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**ABNJ Deep- Sea Fisheries Project update for the
North Pacific Fisheries Commission
5th Scientific Committee Meeting**

24-27 November 2020

ABNJ Deep- Sea Fisheries Project
under the Ecosystem Approach



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Summary

The achievements from the first phase (2014-2019) and the development of the second phase (2022-2027) of the FAO ABNJ Deep-Sea Fisheries under the Ecosystem Approach (DSF) projects are described. NPFC was a key partner during the first phase and made valuable contributions to help meet the project's objectives.

The DSF Project in its second phase will support the implementation of an ecosystem approach to fisheries, with a focus on data-poor stocks, significant adverse impacts on VMEs, and deepwater sharks. It is hoped that NPFC's expertise in these matters will make a strong contribution to the DSF Project. Further, expertise from other regions will be brought to NPFC, allowing for the global development in these important areas of concern.

The DSF Project also wishes to contribute to an understanding of the application of international instruments by RFMOs and fishing nations, including the implications of the BBNJ negotiations, to position the fisheries sector as key players in ocean governance.

1. Introduction

This report provides an update on the recently concluded ABNJ Deep-Sea Project (2014-2019) and preparations for the DSF Project (2022-2027). Key project activities from the ABNJ Deep-Sea Project are included in the Annex.

2. The ABNJ Deep-Sea Project (2014-2019)

The Sustainable Fisheries Management and Biodiversity Conservation of Deep-Sea Living Resources in Areas beyond National Jurisdiction Project (ABNJ Deep Sea Project for short) is a five-year project supported by the Global Environment Facility (GEF), and implemented jointly by the Food and Agriculture Organization of the United Nations (FAO), and the United Nations Environment Programme (UNEP). The UNEP component was executed through the UNEP-World Conservation and Monitoring Centre (UNEP-WCMC).

The Project was designed to enhance sustainability in the use of deep-sea living resources and biodiversity conservation in the areas beyond national jurisdiction (ABNJ) through the systematic application of an ecosystem approach. It brought together over 20 partners who worked on deep-sea fisheries and conservation issues in the ABNJ globally. The Project aimed to:

1. strengthen policy and legal frameworks for sustainable fisheries and biodiversity conservation in the ABNJ deep seas;
2. reduce adverse impacts on VMEs and enhance conservation and management of components of EBSAs;
3. improve planning and adaptive management for deep-sea fisheries in the ABNJ; and
4. develop and test methods for area-based planning.

Project components 1, 2, and 3 were led by FAO, and Component 4 was led by UNEP-WCMC.

The ABNJ Deep-Sea Project was a five-year project. The total budget for the Project was USD 87 million, of which USD 7 million was funded by the Global Environment Facility (GEF). The remaining USD 79 million represented the co-financing from the project's 20 main stakeholders. More information is available from <http://www.fao.org/in-action/commonoceans/en/>.

Within FAO, the ABNJ Deep-Sea Project was an integral part of the FAO Deep-sea Fisheries Programme and many of the activities contributed to or benefited from co-financing with other projects under the programme. Some of these projects are now phased out, and follow-up activities were managed through the ABNJ Deep-Sea Project and the upcoming Deep-Sea Fisheries Project.

How NPFC was involved

NPFC was an important partner of the ABNJ Deep-Sea Project. NPFC contributed to activities that promoted collaboration and sharing of experiences in deep-sea fisheries and associated biodiversity as well as specific activities on capacity building for developing countries. This contribution was coordinated by the NPFC Secretariat.

The final Project Steering Committee meeting

The fifth and final meeting of the Project Steering Committee (PSC) was held in January 2020. The PSC reviewed the project's progress, terminal evaluation and preparations for a second phase to the Project. The Project closed in December 2019.

