



PROJECT IDENTIFICATION FORM (PIF)¹

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Sustainable fisheries management and biodiversity conservation of deep-sea living marine resources and ecosystems in the Areas Beyond National Jurisdiction (ABNJ)		
Country(ies):	Global	GEF Project ID: ²	4660
GEF Agency(ies):	FAO UNEP (select)	GEF Agency Project ID:	614525
Other Executing Partner(s):	IUCN, Comisión Permanente del Pacifico Sur (CPPS), East African Seas Regional Coordinating Unit, deep-sea regional fisheries management organizations, deep-sea fishing industry	Submission Date:	2012-04-03
GEF Focal Area (s):	Multi-focal Areas	Project Duration (Months)	60
Name of parent program (if applicable): ➤ For SFM/REDD+ <input type="checkbox"/>	Global sustainable fisheries management and biodiversity conservation in the Areas Beyond National Jurisdiction (ABNJ)	Agency Fee (\$):	658,403

A. FOCAL AREA STRATEGY FRAMEWORK³:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
IW-4 (select)	Outcome 4.1: ABNJ (including deep-sea fisheries, oceans areas, and seamounts) under sustainable management and protection	Output 4.1: Demonstrations for management measures in ABNJ, (including deep-sea fisheries, ocean areas) with institutions	GEFTF	1,167,267	6,972,857
IW-4 (select)	Outcome 4.2: Plans and institutional frameworks for pilot cases of ABNJ have catalytic effect on global discussions (incl. MPAs from BD area)	Output 4.1: Demonstrations for management measures in ABNJ, (including deep-sea fisheries, ocean areas) with institutions;	GEFTF	1,167,266	6,972,857
(select) BD-1	Outcome 1.1: Improved management effectiveness of existing and new protected areas.	Output 1.1. New protected areas (at least one) and coverage (around 4,300 billion hectares) of unprotected ecosystems.	GEFTF	2,316,351	6,972,857
(select) BD-2	Outcome 2.2: Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks	Output 2.2. Policies and regulatory frameworks (at least one) for production sectors.	GEFTF	2,316,351	6,972,858
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)			(select)		
(select) (select)	Others		(select)		
Sub-Total				6,967,235	27,891,429
Project Management Cost ⁴			GEFTF	348,362	1,374,571

¹ It is very important to consult the PIF preparation guidelines when completing this template.

² Project ID number will be assigned by GEFSEC.

³ Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.

Total Project Cost		7,315,597	29,266,000
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B. PROJECT FRAMEWORK

Project Objective: To achieve efficiency and sustainability in the use of deep-sea living resources and biodiversity conservation in ABNJ, through the systematic application of an ecosystem approach for: i) improving sustainable management practices for deep-sea fisheries, taking into account the impacts on related ecosystems, ii) protecting vulnerable marine ecosystems (VMEs) and Ecologically or Biologically Significant Areas (EBSAs) and iii) practicing improved area-based planning for deep sea ecosystems.

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Policy and legal frameworks for sustainable fisheries and biodiversity conservation in the ABNJ deep seas	TA	<p>1.1 Improved policy and legal frameworks, incorporating obligations and good practices from legal and policy instruments for sustainable fisheries and biodiversity conservation are tested and disseminated to all competent authorities [regional fisheries management organizations or arrangements (RFMOs/As), Regional Seas Programmes (RSPs), countries, flag and port states as appropriate] and other relevant stakeholders</p> <p>1.2 Global and regional networks are strengthened and/or expanded</p>	<p>1.1.1 Implementation guides for all relevant international policy and legal instruments to deep-sea fisheries and biodiversity conservation made available to competent authorities, industry partners and other stakeholders.</p> <p>1.1.2 Impediments to the implementation of international policy and legal instruments identified and remedial measures are formulated.</p> <p>1.1.3 Options for Rights-Based Management (RBM) systems and market-based incentives (e.g. trade certification and ecolabelling) developed and tested in at least one selected pilot area</p> <p>1.1.4 Model policy and legal frameworks, enabling sustainable Deep Sea Fisheries (DSF) management and biodiversity conservation at the regional and national levels, developed and integrated into national legislation in countries in at least one region.</p> <p>1.2.1 Collaborative networks and partnerships, including all stakeholders involved in ABNJ-DSF and biodiversity conservation, strengthened or set-up, with</p>	GEFTF	1,150,000	5,050,000

⁴ GEF will finance management cost that is solely linked to GEF financing of the project. PMC should be charged proportionately to focal areas based on focal area project grant amount.

			links to global and regional communities of practice under the ABNJ Programme.			
2. Reducing adverse impact on Vulnerable Marine Ecosystems (VMEs) and Ecologically or Biologically Significant Areas (EBSAs)	TA	<p>2.1 Improved application of management tools for mitigation of threats to sustainable DSF and biodiversity is demonstrated</p> <p>2.2 The capabilities of stakeholders are developed, to use improved management tools for mitigation of threats to sustainable DSF and biodiversity.</p>	<p>2.1.1 Biological, ecological and economic analyses of DSF and biodiversity in the ABNJ carried out, in consultation with relevant stakeholders, to classify risks and threats and identify vulnerable marine ecosystems.</p> <p>2.1.2 Interactive web databases, for identification and use in mitigation of threats to sustainable DSF and biodiversity in ABNJ, particularly for VMEs and EBSAs, improved for use in regions in close collaboration with all stakeholders.</p> <p>2.1.3 Indicators in terms of species and critical habitats, for VME and EBSA identification and thresholds, when appropriate, developed in at least one pilot area</p> <p>2.1.4 Management measures and improved fishing practices to reduce impacts on VMEs and EBSAs piloted in at least one pilot area</p> <p>2.2.1 Customized support provided to at least ten developing countries to fully integrate best practices for sustainable DSF and biodiversity conservation in their management processes</p> <p>2.2.2 Technical and operational support on the application of VME and EBSA criteria provided (including training), for systematic use by countries</p>	GEFTF	1,300,000	6,803,269
3. Improved planning and adaptive management for	TA	3.1 Planning and management processes for achieving sustainable DSF and	3.1.1 Best practices, methods and tools for comprehensive management planning ,	GEFTF	1,952,235	8,191,000

ABNJ DSF		<p>biodiversity conservation are improved, tested, and disseminated to all competent authorities.</p> <p>3.1.2 Adaptive management processes demonstrated, including identification of management objectives and priorities, through participatory risk analysis in at least one selected pilot area</p> <p>3.1.3 Objective-based indicators and reference points (related to target species, catch/bycatch composition, biodiversity, etc) selected and a related monitoring programme for ABNJ-DSF tested in a selected pilot area</p> <p>3.1.4 Action plan for adoption of best MCS practices, adapted to the specific conditions of ABNJ-DSF, formulated and adopted in one of the selected pilot areas</p> <p>3.1.5 Options for improved management measures for sustainable fisheries and biodiversity conservation, including: i) encounters with vulnerable species/habitats; (ii) spatial management tools; and iii) fishing operations aimed at mitigating adverse impacts on sensitive habitats and ecosystems, developed and disseminated.</p>				
4. Development and testing of a methodology for area-based planning [UNEP]	TA	4.1 Efficient area-based planning tools and good practices based on ecosystem-based management practices are made available to competent authorities, including regional seas programmes (RSPs) and RFMOs for regional management plans and policies.	4.1.1. Adaptation and further development of available area-based planning tools addressing deep sea ecosystems in ABNJ and connected exclusive economic zones (EEZs). These tools include trade-off analysis, ecosystem service valuation and cost-benefit analysis.	GEFTF	2,415,000	7,600,000

