PROJECT IDENTIFICATION FORM (PIF)
PROJECT TYPE:
TYPE OF TRUST FUND:
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PART I: PROJECT IDENTIFICATION

Project Title:	**Enabling transboundary cooperation for sustainable management of the Indonesian Seas**		
Country(ies):	Indonesia, Timor -Leste	**GEF Project ID:**[1]	5768
GEF Agency(ies):	FAO	**GEF Agency Project ID:**	628979
Other Executing Partner(s):	- Ministry of Marine Affairs and Fisheries (MoMAF) of Indonesia -Ministry of Agriculture and Fisheries (MAF) of Timor Leste	**Submission Date:**	March 25, 2014
GEF Focal Area (s):	International Waters	**Project Duration (months):**	48
Name of parent program (if applicable): • For SFM/REDD+ ☐ • For SGP ☐ • For PPP ☐		**Agency Fee ($):**	380,000

A. FOCAL AREA STRATEGY FRAMEWORK[2]:

Focal Area Objectives	Trust Fund	Indicative Grant Amount ($)	Indicative Co-Financing ($)
IW 3: Support foundational capacity building, portfolio learning, and targeted research needs for joint, ecosystem-based management of trans-boundary water systems	GEFTF	4,000,000	$15,500,000
Total project costs		4,000,000	$15,500,000

B. PROJECT FRAMEWORK

Project Objective: Facilitate the implementation of ecosystem approaches to fisheries and coastal management (EAFM/EBM) in the Indonesian Seas Large Marine Ecosystem (ISLME) to ensure the sustainable development of ecosystem resources through a TDA/SAP

Project Component	Grant Type[3]	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount ($)	Indicative Co-financing ($)
Component 1: Identifying and addressing threats to the marine environment including unsustainable	TA	1.1) Regional agreement on the transboundary threats and their root causes to marine environment (including fisheries) in the ISLME	1.1.1) Transboundary threats to marine resources and ecosystem and their root causes are identified (including: land-based and marine pollution from tourism, aquaculture, coastal	GEFTF	$1,900,000	$5,000,000

[1] Project ID number will be assigned by GEFSEC.
[2] Refer to the reference attached on the Focal Area Results Framework and LDCF/SCCF Framework when completing table A.
[3] TA includes capacity building and research and development.

fisheries			industry etc.) 1.1.2) Benefits and services derived from the marine ecosystem are assessed and valued.. 1.1.3) Significant socio-economic drivers and trends that create environmental pressure on ecosystem resources and services in the ISLME region are assessed. 1.1.4 The governance and institutional structures, including dependent stakeholders, which are relevant to the management of fisheries and ISLME ecosystem are identified and analyzed. 1.1.5) A regional TDA incorporating an identification of the key transboundary issues (including potential climate change), root causes, governance and stakeholder analysis is accepted and adopted by national Inter-Ministerial Committees.			
		1.2) An agreed endorsed Strategic Action Program to ensure the long-term institutional and financial sustainability of the Indonesian Seas LME (ISLME) fisheries and marine ecosystem	1.2.1) The vision and the ecosystem quality objectives for the ISLME, together with the institutional arrangements for cooperation on monitoring and management of natural marine resources in the ISLME are developed.. 1.2.2) Management actions and priorities to mitigate identified transboundary issues at the local, national and regional levels are agreed			

			1.2.3)Financial and institutional requirements to support and sustain the SAP are identified 1.2.4) A SAPfor the ISLME is completed and endorsed by the two governments at Ministerial level.			
Component 2: Strengthening capacity for regional and sub-regional cooperation in marine resources management		2.1) EAF/EBM approaches utilized for sustainable marine resource management	2.1.1) Staff capacity developed to conduct fisheries management planning consistent with EAF and within a broader EBM framework 2.1.2) Strengthened capacities in multisectoral (EBM) planning through pilots at province level 2.1.3) Mainstreaming of capacity development in EAF and EBM through development of relevant courses at universities and training institutions 2.1.4 Artificial reef development is reviewed and policy advice provided	GEFTF	$1,140,000	$7,000,000
		2.2) Regional and national governance of fisheries and natural resource management (including legal and institutional frameworks) strengthened	2.2.1) Capacity needs assessment (Institutional analysis) and strengthening of relevant institutions needed for fisheries and coastal natural resource management 2.2.2) Institutional support to advise on actions to be taken to combat IUU fishing and unsustainable use of coastal natural resources. 2.2.3) 8 training sessions in Port State Controls for fishing vessels			
		2.3) Environmental	2.3.1) 6 training			

