 58th Council meeting with a budget of USD 26.7 million, and over USD 310 million in co-financing from 65 partners. It was launched in July 2022 with an inception workshop, and its projects are due to start implementation in succeeding months and be completed by 2027.

There are five child projects of the Common Oceans programme:

- Sustainable management of tuna fisheries and biodiversity conservation in the areas beyond national jurisdiction (Tuna Fisheries Project)
- Deep-sea Fisheries under the Ecosystem Approach (Deep-sea Fisheries Project)
- Building and Enhancing Sectoral and Cross-Sectoral Capacity to Support Sustainable Resource Use and Biodiversity Conservation in Areas Beyond National Jurisdiction (Cross-Sectoral Capacity Project)
- Strengthening the stewardship of an economically and biologically significant high seas area – the Sargasso Sea (Sargasso Sea Project)
- Global Coordination Project

The following sections of this paper will focus on the Deep-sea Fisheries Project (DSF project), as it is the most relevant component for the consideration of the SIOFA Scientific Committee.

## SIOFA participation in the FAO-DSF expert revision of the implementation of the Deep Sea Guidelines

It is worth noting that the Science Officer participated in a DSF expert revision of the implementation of the deep sea guidelines. This revision was conducted during a meeting at the NEAFC Headquarters (London, UK) 29 November–2 December 2022. The meeting focused on how different RFMOs have implemented the FAO international guidelines for the management of deep-sea fisheries in the high seas and involved experts involved in different RFMOs and Nations, as well as FAO experts. The main output of this meeting was a draft report, that is going to inform the process at FAO.

### FAO-DSF project – Inception meeting

The project is global in scope and will collaborate with and support regional activities that lead to the project’s objective: 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.

The project inception meeting was held in January 2023 at the FAO premises in Rome, Italy. During the inception meeting, the inception meeting discussed the draft Project Steering Committee Terms of Reference, which have been recently adopted with minor modifications.

Furthermore, the workplan and the budget of the project were discussed and ultimately approved. These are summarised in the table included as Annex A of this paper.

In March 2023, the Secretariat circulated to the SIOFA SC HoDs a FAO communication regarding Output 2.2.2 of the DSF Project, “Support provided to RFMOs for improving catch recording (retained and discarded) and scientific advice on data-limited stocks”, which will be undertaken in collaboration with the International Council for the Exploration of the Sea (ICES). This output aims to review and support fit-for-purpose data collection and then review and develop stock assessment methodologies. The key species in this output are alfonsinos and armourheads, with a particular focus on alfonsino for the Indian Ocean and SIOFA.

In brief, this communication invited an expression of interest and availability to partake in this activity, to share information with the DSF Project and ICES (subject to confidentiality rules) and provide names of relevant stock experts for follow-up. SIOFA has confirmed its interest and nominated an expert to FAO.

### Acknowledgements

The SIOFA Secretariat wishes to kindly acknowledge the useful and constructive cooperation with the FAO—DSF project team, in particular Eszter Hidas (manager) and Anthony Thompson (science consultant). The participation of the SIOFA Secretariat to DSF meetings has been supported by FAO.

## Annex A - Deep-Sea Fisheries under the Ecosystem Approach Project 2023 Annual Workplan and Budget

### OUTCOME 1.1 – Wider adoption, enforcement and compliance of international obligations relating to sustainable fisheries (stocks and impacts)