			<p>4.1.2. Knowledge and experience sharing from the Northeast Atlantic and the Mediterranean concerning deep-sea marine ecosystems and area-based planning to support other competent authorities, including RSPs and RFMOs (linked also to other information sharing initiatives such as e.g. Outcome 1.2) and will be coordinated with the relevant outputs of the Global Capacity Project.</p>			
		<p>4.2 Area-based planning in ABNJ is incorporated into the regional marine planning processes in selected regions (preliminarily identified as Southeast Pacific and the Western Indian Ocean) through partnerships between competent authorities, including RSPs and RFMO.</p>	<p>4.2.1. Testing of area-based planning tools in the selected regions. The test application will be conducted with close linkage with the other components of this project.</p> <p>4.2.2 Science-based and policy relevant advice on area-based planning and management applied in regional deep-sea ecosystem planning processes in the selected test regions with engagement of relevant stakeholders and through the partnership between competent authorities, including RSPs and RFMOs. The planning process will also benefit from the information provided through Output 2.1.2 (VME and EBSA data bases).</p>			
5. Project monitoring and evaluation	TA	<p>5.1 Project implementation conducted with adaptive results- based management, supported by progress monitoring and evaluation, including transmission of lessons learned via the IW:Learn program (financed at 1 percent of the GEF IW Grant).</p>	<p>5.1.1 Website established which is compatible with IW-Learn program and contributes to ABNJ Programme portal.</p> <p>5.1.2 Project monitoring system operating and systematically providing information on progress in meeting project output and outcome targets</p> <p>5.1.3 Timely biannual project progress reports</p>	GEFTF	150,000	247,160

			available for adaptive results-based management			
			5.1.4 Midterm and final evaluation carried out and reports available			
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
Sub-Total					6,967,235	27,891,429
Project Management Cost ⁵				GEFTF	348,362	1,374,571
Total Project Costs					7,315,597	29,266,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
GEF Agency	FAO	In-kind	10,800,000
GEF Agency	Bilateral funding through FAO from Japan, Norway, France, ROK, etc.	Grant	1,700,000
GEF Agency	UNEP	In-kind	4,000,000
GEF Agency	UNEP-WCMC	In-kind	4,000,000
Foundation	IUCN	In-kind	3,316,000
Other Multilateral Agency (ies)	IOC and the EC	Unknown at this stage	200,000
Other Multilateral Agency (ies)	Deep-sea RFMOs	Unknown at this stage	1,300,000
Foundation	ZSL, BLI	Unknown at this stage	450,000
Foundation	FFEM	Unknown at this stage	1,500,000
Private Sector	Fishing industry	Unknown at this stage	2,000,000
Total Cofinancing			29,266,000

D. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b) ²	Total c=a+b
FAO	GEFTF	International Waters	Global	2,508,714	225,784	2,734,498
FAO	GEFTF	Biodiversity	Global	2,391,883	215,269	2,607,152
UNEP	GEFTF	Biodiversity	Global	2,415,000	217,350	2,632,350
(select)	(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
(select)	(select)(select)	(select)				0
Total Grant Resources				7,315,597	658,403	7,974,000

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

² Please indicate fees related to this project.

⁵ Same as footnote #3.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1 the GEF focal area/LDCF/SCCF strategies /NPIF Initiative:

This project falls under the GEF Program “Global sustainable fisheries management and biodiversity conservation in the Marine Areas Beyond National Jurisdiction (ABNJ)”. Three priority project regions have been identified to carry out specific activities based on regional needs; selected areas of the Indian Ocean, the southeast Atlantic and the South Pacific. The project is consistent with IW Objective 4: Promote effective management of the ABNJ, and it will contribute to IW Outcome 4.1 ABNJ (including deep-sea fisheries, ocean areas, and seamounts) under sustainable management and protection (including MPAs from BD area) through: (i) strengthening of management processes and making improved/efficient tools and practices available to stakeholders for implementation of ecosystem approaches to manage fisheries in deep-sea ecosystems; (ii) enhancing the capacity of competent authorities, local specialists and scientists, fishing industry and other relevant stakeholders to develop fisheries management strategies and apply identification criteria for Vulnerable Marine Ecosystems (VMEs) and Ecologically or Biologically Significant Areas (EBSAs); and (iii) demonstration of improved tools and practices for sustainable fisheries management and biodiversity conservation in selected pilot cases of ABNJ.

The project will also contribute to IW Outcome 4.2. Plans and institutional frameworks for pilot cases of ABNJ have catalytic effect on global discussions, through: (i) enhancing global decision-making and planning processes related to ABNJ management; and (ii) contributing to the development of plans and institutional frameworks in at least one pilot area. These pilot experiences are expected to have a catalytic effect on global discussions on ABNJ.

The project is also consistent with BD Objective 1: Improve Sustainability of Protected Area Systems, and BD Objective 2: Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes, Seascapes and Sectors. The project will contribute to BD Outcome 1.1.: Improved management effectiveness of existing and new protected areas, through provision of guidance on effective spatial management measures in ABNJ and pilot testing of the measures in selected areas of the Indian Ocean, Southeast Atlantic and South Pacific (covering around 4,300M hectares). Establishment of collaborative arrangements for protective management measures and sharing of knowledge and with respect to VMEs and EBSAs,

The project will also contribute to BD Outcome 2.2.: Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks, through the development of plans and institutional frameworks in at least one deep-sea fisheries (DSF) area as well as developing inter-sectoral area-based planning in at least one pilot area. Finally, the project also meets the objective of the Biodiversity focal area set-aside to address supra-national strategic priorities and is consistent with its criteria to support priorities identified by the conference of the parties (COP) of the Convention on Biological Diversity (CBD), as it will contribute to meeting the Aichi Biodiversity Targets adopted by COP10 in its decision X/2 on Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets.

A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

N/A

A.1.3 For projects funded from NPIF, relevant eligibility criteria and priorities of the Fund:

N/A

- A.2. national strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:

The Project will abide by and assist states in the fulfillment of their obligations related to past and current relevant UN General Assembly (UNGA) resolutions. In 2006, a UNGA Resolution (61/105) called on, "States to take action immediately, individually and through regional fisheries management organizations and arrangements (RFMO/As), and consistent with the precautionary approach and ecosystem approaches, to sustainably manage fish stocks and protect vulnerable marine ecosystem..." in deep-sea ABNJ. In 2009, 2010 and 2011, the UNGA reaffirmed the commitment to sustainable deep-sea bottom fishing practices through the passage of Resolutions 64/72, 65/38 and 66/68. The Project will also abide by the World Summit on Sustainable Development (WSSD) to "Maintain the productivity and biodiversity of important and vulnerable marine and coastal areas, including in areas within and beyond national jurisdiction (Art 32a)" and will be consistent with states' broader environmental policies.

It is directly linked with national commitments to the Code of Conduct for Responsible Fisheries (CCRF), the International Guidelines for the Management of Deep-sea Fisheries in the High Seas (DSF Guidelines). FAO oversaw the development and adoption of these guidelines in 2008 with over 65 countries participating. These Guidelines represent a major step towards sustainability of DSF and conservation of biodiversity in the high seas, and strengthen the applicable legal and institutional frameworks for management of DSF.

It also directly addresses principles and decisions of the CBD, regarding coastal and marine biodiversity, including decision IX/20 (criteria for identification of EBSAs and steps for establishing networks of MPAs) and decision X/29 (processes for identification and documentation of EBSAs, including capacity building). In parallel with work done through FAO, the COP to CBD adopted (in 2008) criteria for identification of Ecologically or Biologically Significant Areas (EBSAs; decision IX/20 annex 1), as well as guidance concerning the development of representative networks of marine protected areas (decision IX/20 annex 2).