		threats from poorly planned aquaculture development are mitigated through development of advisory and planning tools, communicated to the aquaculture industry and provincial planning bodies in the ISLME	workshops for planning of sustainable aquaculture development through Ecosystem Approach to Aquaculture and implementation of blue growth concepts 2.3.2) Existing, unsustainable aquaculture practices are identified and advice on mitigation of environmental impacts is provided			
		2.4) Development policy is adjusted to open innovative opportunities for alternative livelihoods and blue growth development of coastal communities, especially those dependent upon fishing for their livelihoods.	2.4.1) Regional stocktaking of successful lessons of other initiatives in the ISLME for prospective or innovative alternative livelihoods (including responsibly managed aquaculture) is conducted. 2.4.2) Policy advice for sustainable small-scale fisheries, is developed and communicated 2.4.3) Options to reduce vulnerability of coastal communities to climate variation in pilot areas are identified and communicated 2.4.4) 6 training sessions in gender mainstreaming for alternative livelihoods			
		2.5 Pilot projects demonstrate improved EAF/EBM approaches for fisheries and aquaculture	2.5.1) 3 pilot fishery management plans developed and applied to the management of regional/sub-regional fishing areas (stocks). 2.5.2) 3 pilot plans for aquaculture development and management in 2 pilot province(s) where mariculture has strong potential to contribute to blue growth (e.g. Tomini Bay, NTB			

			Lombok, or NTT, North Sulawesi - north coast Timor-Leste) 2.5.3) 3 Existing artificial reef sites evaluated and subject to management improvement plans			
Component 3: Co-ordination with regional information networks, monitoring of project impacts, and dissemination and exchange of information		3.1) Strengthened cooperation between, fisheries, marine science and natural resource monitoring networks, to contribute to ecosystem management of the ISLME	3.1.1) Improved monitoring and reporting of IUU and unsustainable fishing issues in the ISLME supports cooperation with neighbouring LMEs & countries to combat IUU fishing 3.1.2) Coastal environmental remote sensing data generated by initiatives and projects in the ISLME region is used to monitor threats to fisheries and coastal resources and inform planning pilots (INDESO) 3.1.3) Institutional linking provides oceanographic information relating to large scale processes, and climate variability to inform the TDA and informs planning pilots (INAGOOS)	GEFTF	769,524	$2,750,000
		3.2) Regional ISLME knowledge platform developed to share information between stakeholders (including the global LME community)	3.2.1) Project monitoring program established and under implementation, including mid-term and final reviews 3.2.2) Project results and "lessons learned" disseminated. 3.2.3) Communication and information management for TDA and SAP established 3.2.4) 8 Policy communications, based on component 2 outputs, developed and communicated			

			3.2.5) 1% of budget allocated to regional knowledge sharing via cooperation with neighbouring LMEs and cooperation with IW:LEARN activities			
				Sub-Total	3,809,524	14,750,000
				Project management Cost (PMC)[4]	190,476	750,000
				Total project costs[4]	4,000,000	15,500,000

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
National Government	Government of Indonesia	Unknown at this stage	10,000,000
National Government	Government of Timor -Leste	In-kind	500,000
GEF Agency	FAO	Cash	5,000,000
Total Co-financing			15,500,000

D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA(S) AND COUNTRY[1]

GEF Agency	Type of Trust Funds	Focal Area	Country Name/ Global	Grant Amount ($) (a)	Agency Fee ($) (b)[2]	Total ($) c=a+b
FAO	GEF TF	International Waters	Indonesia, Timor-Leste	4,000,000	380,000	4,380,000
Total Grant Resources						4,380,000

[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. PMC amount from Table B should be included proportionately to the focal area amount in this table

[2] Indicate fees related to this project

E. PROJECT PREPARATION GRANT (PPG)[5]

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	Amount Requested ($)	Agency Fee for PPG ($)[6]
• No PPG required		
• (Up to) $50k for projects up to & including $ 1 million		
• (Up to) $100k for projects up to & including $ 3 million		
• (Up to) $150k for projects up to & including $ 6 million	$150,000	$14,250
• (Up to) $200k for projects up to & including $ 10 million		
• (Up to) $300k for projects above $ 10 million		

PPG AMOUNT REQUESTED BY AGENCY (IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY

[4] To be calculated as percent of subtotal

[5] On exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

[6] PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

Type of Trust Funds	GEF Agency	Focal Area	Country Name/ Global	PPG ($) (a)	Agency Fee ($) (b)	Total ($) c=a+b
GEF TF	FAO	International Waters	Indonesia, Timor -Leste	150,000	14,250	164,250
Total Grant Resources						**164,250**