OUTPUT	END PROJECT TARGETS <sup>3</sup>	5 YEAR PLAN <sup>4</sup>	YEAR 1 (2023) ACTIVITIES	MAIN PARTNERS
<p><b>OUTPUT 1.1.1 -</b> Gaps in regional obligations to (i) manage fish stocks and (ii) reduce fisheries impacts on biodiversity identified (updated) and corrective measures proposed</p> <p>* Including instruments dealing with gender and decent work (moved from Output 2.2.3)</p>	<p>(i) one report published on the gaps in uptake of international obligations by RFMOs relevant to the management of data-limited fish stocks and bycatch species (including but not limited to deepwater sharks and VMEs), as well as gender issues and decent work conditions, in the ABNJ, (ii) workshop on the gaps in uptake of international obligations for the management of DSF in the ABNJ being discussed, and recommendations taken up, by RFMOs<sup>5</sup></p>	<p>2023: Participatory desktop study 2024: Virtual workshop. 2025-2027: Follow-up work with RFMOs</p> <p>Results will feed into Output 1.1.2</p>	<p>Develop data collection framework/approach for study, conduct data collection, analyse/assess data, review preliminary results (through virtual workshop), conduct additional data collection, as needed, write up draft report</p>	<p>All partner RFMOs</p>
<p><b>OUTPUT 1.1.2 –</b> Measures to address national legal and regulatory gaps in international legally binding and voluntary instruments</p>	<p>(i) Self-assessment and e-learning package developed and submitted to RFMOs for distribution to their contacting parties; (ii) 20 government officials (12 men, 8</p>	<p>2020-2022: <i>Publication of Stepwise Guide<sup>6</sup> and work on draft e-learning package</i></p> <p>2023: work on Output 1.1.1;</p>	<p>2023: Define/refine scope and methodology of activity which may include a brief study to profile DSF activities globally (countries/fleet characteristics/applicable regulations); consult partners on proposed</p>	<p>Selected countries (TBD)</p>

<sup>3</sup> see Annex A2 of project document for more details in workshop document [CO\\_DSIF\\_Background\\_01 DSF Project Document](#)

<sup>4</sup> see Annex H of project document for more details in workshop document [CO\\_DSIF\\_Background\\_01 DSF Project Document](#)

<sup>5</sup> wording changed from original – see workshop document [CO\\_DSIF\\_Incep\\_04\\_Proposed Changes to Logframe](#)

<sup>6</sup> <https://www.fao.org/3/ca5628en/ca5628en.pdf>

OUTPUT	END PROJECT TARGETS <sup>3</sup>	5 YEAR PLAN <sup>4</sup>	YEAR 1 (2023) ACTIVITIES	MAIN PARTNERS
including FAO voluntary guidelines related to fisheries management  * Including instruments dealing with gender and decent work (moved from Output 2.2.3)	women) from contracting parties have completed self-assessment and e-learning package; (iii) Report on gender gaps in relevant national legislations identified through the self-assessment	definition of scope of work 2024: Develop first draft self-assessment questionnaire, Present draft questionnaire to partners (via webinar), Review questionnaire based on comments received 2025-2027: Support, training and other follow-up activities	approach; begin activities accordingly	
<b>OUTPUT 1.1.3 –</b> Gaps in existing capacity to strengthen compliance and enforcement identified and training provided  * Including instruments dealing with gender and decent work (moved from Output 2.2.3)	(i) Identification of training required and training material developed; (ii) at least 50 people (30 men/20 women) trained in 3 regions	2023: Work on Outputs 1.1.1 and 1.1.2 2024: Select countries and identify training needs based on scoping work from Outputs 1.1.1 and 1.1.2 2025-2027: Ongoing training/capacity development activities	No activities	Selected countries (TBD)

**OUTCOME 2.1 – Effective decision-making strengthened to increase sustainability and reduce impacts**

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATED YEAR 1 BUDGET	MAIN PARTNERS
<b>OUTPUT 2.1.1 -</b> Frameworks to improve science-management interface and exchange strengthened	(i) Two workshops held and draft precautionary approach (PA) and ecosystem approach to fisheries (EAF) frameworks developed that identifies	<b>Activity 1:</b> Strengthen communication frameworks between management and science committees:  2023: Desktop study	Consultant to conduct desktop study, including interviews with partners where necessary; prepare for virtual workshop with partners to gather input	USD 160,150	USD 23,500  15% of total	RFMOs ICES Industry  (Possible collaboration with Tuna project)