Regional Fisheries Management Organizations (RFMOs) play a key role in achieving the international goals and obligations of countries. Through RFMOs, countries cooperate to achieve sustainable conservation and management of fisheries both within and beyond areas under national jurisdiction. With respect to the selected pilot areas of ABNJ, coastal and flag states are signatories to the Southern Indian Ocean Fisheries Agreement (SIOFA) which is the fisheries agreement that will have the mandate to manage the deep-sea fisheries in the high seas of the southern Indian Ocean once in force. In the Southeast Atlantic Ocean, the South East Atlantic Fisheries Organization (SEAFO) is the mandated institution for fisheries management of deep-sea species in the high seas of the Convention area. The SEAFO Convention provides fundamental principles for its member countries that govern conservation and management of living marine resources under SEAFO's jurisdiction. In the South Pacific, the South Pacific Regional Fisheries Management Organisation (SPRFMO) has recently been developed and, when in force, will be the competent authority to manage deep-sea fisheries in the high seas of the South Pacific. Coastal states, members of the Nairobi and Lima Conventions, bordering the Western Indian Ocean and Southeast Pacific Ocean, respectively, have been involved in the testing of ecosystem-based / area-based management tools in the deep seas of their exclusive economic zones (EEZs). These states are also members of the East African Seas Action Plan and the Comisión Permanente del Pacifico Sur (CPPS), respectively.

The other regional organizations with the competence to manage deep-sea high seas fisheries,

including the North East Atlantic Fisheries Commission (NEAFC) and Northwest Atlantic Fisheries Organization (NAFO) in the North Atlantic Ocean, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) in the Southern Ocean and the General Fisheries Commission for the Mediterranean (GFCM) in the Mediterranean Sea as well as the developing North Pacific Fisheries Commission (NPFC) in the Pacific Ocean - will also be engaged in the project through the different components to facilitate lesson learning and transfer of experiences and also contribute to the demonstration cases of the project. Many of these organizations already have some procedures in place related to DSF management and biodiversity conservation measures in ABNJ from which the project can draw experiences and, vice versa, these organizations can benefit from some of the guidance and tools developed. Flag states will benefit not only from the work done in areas with RFMOs but also in areas where there is no regional agreement that covers deep-sea fisheries management, where regulation of fishing is left to the sole discretion of individual flag states.

In addition, Regional Seas Programs (RSP) located in the high seas and other organizations mandated to address marine environmental issues, such as the OSPAR Commission and the Mediterranean Action Plan (MAP), which is the secretariat for the Barcelona Convention, will be directly engaged in sharing of lessons and good practices on area-based planning and measures building on ecosystem-based management principles in ABNJ.

The tools developed and lessons learned in this project, in relation to management of deep-sea fisheries and protection of deep sea ecosystems, may often be equally useful within national boundaries and therefore also contribute to the sustainability of those fisheries and the protection of deep-sea marine ecosystems in general.

B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

Overview of the deep-seas: The deep-sea ecosystems of the oceans host globally important biological diversity. These areas, are often associated with rare and diverse biological communities, and some benthic habitat-forming species, such as coldwater coral and sponges, are known to be particularly vulnerable to disturbance as they are fragile and very slow growing. Many such epibenthic organisms also have an important structural role in seabed communities, and often provide essential habitat for different species including species targeted by fisheries.

For some, the deep-seas have become the iconic last frontier for the expansion of marine fisheries. Deep-sea fisheries (DSF) are those that take place at great depths (up to 2 000 metres) and many of them are in ABNJ, what is commonly known as the high seas. DSF primarily occur on seamounts, plateaus, banks, ridges and other prominent bottom features, using a range of gears including bottom and mid-water trawls, pots and longlines. The introduction of new international management regimes in the 1970s and more stringent management measures nationally, coupled with technological advances, paved the way for larger-scale fisheries and for their expansion into previously unfished areas, including in the ABNJ. These high seas areas of the ocean are where no one nation has the specific or sole responsibility for management of marine living resources though they fall under the legal framework for ocean governance provided by the United Nations Convention on the Law of the Sea in 1982 (UNCLOS). In some areas these fisheries are managed by RFMOs, whereas other areas lack a competent authority.

Status and threats : Advances in technology have made the deep-seas more accessible for a range of human activities including fishing, oil and gas extraction, optic fiber cable laying (buried or laid on the seabed), deep-sea mining and scientific research. A recent international

review of human impacts on deep-sea ecosystems found deep-sea fisheries currently have one of the highest impacts⁶.

In 2006, an FAO global review found that approximately 280 vessels were involved in high seas bottom fisheries, representing at least 27 flag states. The total global catch of these bottom fisheries, comprised of approximately 60 species, was estimated at around 250 000 tonnes. Even though the fleets and catches in deep-sea fisheries are a small fraction of global fisheries, the expansion of deep-seas fisheries into high seas areas and their potential impacts on fish stocks, globally significant biodiversity and critical habitats has become an international concern.

The types of deep-sea fisheries, their histories, and access to information for their management vary drastically among the different regions and in many cases the current status of deep-sea species and habitats is largely unknown due to a lack of data. In some regions such as the North Atlantic, exploitation of deep-sea species such as black scabbardfish (*Aphanopus carbo*), roundnose grenadier (*Coryphaenoides rupestris*) or redfish (*Sebastes* sp.) commenced in the early to mid 20th century. Availability of data on these fisheries have been facilitated by the existence of long standing RFMOs with jurisdiction for the management of these species, although some North Atlantic deep-sea fisheries have only become a focus of management in the last decade. The Southern Ocean has benefited from a forward looking regional management organization since the 1980s, which currently has one primary deep-sea high seas fishery for toothfish (*Dissostichus* spp.). Although in many of the other regions of the world the information base remains deficient.

Accumulating evidence indicates that few deep-sea fisheries are being managed sustainably relative to the target species, and it remains uncertain what the sustainable yields are. Particularly for target species with low productivity, a pattern of initial high catch rates followed by rapid depletion of initial dense aggregations has been observed. Reviews of fisheries on widely distributed species such as orange roughy (*Hoplostethus atlanticus*) and oreos (*Oreosomatidae*) found serial depletions of local populations to be common.

Deep-sea fisheries can result in considerable bycatch (which may include sharks and potential surface interactions with birds) and impacts on associated habitats and ecosystems, although the effects differ with gears and fishing practices employed. Many bycatch species have the same high vulnerability to fishing as the target species and many deep-sea habitats are easily perturbed by fishing gears. The potential negative impacts from deep-sea fishing operations on special deep-sea communities, such as those dominated by coldwater corals, hydroids, or some types of sponges, or seep or vent communities composed of unique invertebrate or microbial species, have also raised substantial global concern and debate. Impacted populations, habitats and ecosystems are often very slow to recover, or may never recover. Concern for these species is amplified when the communities and ecosystems may also be exposed to threats from other types of human activities such as deep-sea mining. The habitat types estimated by expert review to be most affected by cumulative impacts are sediment slopes, followed by cold-water corals, canyons and Oxygen Minimal Zones.

Challenges and Barriers

There are three key special characteristics of deep-sea fisheries that pose particular challenges to achieving sustainability of fisheries and biodiversity conservation: (i) the high vulnerability of deep-sea stocks to overexploitation and deep-sea habitats to damage, (ii) the difficulties to manage these usually distant-water fisheries, and (iii) a limited knowledge base available on

⁶ Ramirez-Llodra E, Tyler PA, Baker MC, Bergstad OA, Clark MR, et al. (2011) Man and the Last Great Wilderness: Human Impact on the Deep Sea. PLoS ONE 6(8): e22588. doi:10.1371/journal.pone.0022588

the populations, habitats, ecosystems and the fisheries themselves.⁷

There are currently a number of barriers to improving the management of deep-sea fisheries and ensuring sustainability in accordance with the Ecosystem Approach. These barriers will be addressed by the various components in this project. These barriers are discussed below.