3. The ABNJ Deep-Sea Fisheries (DSF) Project (2022-2027)

The second ABNJ Common Oceans programme follows on from the first Common Oceans Programme, with some similarities and some differences. It will operate through the Global Environment Facility (GEF) GEF-7 mechanism receiving funding from their International Waters priority area. The Concept Notes for the Common Oceans programme and five projects were approved by GEF Council in June 2020. The DSF Project has a USD 5 million budget. The projects are:

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

The programme and projects are currently being developed with an anticipated submission date to GEF of mid-2021 and a start date planned for early 2022.

The DSF Project has three technical components and a fourth on communication and project management. The components are:

1. Governance - strengthening and implementing regulatory frameworks
2. Strengthening effective management of DSF
3. Improving understanding and management of cross-sectoral impacts on DSF
4. Communication, knowledge management and project monitoring and evaluation

The fourth component on will be undertaken in collaboration with the GCP.

DSF Project Objective

The project objective is 'to ensure that deep-sea fisheries 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 DSF Project will achieve its objective by working with RFMOs and member States to increase their capacity to work together, and with other sectors, to share experiences and cooperatively develop new and efficient tools, that will allow for improved monitoring and management of the fish stocks and impacts on biodiversity. The DSF Project will support activities, beyond the RFMO's core role of fish stock management that will lead to better assessments of data-limited stocks (which amount to some 50 percent of the exploited deep-sea fish stocks), improvements in risk assessments on non-target species including deepwater sharks and VMEs, and on improvements to monitor biodiversity and ecosystem health. The DSF Project will allow up-scaling of smaller studies and initiatives undertaken by project partners and uptake of the developed tools through direct support to GEF-eligible developing nations. The DSF Project, in conjunction with FAO's role of supporting fisheries management in the high seas, will also allow for further implementation of the FAO's own binding and voluntary instruments to be trialled and implemented by RFMOs and industry.

The DSF Project will facilitate increased cooperation and exchange among the RFMOs. This will build on successful initiatives started under the ABNJ Deep-Sea Project, and greatly assist the newer RFMOs and develop opportunities for those coastal States that are members of RFMOs but do not have DSF.

A more detailed overview of the DSF Project is available in the Project's Concept Note¹.

Inception Workshop

The Inception Workshop for the DSF Project was held virtually in two sessions. The NPFC Secretariat (Peter Flewwelling) participated in the Workshop's session on 24 August 2020. The purpose of the Workshop was to formally introduce the DSF Project to potential partners, to describe the development of the project to date, and to highlight the participatory nature of the project design process.

The Workshop reviewed the DSF Project's outputs and the activities under each outcome (see Theory of Change below). This provided an opportunity to receive feedback on the planned activities and to assist in the preparation of the in-kind funding amounts to be provided by the partners. Discussions will continue with partners as the activities are further developed.

The Workshop also went over requirements associated with GEF-funded projects, and in particular the separation of the project's Implementing Agency (FAO) and Executing Agency functions.

The Workshop Report is being finalized.

NPFC Role

The goal of the DSF Project's partnership strategy is to bring together skills, expertise and resources from a diversity of stakeholders to achieve the DSF Project's objective. NPFC, with its history of managing fishery resources in the North Pacific, is a key DSF Project partner. The DSF Project will over the coming months identify how NPFC's ongoing and planned activities could support the Project's objectives. The DSF Project will consult with NPFC to establish if NPFC is willing to commit these activities as in-kind contributions to the DSF Project.

Priority activities identified for NPFC

During various discussions and after consulting recent NPFC meeting reports, the following activities have been identified for their relevance to NPFC and the DSF Project. These could be further developed using a participatory approach involving project partners over the next six months for inclusion into the DSF Project Document.

Output 1.1.1 – Regional obligations

Fishing opportunities for member and non-member States.

Function of MoUs with other international organisations having related objectives (e.g. NPFC has MoUs with WCPFC and IATTC).

Output 1.1.2 – Addressing national legal and regulatory gaps

Support for implementation of FAO binding and voluntary instruments including the Port State Measures agreement.