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATED YEAR 1 BUDGET	MAIN PARTNERS
	<p>the scope and responsibilities for implementation by RFMOs, (ii) Two RFMOs using an improved and standardized framework for PA and EAF as the basis for their application of PA and EAF</p>	<p>2024: Feedback from partners 2025-2026: Follow-up by partners and possible implementation of changes in communications methods</p> <p><b>Activity 2:</b> Support implementation of PA and EAF by dsRFMOs:</p> <p><i>2014-2019: EAF Report by Rick Fletcher from FAO DS Project<sup>7</sup></i></p> <p>2023: Desktop study 2024: Feedback from partners 2025-2027: Follow-up activities by partners and possible changes in communications methods</p>	<p>into draft report. Consultant to write draft report and share with partners.</p> <p>Desktop study (together with Activity 1)</p>			<p>RFMO partners ICES NOAA (Industry)</p> <p>(Possible collaboration with Tuna project)</p>
<p><b>OUTPUT 2.1.2 –</b> Frameworks to improve industry contributions to sustainable DSF</p>	<p>(i) Participatory survey of industry contributions to RFMOs (including mandatory data reporting via CPs) completed</p>	<p>2023: Desktop study 2024-2027: Follow-up, plans for increased cooperation and support, annual virtual workshops</p>	<p>Desktop review/interviews with RFMO Secretariats Virtual workshop. Report on current practices and future directions.</p>	<p>USD 123,600</p>	<p>USD 29,774  24% of total</p>	<p>Industry RFMOs (Management and Science) ICES</p> <p>(Possible collaboration with Tuna project)</p>

<sup>7</sup> <https://doi.org/10.4060/cb1509en>

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATED YEAR 1 BUDGET	MAIN PARTNERS
	and their use documented; (ii) Two RFMOs having developed routines and cooperative partnerships for formal industry contributions (including RFMOs seeking input and views from industry) to the RFMO management, compliance and science process.					
<b>OUTPUT 2.1.3 –</b> Platform for sharing new and innovative technologies for improved monitoring, reporting and information sharing developed	(i) Web-based platform for sharing technologies operational and supported by RFMOs, industry, developers, environmental NGOs and other stakeholders; (ii) 15 new tools on platform, with 3 set up for trialing	<i>2020: Report of deepwater shark catch recording / New technologies webinar<sup>8</sup></i>  2023: Set up web platform; Promote use with partners 2024-2027: Wide-scale promotion among stakeholders; Selection of tools for trialing under Output 2.2.2	Develop DGroups interface for knowledge sharing. Concept note for populating DGroups site. Follow-up with interested developers, users, scientists, and managers. Applications for use by observers.	USD 113,049	USD 30,000  27% of total	DSF Project to support DGroups site and stimulate interest.  Widest involvement possible, including project partners but extending to all interested practitioners

**OUTCOME 2.2 - Advice supporting science-based fisheries management improved**

<sup>8</sup> <https://www.fao.org/3/cb7967en/cb7967en.pdf>; [https://www.youtube.com/playlist?list=PLzp5NgJ2-dK5Ke9H5L5-BMYjvZN\\_opyvj](https://www.youtube.com/playlist?list=PLzp5NgJ2-dK5Ke9H5L5-BMYjvZN_opyvj)

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATED YEAR 1 BUDGET	MAIN PARTNERS
<b>OUTPUT 2.2.1</b> – Ecosystem and stock productivity models developed to support scientific advice (including demersal and small pelagic species and climate change effects)	(i) Symposium held with RFMOs to explore the use of ecosystem and productivity models in the management of DSF stocks. RFMOs supporting the collection of information useful in developing these models. (ii) Four RFMOs discussion ecosystem and stock productivity models for producing advice for stock assessment in scientific committee.	2021-2022: <i>Discussions with NAFO as co-organizer</i> 2023: Preparation for symposium 2024: Hold symposium 2025: Publication of proceedings 2026-2027: Follow-up	Consider additional organizing partner. Select steering committee. Participants start preparatory work for presentations. Select venue and distribute programme.	USD 271.050	40,500 15% of total	Co-organisers: NAFO, (ICES?)  All partners
<b>OUTPUT 2.2.2</b> – Support provided to RFMOs for improving catch recording (retained and discarded) and scientific advice on data-limited stocks	(i) Four RFMOs supported to improve fit-for-purpose data collection on data-limited stocks, with a focus on alfonso and armourhead  * and orange roughly?	<b>Activity 1:</b> Review and support fit-for-purpose data collection for data-limited fish stocks and provide training and monitoring of observers  2021-2022: <i>Discussions with ICES.</i>  2023: Preparation with ICES and partners	Discussions with ICES and RFMOs to ensure data sharing and collaborative assessment. Agree on ToRs, and develop contract between FAO and ICES.	USD 774,050	USD 73,000 9% of total	ICES  NAFO, NEAFC, NPFC, SEAFO, SPRFMO, SIOFA