- Though there is a legal framework for the oceans, the ABNJ are part of the global commons and have suffered from the open access and unregulated nature of these fisheries. Most of the ABNJ are now covered by RFMOs which have the competence to manage deep-sea fisheries. However, there are still a few gaps where RFMOs are not yet in force or do not yet exist and some areas where information and capacity of the RFMO to manage fisheries or enforce regulations is weak. Countries, either as flag states, port states or participants in regional management organizations must be supported through legal, policy and regulatory frameworks to improve the sustainability of these fisheries in the long run.
- The impact of individual fisheries is usually poorly quantified because necessary information is not collected in a systematic way. Bottom features host globally significant biodiversity, yet few data are available about ABNJ, resulting in limited information/knowledge to guide fisheries management and biodiversity conservation. This knowledge gap needs to be urgently closed in order to inform the management of these fisheries and allow potential impacts of fisheries and other activities in the future to be evaluated.
- Limited understanding of how to effectively implement appropriate guidelines such as those related to VMEs, and the relevance and effectiveness of tools, many of which having been developed for coastal ecosystems, need to be adapted to be appropriate for the ABNJ.
- Limited capacity and experience with practical implementation of strategic and tactical management measures for sustainability of fisheries and biodiversity conservation in ABNJ, including the capacity for effective monitoring, properly taking into account biodiversity-related commitments.
- Limited consensus and collaboration across diverse communities on the priorities and methods for improving the management of the ABNJ, against a background of increasing pressures from multiple sectors.

Global discussions and current initiatives on the deep-seas

The issues arising from these special characteristics of deep-seas have been discussed in various international forums, including the FAO Committee on Fisheries (COFI) and UNGA meetings over recent years. In addition to the VME and EBSA initiatives, the various partners involved in this project have a baseline of existing and past programmes in the ABNJ to build on.

The FAO baseline programmes, relevant to deep-sea fisheries in the high seas, cover the full range of fisheries management activities from data collection and analysis through development of methodologies; species identification tools for commercial species (FishFinder Programme); socio-economic and biological assessments and monitoring; development of fisheries management plans and advice on management measures and evaluation of their performance, policies and strategies; support to institutions including Regional Fisheries

⁷ FAO. 2007. Report and documentation of the Expert Consultation on Deepsea Fisheries in the High Seas. Bangkok, Thailand, 21–23 November 2006. FAO Fisheries Report 838. Rome. 203p.

Bodies (RFBs); development of fisheries laws and instruments; advice and development of tools for Monitoring, Control and Surveillance (MCS); and advice on technology development, fish processing, food safety and trade. FAO also supports various types of networks and has strong partnerships with the private sector. Many of these programmes already address elements of relevance to ABNJ. FAO members, through COFI (in 2009), approved the proposed FAO Program on Deep-sea Fisheries in the High Seas and requested FAO to continue that work and to secure extra budgetary funding to support its implementation. UNGA Resolution 64/72 also welcomed the "FAO program proposal for deep-sea fisheries in the high seas on ensuring sustainable use of marine resources and protection of vulnerable marine ecosystems" and invited "States to support the program so that its elements may be finalized as a matter of priority." The project will have access to and build on all these core activities during project implementation and is incremental to the FAO DSF program. It will ensure that good management practices, including assessment and improved MCS, for sustainable deep-sea fisheries and conservation of vulnerable marine ecosystems in ABNJs are integrated into an expanded long-term program.

The baseline programmes of UNEP relevant to this project are: (i) Ecosystem Management; addressing ecosystem-based management of all ecosystems including marine and coastal ones, and (ii) Environmental Governance; addressing assessment of the status and quality of the environment (including marine and coastal) for the purpose of providing policy relevant information. Related to (i), UNEP has developed guidelines and tools on ecosystem-based management of marine and coastal areas, and these tools are being applied to a number of areas. Relevant UNEP activities include decision-support tool development (such as ecosystem valuation and trade-off analysis, environmental assessment, impact assessment and strategic environmental assessment), technical guidance and training, demonstrations and policy support for planning and implementation of comprehensive ecosystem-based ocean management and governance to ensure long-term ecosystem sustainability and productivity. Relevant to (ii) UNEP has provided capacity support to coastal states in carrying out assessments on the status and quality of the marine environment, and working with the World Conservation Monitoring Centre of UNEP (UNEP-WCMC), a series of assessment reports on deep-sea ecosystems, based on available information, have been produced.

The Convention of Biological Diversity (CBD) has facilitated processes of relevance to the Project. The COP to CBD adopted (in 2008) criteria for identification of Ecologically or Biologically Significant Areas (EBSAs; decision IX/20 annex 1), as well as guidance concerning the development of representative networks of marine protected areas (decision IX/20 annex 2). An inter-sessional CBD expert workshop reviewed the experience with the application of EBSA and VME criteria, concluding that the two sets of criteria were compatible with one another. However, because EBSAs and VMEs were developed under different international processes (e.g. within fisheries management frameworks and the CBD framework) the consequences for management are different. The intersessional workshop results fed into COP 10 decision X/29 (adopted in 2010) which, *inter alia*, outlined how regional processes could apply the criteria for the identification of EBSAs. These processes have commenced in several regions of the world (NE Atlantic, SW Pacific Tropical West Atlantic and Caribbean) and a web repository supporting the identification of EBSAs already exists, housed by the CBD Secretariat aimed at sharing scientific and technical information and experiences. Training material for applying these tools has also been developed and is available through the CBD.

IUCN, the International Union for Conservation of Nature is a permanent observer at the United Nations, supported by a scientific network of over 8000 scientific researchers, is active in policy debates and in standard setting for biodiversity conservation and the sustainable use of living resources and ecosystems, managing field projects all over the world. A Fisheries

Expert Group (IUCN/CEM/FEG), consisting of senior international fisheries experts with substantial knowledge of global fisheries, including policy, management and science for ecological, economic, and social dimensions of large-scale and small-scale fisheries, was established in 2008. Its mission is to foster the sustainable development of fisheries and to promote the conservation of marine ecosystems, to inform fisheries policy and related conservation strategies, to propose management methods and tools, and to provide a link between the fishery and biodiversity expert communities of IUCN. This group is currently preparing a book on the main issues regarding governance of fisheries and biodiversity, including in ABNJ. The IUCN Species Programme, working with the IUCN Species Survival Commission (SSC) has been assessing the conservation status of species on a global scale ("The Red List"). As of 2011, the status over 10,500 marine species have now been assessed for their risk of extinction.

At the regional level, RFMOs with competence (i.e. mandate) to manage demersal fisheries have initiated efforts to implement the above UNGA resolutions and the DSF guidelines, including addressing the protection of VMEs. For example, in NAFO, NEAFC and SEAFO areas have prohibited bottom fishing in some areas to protect areas believed to contain VMEs based on the criteria provided in the DSF guidelines. However, all RFMOs report that their efforts are in early stages and have emphasized that further technical and scientific guidance is required for full and effective implementation of the DSF Guidelines for identification and protection of VMEs.⁸

The industry, in some regions has been particularly active in promoting sound management of these fisheries where there are regulatory gaps. The industry group, the Southern Indian Ocean Deepwater Fishers Association (SIODFA) has established benthic protected areas and undertaken other management actions in the absence of a functioning RFMO with a mandate to manage deep-sea fisheries in the Indian Ocean.

The pace of engagement and coverage of guidance needs to be significantly increased, given the known sensitivity of many of these stocks, bycatch species and habitats. These systems are under threat now and urgently need to be properly protected and the fisheries sustainably managed. ABNJ require a large-scale concerted approach amongst relevant agencies and stakeholders. Commitments for co-operation exist among the key agencies and organizations in the ABNJ deep-sea community. Moreover, key stakeholders also have shown an increasing resolve to achieve tangible results; for example, past activities with respect to the application of responsible fishing practices by industry and RFMO/As to ensure long-term protection of fish stocks, habitats, and biodiversity of deep-sea ecosystems. This GEF project presents an unprecedented opportunity for the different communities associated with deep-sea high seas fisheries and biodiversity conservation to pool their efforts in order to accelerate progress on all of these fronts. To maximise benefits in the time frame of this project, fisheries will be the main focus, although it is recognized that in the future, emerging activities such as deep-sea mining have the potential to also create significant impacts on biodiversity and interfere with deep-sea fisheries.

- B. 2. incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund/NPIF) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

⁸ FAO. 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. 2011. 74p.