Output 1.1.3 – Strengthen compliance and enforcement

Data collection and sharing of catch and bycatch species, including cooperation between Technical and Compliance Committee and Scientific Committee including support to observer programmes.

Support for development of regional VMS and assessment of support provided by the AIS network for monitoring fisheries including data security, data sharing and trans-shipment activities.

Output 2.1.1 – Science-management interface

Opportunities for cooperation among the Technical and Compliance Committee and the Scientific Committee in support of information and advice provided to the Commission. More generally, being partner to the process of further developing science-management frameworks for clearer guidance to SC and improved advice to the Commission among deep-sea RFMOs.

Output 2.1.3 – New and innovative technologies

Use of AIS for monitoring non-member fishing activities in the North Pacific, in cooperation with similar initiatives occurring in other regions.

¹ https://www.thegef.org/sites/default/files/project_documents/PFD_CP%252002%2520DSF%2520Revised_0.docx

Sharing of global advances in data security among deep-sea RFMOs.

New recording systems for on-board observers.

Output 2.2.2 – Data-limited stocks

Data collection and assessment of North Pacific armorhead and splendid alfonsino, including adaptive management plans, harvest control rules, and management strategy evaluations, as required.

Output 2.2.3 – Value chains

This output examines the human and economic aspects of deep-sea fisheries and explores the need to incorporate this into the ecosystem approach for fisheries undertaken by RFMOs. This is a global partnership activity that is seeking case studies for more detailed examination.

Output 2.2.4 – EAF options to maximise benefits

This output explores opportunities to maximise ecological and socioeconomic benefits from DSF and builds upon the results of many other outputs including specifically 2.2.2, 2.2.3, and 2.3.1 and 2.3.2. Global in scope requiring input from RFMO partners.

Output 2.3.1 – Deepwater sharks

NPFC was mentioned in the FAO EAF Report (2020², p. 63) as needing to improve on bycatch monitoring and undertake some form of risk assessment for non-benthic direct impacts including discards. This output builds on the presentation made by the Science Manager to the Scientific Committee (NPFC-2019-SC04-IP02).

Output 2.3.2 – SAI on VMEs

Support for the development of the fishing footprint, encounter protocols, impact assessments and delimiting existing VMEs, with support partly provide through the FAO VME DataBase. This could involve support for identification training programmes currently being considered in cooperation with PICES.

Output 3.1.1 – Impacts on DSF from other sectors and Output 3.1.2 – Frameworks for cross-sector impacts

These are global outputs of common interest to RFMOs on impacts to DSF from other non-fisheries sectors. This includes informing on how RFMOs could support and be affected by the BBNJ process.

Output 4.1.1 – Information sharing

This is also a global output to examine messaging on RFMO websites to reach wider audiences, including consumers and conservationists, to better inform on sustainable fisheries management and impacts on biodiversity.