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATED YEAR 1 BUDGET	MAIN PARTNERS
		<p>2024-2025: ICES – data needs and assessments with partners                      2025: Support to observers                      2026-2027: Follow-up</p> <p><b>Activity 2:</b>                      Develop and apply assessment methodologies for data-limited stocks and hold workshop                      2023: Selection of data-limited DSF stocks (link to Activity 1)                      2024-2025: Develop stock assessment methodology for data-limited stocks and hold workshops to share methodology                      2026-2027: Follow-up activities</p> <p><b>Activity 3:</b>                      Carry out surveys to support assessments (acoustic survey in Indian Ocean)</p> <p>2023 – Preparation and assess possibility                      2024-2027: Conduct cruise</p>	<p>As above</p> <p>Discussions with FAO/IMR Nansen programme</p>			<p>As above</p> <p>FAO/Nansen program                      SIOFA                      Industry</p>

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATED YEAR 1 BUDGET	MAIN PARTNERS
<p><b>OUTPUT 2.2.3</b> - Selected issues related to the economic dimensions of DSF assessed (including <del>gender and decent work</del>) including losses due to stock B&lt;Bmsy</p> <p>* Wording changed; gender and decent work components moved to Outcome 1</p>	<p>(i) Value chain analysis identified and method developed, covering all actors supporting the value chain.</p> <p>(ii) One value chain analyzed and results included in an economic analysis of the fishery<sup>4</sup></p>	<p>2023: Limited planning activities</p> <p>2024-2025: Data-collection and modelling work</p> <p>2025-2027: Follow-up</p>	No activities	<p>Originally: USD 367,957</p> <p>Updated upon revision: USD 112,000</p>	N/A	<p>Two selected RFMO regions</p> <p>Industry</p>

**OUTCOME 2.3 - DSF impacts on biodiversity quantified, assessed and managed**

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATE D YEAR 1 BUDGET	MAIN PARTNER S
<p><b>OUTPUT 2.3.1</b> - Impacts of DSF on deepwater sharks assessed and mitigation proposed</p>	<p>(i) Four RFMOs have been provided with methodologies and tools for classification of deepwater sharks;</p> <p>(ii) Four RFMOs have received support to undertake shark ecological risk assessments with improved methodologies or through analysis of deepwater shark catch by</p>	<p>2021: <i>Background baseline document on RFMOs' activities on deepwater sharks</i></p> <p>2023: Desktop study</p> <p>2024: Impact analysis on dw sharks, observer training?</p> <p>2025: Assess effectiveness of mitigation measures</p> <p>2026-2027: Hold a</p>	<p><i>There is some commercial activity for dw sharks. Very little data collected on discarded sharks.</i></p> <p>Study on current methods and protocols to record dw sharks by observers. Do SWOT. Virtual workshop. (link with new technologies)</p>	USD 377,550	<p>USD 33,000</p> <p>9% of total</p>	<p>FAO DSF project lead</p> <p>ICES expressed special interest on sharks. All RFMOs working on dw sharks</p> <p>All partners</p>