At the global level, the development and potential impact of deep-sea fishing has accelerated much beyond the rate at which scientific understanding of habitats, organisms, populations and ecosystems has accumulated or relevant management approaches developed, and the widely noted concern for the health of these ecosystems is an immediate response. However, while valuable steps have been taken to scope and define the systems and the issues, and to start to specify the nature of ecosystem vulnerability and potentially damaging actions, there has not been the means so far to focus resources on realizing in practice the harmonization of conservation and sustainable use following the principles of the ecosystem approach and using innovative and appropriate management tools. Addressing this issue is increasingly important, and is also timely, as greater consumer and international policy pressure creates conditions favourable for sustainable resource use and good management practices. However, the guidance for doing so, and for ensuring that measures are effective, coherent, fully integrated and widely accepted, needs to be well grounded. Without the Project, some elements of deep-sea fisheries management and biodiversity conservation would still be taken forward, but much more slowly and in a more piecemeal and less focused manner, with far more limited prospects of useful uptake and impact. Slow and piecemeal actions will increase the risk of further and possibly irrecoverable habitat and ecosystem damage in the ABNJ including on vulnerable species, before effective measures could, if ever, be put in place.

The successful implementation of this Project would represent a significant step towards the sustainable use of deep-sea fish stocks, protection of associated bycatch species, and of ecosystems, habitats and overall biodiversity in the high seas. As these deep-sea systems are currently under no or minimal protection in many areas, strengthening the implementation of recognized international guidelines through this project would substantially contribute to the reduction of adverse impacts on these ecosystems and conserve them for future generations. Specifically, the global environment would benefit through the improved management of deep-sea fisheries in high seas areas as a result of the practical application of management recommendations; promotion of best practices in bottom fisheries in the high seas leading to reduced impacts on deep-sea habitats; a significant contribution to global knowledge on these fisheries and associated ecosystems; integration and provision of information needed for identification of VMEs and EBSAs leading to enhanced ability of states to apply the DSF Guidelines and CBD Guidance; and the support to adaptive management and MCS in areas where management frameworks are weak or non-existent. Furthermore, the partners in selected pilot areas will be introduced to and develop the capacity to apply ecosystem-based / area-based planning tools.

The Project components are as follows:

- 1) Improved policy and legal frameworks for sustainable fisheries and biodiversity conservation in the ABNJ deep seas;
- 2) Reducing adverse impacts on VMEs and EBSAs;
- 3) Improved planning and adaptive management for ABNJ-DSF;
- 4) Development and testing of a methodology for area-based planning; and
- 5) Project monitoring and evaluation.

The overall approach of the Project will be to develop and adapt management processes and best practices, to test the practical application of management instruments and tools to advance sustainable DSF and biodiversity conservation. Adaptation of various measures and methodologies developed originally for coastal areas to ABNJ-DSF will be necessary and will therefore be given special attention. To ensure greater sustainability, the project will aim at working directly with countries through their RFMOs as well as with industry partners and other relevant stakeholders to enable them to improve practices in the long term through national and regional uptake. Throughout the various components, innovative partnerships with the fishing industry will enable greater uptake of practices and substantial increases in data

availability. Furthermore the project will support countries commitments to international agreements. Fostering collaboration and participation among different stakeholder communities from both fisheries and conservation groups – and also from industry groups and civil society at large – will lead to improved communication and understanding among all stakeholders. The project will focus on the greatest threats to sustainable fisheries management and biodiversity conservation in the ABNJ deep-seas including those aiming at reducing significant adverse impacts of fisheries on VMEs and EBSAs. Pilots of policy and management frameworks and tools will be undertaken in at least one selected pilot area of the Indian and Southeast Atlantic oceans to improve practices for fisheries management and biodiversity conservation in ABNJ. The project will also facilitate and test area-based planning tools in the South Pacific and Indian Ocean. The results and good practices obtained are expected to have a catalytic effect on global discussion on ABNJ.

GEF incremental support to the five Project components is explained in more detail below:

COMPONENT 1 – IMPROVED POLICY AND LEGAL FRAMEWORKS FOR SUSTAINABLE FISHERIES AND BIODIVERSITY CONSERVATION IN THE ABNJ DEEP SEAS. This component will support the development of improved policy and legal frameworks that incorporate obligations and good practice from legal and policy instruments for sustainable fisheries and biodiversity conservation. Global legal frameworks and international instruments relevant to deep-seas fisheries and biodiversity conservation in the ABNJ will be reviewed and made available to competent authorities such as RFMOs and other regional organizations, countries and other stakeholders, in a comprehensive but easily accessible global implementation guide. Furthermore, impediments to the implementation of international instruments will be identified, with particular emphasis on the DSF Guidelines and relevant CBD decisions, and remedial measures proposed. This will enable the operationalization of regional fisheries agreements, including the associated interim arrangements, that are either not in force or require greater uptake from signatories. Through this component, options for Rights-based Management (RBM) systems and market-based incentives (e.g. trade certification and ecolabelling) will be formulated and tested in at least one pilot area. All of these elements will contribute to the development of model legal and policy frameworks, addressing also RBM, for enabling sustainable DSF management and biodiversity conservation at the regional and national levels, customized to suit the local context and with particular emphasis on support and capacity development for developing countries.

The creation of sound global partnerships between different stakeholder groups to improve understanding of existing relevant policy and legal frameworks and global processes for ABNJ management and related challenges will be instrumental. Support will be given to such networks, ensuring their involvement in the international and regional discussions on deep-sea fisheries and biodiversity conservation. Linkages will be established between these partnerships and the communities of practice supported through the ABNJ Global capacity project.

The **main transformational change** achieved through this component will be improved global understanding and use of existing policy and legal frameworks for DSF and biodiversity conservation, for the benefit of countries, RFMOs, other regional organizations, fishing industry and other relevant stakeholders. Furthermore, improved coordination through collaborative networks and partnerships between the different stakeholders groups within ABNJ-DSF and biodiversity conservation will be facilitated. The **main global environmental benefits** will be a broader/deeper application of these frameworks in regional and national contexts leading to more sustainable DSF and better conservation of deep-sea ecosystems and biodiversity in the ABNJ.

COMPONENT 2 – REDUCING ADVERSE IMPACTS ON VULNERABLE MARINE

ECOSYSTEMS (VMEs) AND ECOLOGICALLY AND BIOLOGICALLY SIGNIFICANT AREAS (EBSAs). This component will focus on improving application of management tools for mitigating the greatest threats to ABNJ sustainable fisheries and biodiversity conservation in the ABNJ and capacity development. Current information available on the target stocks, vulnerable ecosystems (particularly VMEs and EBSAs) and socio-economic data associated with deep-sea fisheries, will be compiled, analyzed and made available, facilitating the classification of risks and threats and the identification of vulnerable marine ecosystems. The component will facilitate coordination and exchange of information between specific fisheries and biodiversity conservation efforts related to VMEs and EBSAs, as the information collected will be made available through interactive web databases on VMEs and EBSAs, focused on two pilot areas, which can also link dynamically to other databases, such as the Ocean Biogeographic Information System (OBIS), etc. Combined, these databases will provide the geospatial information required to allow competent authorities to identify precautionary measures aimed at protecting VMEs and towards identifying EBSAs. Particular attention will be paid to involving the fishing industry in these activities as the industry holds a large amount of data and information. The definition of indicators in terms of species and critical habitats, and the development of associated management measures and improved fishing practices to reduce impacts on VMEs and EBSAs will be identified in at least one pilot region. The component will also foster an improved understanding of how to identify VMEs and EBSAs in an operational context (ie at sea), as well as coherence and compatibilities between the use of the criteria across sectors.

Customized support will be provided to at least ten developing countries to fully integrate the best practices developed. The capacity of countries to address these issues through relevant international processes, including the identification of VMEs and the CBD EBSA process (in line with relevant CBD COP and Subsidiary Body on Scientific, Technical and Technological Advice [SBSTTA] decisions), will be developed to facilitate incorporation into national and regional processes.