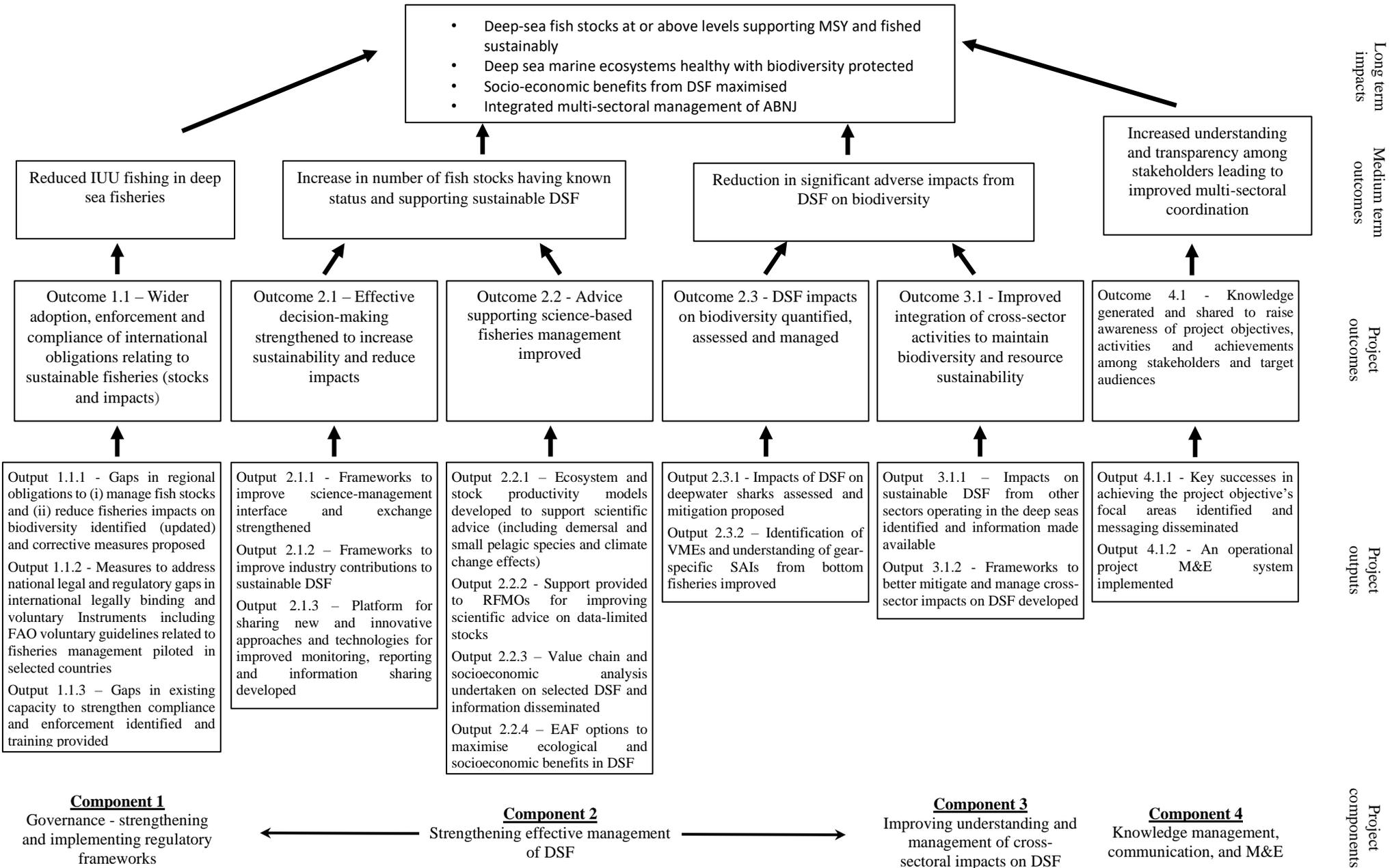
An updated Theory of Change is provided below.

NPFC support during project development

To maintain a participatory approach and to ensure expert guidance, the DSF Project will seek advice from experts working with NPFC, including members of the NPFC Committees and Secretariat. The Scientific Committee is welcome to nominate experts on the various outputs who can provide input and review activities under the various outputs. This will greatly assist the DSF project is further developing specific activities with partners.

² <http://www.fao.org/3/cb1509en/CB1509EN.pdf>

DSF Project - Theory of Change



Annex

ABNJ Deep Sea Project Key Outputs

International legal and policy instruments related to deep-sea fisheries and biodiversity conservation in ABNJ

A comprehensive review and analysis of international legal and policy instruments related to deep-sea fisheries and biodiversity conservation in areas beyond national jurisdiction explains the most important instruments that govern and affect fisheries and biodiversity in the ABNJ. It is available [here](#).