PART II: PROJECT JUSTIFICATION[7]

A. PROJECT OVERVIEW

A.1. Project description. Briefly describe the project, including: 1) the global environmental problems, root causes and barriers that need to be addressed; 2) baseline scenario and any associates baseline projects; 3) the proposed alternative scenario, with a brief description of expected outcomes and components and the project; 4) incremental cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing; 5) global benefits (GEFTF, NPTF) and adaptation benefits (LDCF/SCCF); 6) innovativeness, sustainability and potential for scaling up.

A.1.1 Global environmental problems root causes and barriers that need to be addressed:

Background

The Indonesian Sea LME (ISLME) is situated at the confluence of the Pacific and Indian Oceans, and is bordered by Indonesia and Timor-Leste (the significant majority of the ISLME falls within Indonesian territory). It covers an area of 2.3 million km², of which 1.49% is protected, and contains 9.98% and 0.75% of the world's coral reefs and sea mounts, respectively. The Indonesian Sea LME is considered a Class I ecosystem with high productivity. Seasonal monsoons, during which ocean currents reverse directions, exert a significant influence on the LME. The seas around Indonesia have complex and rapid currents owing to energetic tides over rough topography and also owing to the Indonesian Throughflow, which is the flow and exchange of oceanic water between the Pacific and Indian Oceans. The ISLME and its fisheries are also strongly influenced by the ENSO cycles.

The region is located in the Indo-West Pacific centre of biodiversity, supporting mega- diversity with more than 500 species of reef-building corals, 2,500 species of marine fish, 47 species of mangroves and 13 species of seagrasses. The pelagic waters are an equally important habitat, supporting high fishery productivity and biodiversity of large and small migratory marine species. These species range from food fish to migratory long-lived ETPs such as cetaceans (including the blue, fin and humpback whales), turtles and shark.

The fisheries of the Indonesian Sea LME are complex and diverse, reflecting the region's extraordinarily heterogeneous geography and species richness. Based on Indonesia's fishery reports from 2011, catches in this LME totalled about 2.4 million tonnes. Major species caught in the LME include tuna, sardines, anchovy, mackerel, as well as a range of reef fishes. Reef fisheries are vital to subsistence fishers and their families in the region but are also important in supplying high value products for expanding international, national and local markets. Aquaculture of shrimps in coastal ponds has also increased rapidly during the last two decades in Indonesia.

In Indonesia coastal and marine industries, including oil and gas production, transportation, fisheries and tourism, account for 25% of the GDP, and employ more than 15% of Indonesia's workforce. Approximately 200 million people live in the ISLME region and this is expected to double by 2035. Subsistence farming and fishing are the major activities of large numbers of people outside large urban centres. There are an estimated 6,000 coastal communities which are directly dependent on the sea as their primary source of food and income. Small-scale artisanal fishing is prevalent throughout the ISLME region. There are over 900,000 fishing households, and about 2.6 million fishermen .There are approximately 294 000 fishing vessels, of which about 43 % are motorized outboard, 30 % motorised inboard and 25 % non-motorized.

Reliable data and information on the fishery resources of Timor-Leste are scant, which constrains effective fishery management planning. Fishery records prior to independence are highly aggregated and do not provide useful information about the country's fishery and its status. There are very limited information sources on other marine environmental resources, although some effort has been made on

[7] Part II should not be longer than 5 pages

the southern coastline through the ATSEA project. Further institutional strengthening and capacity development to put in place basic environmental monitoring, including fisheries data collection are important long term processes to initiate. Timor would benefit greatly from access to remote sensing and monitoring data generated through ongoing programmes in the region (e.g. coastal land and nearshore environmental data). Capacity to use such data requires training and development. There remain few options for alternative livelihoods in the coastal areas of Timor Leste, those which are currently undertaken may be environmental unsustainable and damaging (e.g. salt production using mangrove wood). There is some potential to explore alternatives, based on experiences from adjoining areas in Indonesia and FAO coastal livelihoods programme work in Timor Leste and Indonesia.