The main **transformational changes** will consist of an increased capacity in at least half of the competent authorities including RFMOs and other regional organizations, national and regional experts in the two pilot areas for improving decision-making processes to address the greatest threats in DSF through identification of priorities, full engagement of stakeholders, training and application of criteria for VMEs and EBSAs. Due to the recent adoption of the criteria and associated management measures for DSF, there has been and will be a significant learning process and need for adaptation on the practical application of the criteria in management contexts. Another important transformational change will be achieved through strengthened capacity and knowledge sharing and collaborative arrangements on DSF and biodiversity conservation in ABNJ. The main **global environmental benefit** is the reduction of threats and adverse impacts on VMEs and EBSAs of deep-sea fishing through the use of improved information and development of management measures and practices that are also of relevance and beneficial to other regions and other human activities in the DSF areas.

COMPONENT 3 – PROMOTION OF IMPROVED PLANNING AND ADAPTIVE MANAGEMENT FOR ABNJ DEEP-SEA FISHERIES. This component will focus on facilitating adoption of sound planning and good practices for improving management processes and tools consistent with an ecosystem approach, based on existing experiences that are adapted to the special conditions for DSF in the ABNJ. As such, the component will make use of existing methodologies for stakeholder identification, consultation and engagement processes and risk assessment as a tool for setting priorities for decision-making, criteria and methods for the identification, assessment and prioritization of key issues, including adapting the tools to the special case of DSF. Both management processes and tools will be tested in at least one pilot area for lesson learning and eventual up-scaling. It will identify, evaluate and

refine the management options that could be specifically applied to assist with the management of DSF including the potential value and difficulties related to the use of area based planning, better fishing methods and targeting strategies as well as access, effort or catch restrictions. Using also the improved policy and legal frameworks developed in Component 1 and the information and management tools developed in Component 2, the Project will develop the appropriate consultation and decision-making processes that should facilitate completion of EAF based management planning for DSF. Adaptive management planning based on an ecosystem approach will thus be facilitated, and support provided for implementation to competent authorities in at least one ABNJ area. The component will also promote strategies for improving management effectiveness through the development and testing of monitoring programmes based on indicators and reference points and the development of an action plan for adoption of best MCS practices, adapted to the specific conditions of ABNJ-DSF, is formulated and adopted in one of the selected pilot areas.

The main **transformation change** will consist of an evolution of the behavior/practices of the different stakeholders involved in the various planning and management processes, including the RFMOs, their members countries and the deep-sea fishing industry, towards more sustainable DSF in the ABNJ. This component will also contribute to ensuring that the latest policy and scientific guidance and tools on ABNJ deep-seas are applied by competent authorities and countries in their management processes. In the selected pilot areas, enhanced knowledge and capacity for management of deep-sea fisheries and related ecosystems, and their use for management planning based on practical experience from at least one pilot region will lead to a transformational change in the management of these fisheries. The main **global environmental benefits**, derived from a global application of the ecosystem approach to fisheries in the deep-seas, will be more sustainable deep-sea fisheries and better conservation of deep-sea ecosystems and biodiversity in ABNJ.

COMPONENT 4 - DEVELOPMENT AND TESTING OF A METHODOLOGY FOR AREA-BASED PLANNING IN SELECTED REGIONS This component will be based on the methodologies of marine area-based planning, which is inter-sectoral, inter-disciplinary and ecosystem-based. The underlying principle is that current knowledge on the biodiversity, ecosystems and ecosystem services of the deep-sea systems will be taken into consideration in the identification of zones for specific use or sectoral activity planning. UNEP developed ecosystem-based planning methodologies for specific marine and coastal areas, and the existing methodologies will be further developed and adapted to be used for regional planning processes. Accumulated experiences from Northeast Atlantic and Mediterranean on spatial management in ABNJ and their lessons learnt and experiences will be shared with other competent authorities in ABNJ including RSPs and RFMOs in other areas in further developing and adapting the existing methodologies.

The further developed methodologies will be tested in two pilot areas where ABNJ issues are considered under competent authorities, including the regional seas programmes and regional fishery management organizations. Preliminarily, the Southeast Pacific Ocean as well as the Western Indian Ocean have been identified as the test regions. The activities in the Southeast Pacific will be conducted by and under the framework of CPPS (Comisión Permanente del Pacifico Sur), which addresses environmental and fisheries management within the countries EEZs and has an interest in conservation and sustainable utilization of marine resources in its adjacent high seas. The testing in the Western Indian Ocean will be executed by and under the framework of the Nairobi Convention working closely together with the emerging RFMO, SIOFA.

The component's expected outcome will be the well established and tested methodologies for marine area-based planning on a regional scale. The methodologies should include ecosystem

services valuation, cost-benefit analysis and trade-off analysis. As the result of the testing of the methodologies, the regions will have area-based regional plans.

The main **transformation change** will consist of improved sustainable management and biodiversity conservation of deep-sea ecosystems through the adaptation and further development of inter-sectoral area-based planning and testing in selected pilot cases in ABNJ. The main **global environmental benefit** is through making available spatial planning tools and methodologies to competent authorities including RFMOs and RSPs, which can be applied in other regions.

COMPONENT 5 - PROJECT MONITORING AND EVALUATION (M&E). To be implemented efficiently and effectively, project management will need a specific M&E system, allowing for close monitoring of the different project activities, outcomes and impacts, as well as for midterm and post-completion evaluations to draw all useful lessons for the future and capitalize on the experience acquired. Project M&E will adhere to the IW-Learn criteria including an IW-Learn project website, development of experience notes, and participation in IW conferences and workshops and will be funded by 1% of the total GEF International waters grant. Furthermore the GEF International Waters and Biodiversity tracking tools will be submitted as required. The present Project, along with three other projects (tuna fisheries, global coordination and ocean partnership fund) is an integral part of an overall Program called "Global sustainable fisheries management and biodiversity conservation in the ABNJ". The project M & E should therefore constitutes a "module" (self-standing but fully integrated) of the overall M&E system put into place at the Program's level.

Institutional arrangements: The Project will be implemented by FAO and UNEP through a partnership approach, built on the international and regional bodies and associated stakeholder groups that have been involved in the background developments or would be expected to engage in policy development and practical implementation. FAO will be responsible for components 1-3 and 5 of the project, and UNEP will be responsible for component 4 related to inter-sectoral area-based planning. There will be a number of executing partners, including institutions responsible for the fisheries, regional seas programmes, private sector and civil society. The partners, roles and responsibilities will be elaborated during project preparation. It is envisaged that IUCN will execute EBSA related work under Component 2, and may be involved in other components (to be elaborated in the project document). The five RFMO/As with the competence to manage fishing activities in the high seas, and their member states as well as industry groups, such as the SIODFA and associations such as the International Coalition of Fisheries Associations (ICFA), will be instrumental partners in the project, assisting uptake of frameworks and practices and their practical implementation.

A Project Steering Committee (PSC) will be set up and will be composed of representatives from FAO, UNEP, UNEP-WCMC, IUCN, the deep-sea RFMOs, CPPS, the Nairobi Convention, the deep-sea fishing industry (SIODFA, ICFA, and other relevant partners), relevant NGOs/IGOs, and the GEF Secretariat. The PSC will provide overall oversight and policy guidance for the implementation of project activities. It will liaise with and report back to the ANBJ Programme steering committee to facilitate overall implementation of the ANBJ programme.

- B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF). As a background information, read Mainstreaming Gender at the GEF.":

Improved fisheries management and conservation of deep-sea marine biodiversity will lead to global economic benefits, relating to both use and non-use values, due to the increased health

and potential for long-term use of these important natural resources. This Project will also seek to clarify the socio-economic benefits being accrued to communities involved in the value chain of deep-sea fisheries, from the fishers to those working in ports and processing facilities with special focus on the three pilot ABNJ regions in the southern Indian Ocean, southeast Atlantic and south Pacific.

Women have been historically underrepresented in marine science and fisheries management; thus the Project will seek to support and engage them through training programs and active involvement. The Project will also endeavor to include women in training and capacity building activities and realistic targets for their participation will be set during project preparation.