Worldwide Review of Bottom Fisheries in the High Seas in 2016

The *Worldwide Review of Bottom Fisheries in the High Seas in 2016* is an extended update of the FAO *Worldwide review of bottom fisheries in the high seas* that was published in 2009. It summarizes the status of high seas bottom fisheries worldwide using 2016 data. The review is centered on regional chapters covering the major Ocean areas beyond national jurisdiction (ABNJ or high seas). Summary chapters precede the regional descriptions, dealing with ecosystems and resources, bottom fisheries, and management. This review highlights the considerable changes that have occurred in the monitoring and management of the high seas deep-sea fisheries by RFMOs, including the regulation relating to total allowable catches and reducing impacts on both target and bycatch species. The Review can be accessed [here](#).

Report of the ABNJ Deep Sea Fisheries Rights-Based Management Workshop

A workshop on the application of rights-based management (RBM) to ABNJ deep-seas fisheries met to identify and evaluate the issues relating to existing and future possible implementation of rights-based management of high seas fisheries. The group reviewed the development of international law as it relates to the high seas fisheries. Particular emphasis was given to the Convention on the Law of the Sea and how it provides for access to high seas fisheries and the obligations this access involves and the implications for those wishing to enter fully prescribed fisheries. This assessment provided the starting point to the legal basis that allows Regional Fisheries Management Organizations (RFMOs) to manage harvesting entitlements to fish stocks or to effort, capacity, or habitat impact in their jurisdiction in a manner that ensures that the incentives for effective and efficient management from rights-based management (RBM) that are found in seas under national jurisdiction may also be obtained from high seas fisheries. The Workshop Report is available [here](#).

Review of the Application of the FAO Ecosystem Approach to Fisheries (EAF) Management within ABNJ

This publication documents the results of the review of the level of implementation of the FAO Ecosystem Approach to Fisheries (EAF) by the fisheries management bodies in each of the different ABNJ regions. The review was designed to help identify future activities by the ABNJ Deep Sea Project to address gaps and capacity development and make recommendations to strengthen EAF among deep-sea fisheries management bodies and/or their members. The review is available [here](#).

Report of the FAO/NPFC Workshop on the Protection of Vulnerable Marine Ecosystems in the North Pacific Fisheries Commission Area: Applying Global Experiences to Regional Assessments

The subject matter of this workshop was the protection of vulnerable marine ecosystems (VME) in the North Pacific Fisheries Commission (NPFC) Area, with the aim of applying global experiences to the regional assessments and to build capacity to protect VMEs and related management issues in the North Pacific Ocean region. The workshop focused on the mitigation of bottom fishing impacts on VMEs within the framework of the Food and Agriculture Organization of the United Nations (FAO) International Guidelines for the Management of Deep-Sea Fisheries in the High Seas. The report is available [here](#).

Economic Value of Ecosystem Services from the Deep Seas and the Areas beyond National Jurisdiction

This study estimates the total economic value (TEV) of services provided the deep sea. It includes the provision of deep-water fish, the harvest of precious corals, the use of substances of marine origin as pharmaceuticals, the extraction of deep and ultra-deep oil and the potential mining of mineral resources from the seafloor, carbon sequestration carried out by the deep seas, the importance of scientific research in the deep seas, and touristic activities with submersibles. The TEV assessed for the deep-sea ecosystem as a whole is estimated at USD 267 billion per year. Ninety two percent of the economic value originates from abiotic resources (oil and minerals), 5 percent from biotic resources (fish, corals and pharmaceuticals of marine origin), 2 percent from cultural services (scientific research and tourism/recreation), and 1 percent from carbon sequestration. The study can be accessed [here](#).

Deep Sea meeting

A Deep Sea meeting on 7-9 May 2019 highlighted project results. The meeting included sessions on governance and policy, deep sea science and monitoring, and deep sea management. Over 40 participants, including representatives from partner organizations and other stakeholders from multiple sectors within the ABNJ, attended the meeting. The participants were invited to give presentations on key topics and discuss emerging issues concerning ABNJ governance and deep-sea research, monitoring and management. While significant progress has been made in the management of deep-sea fisheries and in the protection of vulnerable marine ecosystems, the ABNJ still faces threats from climate change, ocean acidification, biodiversity loss, and pollution. The meeting report can be accessed [here](#).