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATE D YEAR 1 BUDGET	MAIN PARTNER S
	commercial vessels	symposium, publication, follow-up activities				
<b>OUTPUT 2.3.2</b> – Identification of VMEs and understanding of gear-specific SAIs from bottom fisheries improved	(i) Guide on technologies to identify VMEs by research and commercial fishing vessels published and disseminated; (ii) Review of implementation of FAO DSF Guidelines peer-reviewed and published; (iii) Report on identifying methods to monitor VMEs and assess the extent of impacts from a variety of threats drafted; (iv) Four RFMOs contributed spatial fishing data to the project’s workshop and publication on mapping of DSF by gear type	<b>Activity 1:</b> Identify VMEs: 2022: <i>Baseline consultancy undertaken</i> 2023: Develop publication with partners 2024: Workshop on ID methods review 2025: R/V Nansen survey (IO)? 2026-2027: Follow up <b>Activity 2:</b> Review implementation of FAO DSF Guidelines 2022: First draft completed. Workshop held. 2023: Finish and publish review <b>Activity 3:</b> Monitor VME status and impacts  2024: Consultations with partners 2025: Identification of methodologies (publication, workshop, etc) 2026-2027: Follow-up activities,	Consultant to draft publication on methods used to identify known or likely VMEs  Finish draft for publication. Present final version to RFMOs/Industry for comments.  No activities  Discussions starting with RFMOs about mapping fisheries and stock distributions	USD 497,750	USD 60,550  12% of total	All partners  RFMOs  Focus regions (TBD)  RFMOs

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATED YEAR 1 BUDGET	MAIN PARTNERS
		<p>publication of report</p> <p><b>Activity 4:</b> Map DSF by gear type</p> <p><i>2020: World Wide Review of Bottom Fisheries published<sup>9</sup></i></p> <p>2023: Start planning 2024: Workshop(s) and consultations to map DSF by stock and gear 2025: Follow-up</p>				

**OUTCOME 3.1 – Improved integration of cross-sector activities to maintain biodiversity and resource sustainability**

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATED YEAR 1 BUDGET	MAIN PARTNERS
<b>OUTPUT 3.1.1 –</b> Interactions with sustainable DSF from other sectors operating in the deep seas identified and information made available	(i) Workshop with RFMOs and partners undertaken to identify possible current and future opportunities and threats and to discuss methods to identify if the impacts of such threats are significant; (ii) Three current and future threats from other “sectors”	2023: Planning work with RFMO scientists and other key stakeholders 2024: Scoping study and workshop to identify threats to fisheries from other sectors and assess potential significant adverse impacts (SAIs) 2025-2027: Consultations	Establish an advisory committee to guide the work of this output.  This is a scientific output.	USD 212,050	USD 27,000  13% of total	NAFO, NEAFC, SIOFA, NPFC (regions where human activities planned).  Other partners welcome if contributing.

<sup>9</sup> <https://www.fao.org/3/ca7692en/ca7692en.pdf>

OUTPUT	END PROJECT TARGETS <sup>1</sup>	5 YEAR PLAN <sup>2</sup>	YEAR 1 (2023) ACTIVITIES	TOTAL BUDGET <sup>3</sup>	ESTIMATED YEAR 1 BUDGET	MAIN PARTNERS
	(including changes in fishing technology and biodiversity) to DSF identified and information collected to allow for impact analyses	with experts, final workshop, publication of report				
<b>OUTPUT 3.1.2</b> - Frameworks to better mitigate and manage cross-sector interactions with DSF developed	(i) Workshop with RFMOs to discuss aspects (opportunities, threats, risks, etc..) requiring cooperation with other sectors held and possible cooperating mechanisms discussed; (ii) Template for cooperating mechanism developed and presented to RFMOs	2014-2019: <i>World Conservation Monitoring Centre contributions (mainly EEZs CPPS/SWIOFC)</i>  2023: High level planning and prep work 2024: Develop draft report on existing mechanisms of cooperation; workshop to discuss report 2025-2027: Yearly virtual workshops	Establish advisory committee;  This is a frameworks /management /mitigation output.			FAO ISA IMO UNEP UNDP, etc