- B.4 Indicate risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:

Risk type	Rating	Risk mitigation measures
<p>The great number and diversity of stakeholders in deep-sea fisheries and biodiversity conservation constrains efficient coordination and implementation of the Project's activities</p> <p>There could be risks of non-cooperation from fishing actors following the adoption of measures constraining their short-term financial interests.</p>	M	<p>The involvement of stakeholders is built in throughout the project, providing ample opportunity for interactions and discussions between different partners.</p> <p>In cases where measures taken constrain short-term financial interest, the project will explore with fishing actors alternative management/compensatory measures.</p>
<p>Changes in decision makers, or other events beyond the control of the Project, lead to changes in policies and/or support for the objectives and activities. Political risks may include lack of support at national level, or unexpected conflict between regional partners.</p>	M	<p>The Project priorities are in line with what all stakeholders have agreed in international forums (section A.2 above) and are hence strongly anchored in existing policies. Support at national and regional level will be secured through careful selection of initial partner States, linking with regional bodies, and the building of support through regional and international dialogue and sectoral policy and development processes. It is envisaged that support will be strengthened/widened during preparation and all along implementation. The project will work to an agreed-upon timeline.</p>
<p>There is insufficient capacity to support the Project's proposed transformational changes, particularly with regard to institutional and administrative support</p>	M	<p>The scope of the Project has been agreed with the relevant stakeholders and, by focusing on a selected number of issues in a limited number of locations, it should be possible to achieve results without putting undue pressure on the existing institutions. Some capacity building/training will also be available from the Project/Program as required in the case of developing countries.</p>
<p>Because of the actual lack of scientific knowledge on the particularly complex and fragile ecosystems of the deep-seas, progress concerning the development of more biodiversity-friendly tools and practices is less successful than expected</p>	M	<p>Sustainable management and biodiversity conservation of deep-sea ecosystems in the ABNJ includes activities aimed at substantially enhancing the practical knowledge available through compilation and sharing of existing information from different communities, targeted information gathering to cover key gaps and through engaging the fishing industry in the data collection processes, in this way creating awareness and commitment to the management process. An adaptive approach to management will be adopted to allow for new information and new results to improve practices.</p>
<p>Adverse climate changes compromise the Program's achievements, particularly concerning the ecosystems and biodiversity.</p>	L	<p>The significance and impact of climatic changes depends on the physicochemical and bioecological transformational processes involved, not all of which are well understood in the deep seas. However, significant changes are not expected to take place for decades. In the meantime, precautionary management to increase resilience and knowledge building will be required as supported through this project. The Program's Monitoring and Evaluation (M&E) system will include indicators allowing for a close monitoring of the possible climate change impacts over time. Moreover, climate resilient management practices for particularly vulnerable ecosystems will be developed and promoted.</p>

B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:

Key stakeholders that will participate in the Project include:

- National governments (from both developing and developed countries)
- The five RFMO/As with the competence to manage fishing activities in the high seas, and their member states (South East Atlantic Fisheries Organization -SEAFO; North East Atlantic Fisheries Commission - NEAFC; Northwest Atlantic Fisheries Organization - NAFO; General Fisheries Commission for the Mediterranean- GFCM; Commission for the Conservation of Antarctic Marine Living Resources -CCAMLR);
- Emerging/developing RFMO/As (SIOFA, SPRFMO and NPFC);

- Relevant industry groups such as the Southern Indian Ocean Deepwater Fishers Association (SIODFA) and the International Coalition of Fisheries Associations (ICFA);
- Relevant expert groups such as the Global Ocean Biodiversity Initiative (GOBI), the IUCN/CEM/FEG Fisheries Expert Group and the Western Indian Ocean Marine Science Association (WIOMSA);
- OSPAR Commission administering the Convention for the Protection of the Marine Environment of the North-East Atlantic;
- Mediterranean Action Plan (MAP) for the implementation of Barcelona Convention;
- Permanent Commission for the South Pacific (CPPS) administering the South-East Pacific Action Plan, and the Convention for the Protection of the Marine Environment and Coastal Zones of the South-East Pacific (Lima Convention) and its associated protocols;
- Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean;
- Relevant NGOs/IGOs and networks such as the Deep-sea Conservation Coalition, WWF, High Seas Alliance, Marine Conservation Institute (MCI), Birdlife International, Conservation International, Census of Marine Life (CoML), Natural Resource Defense Council (NRDC), and The Nature Conservancy;
- Relevant universities and scientific institutes; United Nations bodies/agencies, and the deep-sea scientific community which includes a wide range of researchers, scientists and institutes from around the world.

It will be particularly important to engage the deep-sea fishing industry in this Project to foster a sense of ownership and improve practical utilization of the tools and guidance developed and contributing to testing and uptake of these. In addition, the industry will be one of the primary catalysts for implementation of the DSF Guidelines, as it holds important information on deep-sea fisheries and ecosystems and. Implementation of the CBD's scientific criteria (decision IX/20 annex 1 & 2) will likewise require broad scientific, expert and sector engagement. National engagement is expected primarily through adjacent and/or flag states, those with significant markets and consumer interests, and/or those with specific policy commitments to supporting global environmental goods. The project as a whole, through its aim to improve management of DSF and protect marine biodiversity, benefits the global community as the living marine resources of the high seas belong not to one country, but to all.

B.6. Outline the coordination with other related initiatives:

This project is one of the four projects under the GEF Program "Global sustainable fisheries management and biodiversity conservation in the Areas Beyond National Jurisdiction." It will form an integral piece of the overall program by addressing issues specifically on the deep seas. Collaboration will be established with the other three projects.

On a global level the Project will be linked to ongoing policy processes related to deep-sea fisheries and protection of deep-sea or open ocean marine biodiversity, e.g. through COFI, the UN General Assembly related activities, the CBD, the International Seabed Authority (ISA), international scientific initiatives, and NGOs/IGOs.

FAO has initiated a large-scale programme on deep-sea fisheries in the high seas covering a range of activities, which include the following projects: "Fisheries management and marine conservation within a changing ecosystem context"; "Support to the implementation of the international guidelines on the management of deep-sea fisheries in the high seas" and "Développement d'une banque de données sur les écosystèmes marins vulnérables en haute mer". FAO is also one of the lead partners in iMarine, a project aimed at establishing and operating a data Infrastructure supporting the principles of the Ecosystem Approach to Fisheries Management and Conservation of Marine Living Resources. One of the two business cases of iMarine developments focuses on "Support to FAO's deep seas fisheries programme".

Specific FAO global efforts providing policy and management guidance in various fields of relevance to the present project such as on EAF, bycatch and discards management, improved species identification, support to States and RFMO/As in their use of spatial-management tools, development and implementation of tools and instruments for improving MCS and assisting in the fight against IUU (e.g. the 2009 FAO Port State Measures to Prevent, Deter and Eliminate IUU fishing and related initiatives include the proposal to establish a global record of fishing vessels, refrigerated transport vessels and supply vessels and the 1993 Agreement to promote compliance with international conservation and management measures by fishing vessels on the high seas [Compliance agreement]); and efforts addressing market incentives through the development of international Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries will also benefit the project.

UNEP is implementing a comprehensive global programme on marine ecosystem-based management, including development of tools, guidance and capacity support to countries and regions, including decision-support tool development such as ecosystem valuation and trade-off analysis, environmental assessment, impact assessment and strategic environmental assessment. Work will be initiated to develop options for reconciling fisheries and conservation objectives along with other human uses of ocean resources through cross-sectoral planning frameworks. Recent work also includes technical advice on economic subsidies, trade-agreements and resource efficiency in commercial fisheries.