Global review of Orange roughy their fisheries, biology, and management

The Project supported a workshop to collate data and information on orange roughy. The Workshop results are available in the report *Global Review of Orange Roughy (Hoplostethus atlanticus), their fisheries, biology, and management*. The orange roughy review can be accessed [here](#).

Side events at the Third BBNJ Inter-Governmental Conference in New York

FAO organized two side events at the Third BBNJ Inter-Governmental Conference on 19-30 August 2019 in New York. The first side event focused on the role of RFMOs in the 21st century. The second side event's theme was Science to Policy in Practice -- Multi-Institutional Collaboration in ABNJ.

Updating the FAO VME Portal and DataBase

The VME Portal provides general information on VMEs, and the VME DataBase contains information on VME-related measures in ABNJ for each regional fisheries body, including NPFC. The Project supports the ongoing maintenance and updating of the systems (www.fao.org/in-action/vulnerable-marine-ecosystems/en/).

Regional VME processes and experiences with their application

In late 2016, the report *Vulnerable Marine Ecosystems – processes and practices in the high seas* was published (<http://www.fao.org/3/a-i5952e.pdf>) and summarizes the regional processes and practices in place for VMEs and their management.

Deep-sea fisheries and VME regional workshops

The ABNJ Deep Sea Project collaborated with SIOFA to organize a VME Workshop on 19-20 March 2019. The workshop was attended by SIOFA and international experts and included sessions on VME mapping, VME indicator taxa, encounter protocols, protected area protocols and selection of protected areas.

The ABNJ Deep Sea Project has also collaborated on the organization of two vulnerable marine ecosystem (VME) regional workshops in 2016. The first was for the Mediterranean region, held in collaboration with the General Fisheries Commission for the Mediterranean (GFCM) in July, and the second was held for the eastern central Atlantic region, in collaboration with the Fishery Committee for the Eastern Central Atlantic (CECAF) in November. Workshop reports can be found here:

Indian Ocean 2012 -	http://www.fao.org/3/a-i3311e.pdf
Southeast Atlantic 2013 -	http://www.fao.org/3/a-i4923e.pdf
North Pacific 2014 –	http://www.fao.org/3/a-i5319e.pdf
Western Central Atlantic 2014 -	http://www.fao.org/3/a-i4329e.pdf
Mediterranean Sea 2016 -	http://www.fao.org/3/a-i6685e.pdf
Eastern Central Atlantic 2016 –	http://www.fao.org/3/a-i7609b.pdf
North Pacific 2018 –	http://www.fao.org/3/ca6389en/ca6389en.pdf

Climate change and deep-sea ecosystems

The ABNJ Deep Sea Project partnered with the Deep-Ocean Stewardship Initiative and its working group of climate change experts to better understanding the consequences of climate change for deep sea ecosystems and deep-sea fisheries. The working group met on 25-26 August in Woods Hole, USA to discuss questions including: What are the major climate change features affecting the deep ocean and its associated biodiversity? What impacts might these features have on the functioning of deep-sea ecosystems? How might climate impacts affect deep-sea fish and fisheries? Which regions and fisheries might be most vulnerable? Which other species are vulnerable? What essential ocean variables are important to monitor in order to assess the risks to deep sea species and communities due to climate change?

The project supported scientists and experts from the regional bodies managing deep-sea fisheries to participate in the workshop and contribute their expert knowledge. The project also supported the participation of a deep-sea coral and sponge expert from the SponGES project to cover the non-fish species that might also be vulnerable to climate change. A technical paper from the meeting can be viewed [here](#).

Catch documentation schemes for deep-sea fisheries

A report on catch documentation schemes (CDS) for deep-sea fisheries has been published as FAO Technical Report 629 (2018). The report considers options available for catch documentation schemes applied to deep-sea fisheries, taking into account the FAO Voluntary Guidelines on Catch Documentation Schemes. The report explores and makes recommendations on the organisational and institutional modalities that could be applied to deep sea-fisheries CDS and can be viewed [here](#).

Monitoring, Control, and Surveillance for deep-sea fisheries

A workshop on ABNJ deep sea MCS met on 10-12 December 2018. The Workshop was attended by selected SIOFA and SEAFO members. SEAFO and SIOFA members were invited to review their MCS frameworks in light of their regional obligations, to identify gaps in their MCS frameworks and develop plans of actions to address the gaps. The workshop was informed by a review of regional and international MCS frameworks and requirements for deep-sea RFMO/As that has been undertaken by the ABNJ Deep Sea Project. The Workshop report can be accessed [here](#) and the final review [here](#).

DEEP-FLIP training on international instruments relevant to deep-sea fisheries and associated biodiversity

The project has partnered with legal consultants to develop a step-wise guide for the integration of international legal instruments related to deep-sea fisheries and biodiversity in the ABNJ into national legislation of selected pilot countries. The first DEEP-FLIP (Fisheries Law in Practice) training workshop took place on 22-24 October 2018, with participants selected countries from the SIOFA and SEAFO regions. Training was conducted on the use and application of the step-wise guide that can be viewed [here](#). A follow-up assessment of the implementation of international legal instruments in national legislation is being undertaken with selected countries from SIOFA and SEAFO.

Area-based planning

Reviews of institutional arrangements and legal instruments in the Southeast Pacific and Western Indian Ocean have been completed. Global marine datasets of biodiversity importance to the [Southeast Pacific](#)

and [Western Indian Ocean](#) have been identified and published. Area based planning workshops were held in Southeast Pacific (with CPPS countries) and Western Indian Ocean (with Nairobi convention countries) resulting in capacity development assessments.

Deep-sea sponges in the North Atlantic

FAO is collaborating with the Horizon 2020 SponGES project, which aims to develop an integrated ecosystem-based approach to preserve and sustainably use deep-sea sponge ecosystems of the North Atlantic. The ABNJ Deep Sea Project is assisting the SponGES Project by identifying the types of information needed to improve understanding of the economic elements of the sponge resources in the North Atlantic region, and devising a draft methodology to estimate the value of sponges (this will be reviewed with experts from the SponGES Project to understand the practical limitations of the methodology). Furthermore, the ABNJ Deep Sea Project supports exchange between SponGES and fisheries experts. Information materials from this project are available and science-policy dialogues, initiated by FAO, are ongoing.

The *Sustainable Fisheries Management and Biodiversity Conservation of Deep Sea Living Resources in Areas Beyond National Jurisdiction* Project (ABNJ Deep Seas Project for short) is a five-year project supported by the Global Environment Facility, and implemented by the Food and Agriculture Organization of the United Nations, and the United Nations Environment Programme. The UNEP project component is executed through the UNEP World Conservation and Monitoring Centre.

The Project is designed to enhance sustainability in the use of deep-sea living resources and biodiversity conservation in the ABNJ through the systematic application of an ecosystem approach. It brings together over 20 partners who work on deep-sea fisheries and conservation issues in the ABNJ globally. The partnership includes regional organizations responsible for the management of deep-sea fisheries, Regional Seas Programmes, the fishing industry and international organizations. The Project aims to:

- strengthen policy and legal frameworks for sustainable fisheries and biodiversity conservation in the ABNJ deep seas;
- reduce adverse impacts on VMEs and enhanced conservation and management of components of EBSAs;
- improve planning and adaptive management for deep sea fisheries in ABNJ; and
- develop and test methods for area-based planning.

The ABNJ Deep Seas Project started in September 2015 and is one of four projects under the GEF Common Oceans Programme. More information is available from <http://www.fao.org/in-action/commonoceans/en/>