Coordinated by IUCN, the Global Ocean Biodiversity Initiative (GOBI) is an international scientific partnership of over 21 marine institutions advancing the scientific basis for conserving biological diversity in the deep seas and open oceans. It aims to help countries, as well as regional and global organizations, to use and develop data, tools, and methodologies to identify EBSAs in the oceans, with an initial focus on areas beyond national jurisdiction. Relevant to this project, GOBI work to date has mainly focused on developing both technical guidance and training materials concerning implementation of the CBD EBSA criteria, including technical reports that supported COP10 guidance endorsed in 2010. The project will benefit from the results, experiences and expertise GOBI as well as the work of the initiating partners of GOBI including the Census of Marine Life (CoML), the Ocean Biogeographic Information System (OBIS), UNEP-WCMC, the Marine Conservation Institute (MCI), the London Zoological Society, and Duke University's Marine Geospatial Ecology Lab. The project will also benefit from the long-term standard setting work of IUCN Species Program and its Red List of Threatened Species.

Birdlife International has expressed an interest in cooperation similarly to its successful involvement in the Southwest Indian Ocean GEF project.

At a regional level the Project will be explicitly connected to the activities under other GEF projects, such as the continuing activities under the UNDP/GEF Agulhas and Somali Current Large Marine Ecosystems (ASCLME) Project and the WB/GEF South West Indian Ocean Fisheries Project (SWIOFP).

Close cooperation with regional organizations such as the Indian Ocean Commission (IOC), Nairobi Convention, Southwest Indian Ocean Fisheries Commission (SWIOFC), and the Benguela Current Commission (BCC) as well as regional industry and science initiatives such as SIODFA and Mar Eco South will be maintained. The FAO EAF-Nansen Project will also be relevant regionally in terms of improved knowledge on species, stocks and ecosystems and lesson learned from applying the EAF. The research vessel Dr Fridtjof Nansen, which flies the UN flag, has for example conducted several ecosystem surveys including in the Indian ocean in partnerships with ASCLME and SWIOFC and one pelagic survey on the seamounts in the high

seas of the Southern Indian ocean in collaboration with ASCLME and IUCN through the GEF funded UNDP/IUCN Seamounts in the Southern Indian Ocean project. This project has carried out exploratory work on some aspects of pelagic and benthic high seas marine biodiversity in the Indian Ocean, reviewed the existing and potential future legal frameworks for improving human activities in the high seas and examined some aspects of the impacts of DSF on seamounts ecosystems. Although the latter project will be completed by the initiation of the current project, the results achieved, including the increased knowledge resulting from two ecosystem surveys covering selected seamounts of the Indian Ocean and preliminary studies on ocean governance issues will be relevant contributions. These activities confirmed the biological importance of the seamount areas studied and stimulated collaboration in the region. With respect to issues of discards and bycatch recording the proposed Project will share some technical and policy elements with the 2002-2008 FAO/UNEP/GEF program on 'Reduction of Bycatch in Tropical Shrimp Trawling' (REBYC). These and other linkages, and those with a range of national and other initiatives, will be defined in more detail in project preparation stages.

C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

FAO's comparative advantage is defined as: "technical capacity and experience in fisheries, forestry, agriculture, and natural resources management". More specifically, in International Waters this includes the Code of Conduct for Responsible Fisheries; enhancing institutional, planning and management capacity for sustainable fisheries; sustainable and ecosystem approaches to fisheries management, including technical and normative measures for the reduction of the environmental impact of fisheries. In particular, FAO led the development of the International Guidelines for the Management of Deep-sea Fisheries in the High Seas. These aforementioned instruments, guidelines and measures also address important biodiversity issues, and have put FAO at the forefront of addressing biodiversity issues in the high seas. The FAO work on bycatch management with the endorsement of the International Guidelines on Bycatch Management and Reduction of Discards, as well as FAO's long-term commitment to providing improved knowledge of commercially exploited and vulnerable species through the long standing FAO FishFinder Programme and the work in support to States and RFMO/As in their use of spatial-management tools within the ecosystem approach to fisheries; being of particular relevance.

At the global level, the FAO Committee on Fisheries (COFI) is a forum for all the fisheries administrations of the world and ensures that the Organization is in touch with the developing and critical issues in fisheries, including deep-sea fisheries issues. FAO is in a unique position as a neutral forum for global discussions on fisheries and as convener of crucial stakeholders such as the fishing industry. FAO has good working relationships with RFMO/As, national fisheries agencies and numerous other institutions, programs and projects around the world relevant to the project. This comparative advantage has been recognized inter alia in FAO's role in the current REBYC programme for shrimp bycatch reduction, Protection of the Canary Current Large Marine Ecosystem (LME), Bay of Bengal Large Marine Ecosystem, and its increasing influence in improving RFMO/As, and in providing major technical resources to GEF LME programmes.

UNEP's comparative advantage builds on UNEP's role as the host of several global and regional environmental conventions of relevance for ABNJ including e.g. the CBD, Convention on Migratory Species (CMS), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and importantly relevant Regional Seas Conventions and Action Plans. In addition, UNEP has well-established relations with leading research institutions in the field, global networks of NGOs, national and regional governmental bodies, as well as the private sector that are also actively involved in ABNJ-related initiatives. Finally, UNEP has a major role and extensive regionally-based capacity building activities and environmental awareness and information dissemination initiatives at regional and global levels. UNEP's

principal contributions to the ABNJ policy dialogue focus on the following key areas: (a) Assessment of the Environmental Status and Ecosystem Services in ABNJs; (b) Ecosystem-based Management of ABNJs, incl. risk-assessment, ecosystem valuation, trade-off analysis and marine spatial planning; and (c) Capacity building resources and awareness related to component (a) and (b).

C.1 Indicate the co-financing amount the GEF agency is bringing to the project:

FAO will contribute both in-kind and grant funding to this project through the time of staff, related activities under the regular programme of the Fisheries and Aquaculture Department, project funds from projects supporting the implementation existing deep-sea high seas program, the i-Marine initiative and the EAF-Nansen project [US\$ 10,800,000 in-kind and US\$ 1,700,000 in grant].

UNEP will contribute in-kind funding to this project through the time of staff, programme activities from its marine and coastal ecosystem programme and funds from other projects, including broad-scale spatial planning for protection of large marine mammal corridors and habitats; marine and coastal habitat mapping and assessment, tools for ecosystem valuation and trade-off analysis; and regional seas capacity building [US \$ 8,000,000 in-kind].

C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:

This Project supports decisions and recommendations of the FAO Committee on Fisheries, in which all member countries participate, and the United Nations General Assembly, specifically UNGA Resolutions 58/240, 61/105 and 64/72. FAO led the development of the International Guidelines for the Management of Deep-sea Fisheries in the High Seas, which was adopted in August 2008 by 69 countries. The Project will support and build the capacity of countries to implement these Guidelines. The Project furthermore relates to one of the eleven FAO strategic objectives, Strategic Objective C "sustainable management and use of fisheries and aquaculture resources" reflected in FAO's Strategic Framework 2010-2019. The Project will benefit from the expertise and experience of the FAO Fisheries Department, both at FAO Headquarters and in the regions. In addition, an interdepartmental Task Force has been established to provide guidance and technical advice on this topic. A program coordination committee will be established to guide the Project and present results to donors.

This project fits within two UNEP sub-programmes: (i) Ecosystem Management: ecosystem-based management of marine and coastal areas in which UNEP develops decision-support and policy guidelines and tools and pilot-application of these tools to a number of areas; and (ii) Environmental Governance: provision of policy relevant assessment information, through which UNEP has been providing capacity support to coastal states in carrying out assessments on the status and quality of the marine environment, including in ABNJ. The Project will benefit from the expertise and experience of the UNEP's Freshwater and Marine Ecosystem Branch of the Division of Environmental Policy Implementation, the Division for Environmental Law and Convention, and the Division for Early Warning and Assessment, in addition to UNEP's collaborating centres such as World Conservation Monitoring Centre (WCMC) and GRID-Arendal. UNEP will fully utilize its network of Regional Seas programmes and relevant projects for the implementation of pilot activities and sharing of lessons learnt.

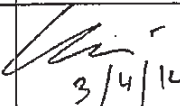

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.

Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
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