The fisheries of timor Leste are characterized as artisanal, with vast majority of fishing vessels being small, wooden, dugout canoes. Based on the data of the first census of fishers and boats, for a total population of around one million inhabitants, Timor-Leste has 4,723 registered sea fishers who operate in 3,016 boats. This data does not consider fish traders and other fish workers; such as fish processors, inshore fishers and reef gleaners. Most of the fishing fleet (62.4%) is comprised of small non-motorized wooden canoes powered by sail and paddles. While most motorized canoes are equipped with drifting gillnets for small pelagic fish species, hand-lines and bottom long lines, the smaller paddle canoes are equipped with hand-lines and smaller gillnets for the capture of sardines and other small pelagic fish caught within a few hundred meters of the shoreline. A large number of reef gleaners (primarily women), shellfish gatherers, divers as well as people who fish using nets from the shore, remain still unrecorded. In addition a large, but unrecorded number of people harvest shrimp from river mouths. All these groups are considered extremely vulnerable.

Although the potential annual fish catches in Timor Leste have been projected to 116 000 tonnes, actual annual estimated catches are below 10 000 tonnes. This does not include losses from IUU fishing, which were estimated in 2003 to be approximately USD 20 million. Mitigation of this could be achieved by introducing income from access licenses of approximately USD 15 million and projected income from fish exports a further USD 5 million. However, ensuring compliance of foreign fishing under access agreements remains a serious challenge with little capacity to monitor activities. As a result, few foreign licenses are issued and IUU activities within the EEZ remain difficult to quantify. This more of an issue in the ATSEA area on the south coast but would benefit from national level coordination.

Global Environmental Problem

Unsustainable fishing practices impact transboundary stocks within the ISLME and particularly into the Western Central Pacific. Transboundary, illegal fishing practices are widespread in the LME, especially with the movement of fish leaving the LME region to other adjoining areas. This is especially relevant to tunas, but also affects small pelagic and demersal fisheries. Live reef fish trade inside the region and outside the region is another transboundary impact. Overfishing effects are being observed in several of the fishery management areas of the LME. The reported catch of sharks and rays in the region is the highest in the world, fluctuating between 90,000 and 120,000 tonnes during the decade 2000 to 2010[8], with an overall decreasing trend during this period. Lack of detailed fishery catch and effort data is a serious constraint to assessing the status of these resources. There is also a need to improve management of fisheries at a more local level through the relevant fishery management areas in the LME region, as well improve compliance of Indonesia and East Timor with RFMO conservation and management measures. In particular, focus should be on addressing the use of bycatch of juvenile tunas in artisanal fixed fads in the ISLME area, which is a specific issue identified by RFMOs. Some of these issues are common to the Arafura Timor Sea area and would benefit from a harmonized approach, (e.g. IUU fishing) however other threats may no be common to both regions (e.g. FAD fishing of juvenile tuna).

Coastal livelihoods and the rural industries in the ISLME area may have a range of impacts on the coastal environment and adjacent marine areas. Typical threats the ISLME are sediments and

[8] Fischer, J, Erikstein, K, D'Offay, B., Guggisberg, S., Barone, M. 2013. Review of the implementation of the international plan of action for the conservation and management of sharks. FAO Fisheries and Aquaculture Circular No. 1076. Rome, FAO, 120 pp.

suspended solids which arise from erosion due to coastal forest removal and coastal land use changes. Clearance of coastal areas and coastal habitats for aquaculture development is occurring, but remains largely unplanned and its impacts on the marine environment unassessed. For example, mangrove areas, used for shrimp aquaculture, are important nursery grounds for marine coastal resources, the sustainability of which may be severely impacted by these activities. There is clear potential for aquaculture development in the ISLME and this has the opportunity to contribute to blue growth and enhanced livelihoods in the ISLME area. However, this resumes that promotion and development of aquaculture will be undertaken in a responsible and strategic manner. This has seldom been the case and there is an opportunity to develop capacity in provincial governments throughout the ISLME to use aquaculture development planning approaches that will minimize negative environmental impacts of unsustainable aquaculture development, which may also have important repercussions on the sustainability of capture fisheries; while still capturing the income generating and livelihood opportunities offered by aquaculture.

Urban expansion and industrialization have resulted in coastal pollution from domestic, agricultural and industrial wastes in the Indonesian Sea LME. Pollution in the ISLME is driven from point sources such as urban/industrial hotspots, as well as runoff from mining (mercury). Larger scale impacts arise from broadscale deforestation. Nutrient runoff and eutrophication arise from coastal population centres, especially small towns and increasingly tourism centres. Industrial forms of water pollution are concentrated in the major urban centres, primarily the large cities of northern Java. Nutrient and solids loadings entering the marine environment rapidly transform the systems and can result in significant impacts on biodiversity, ecosystem quality and coral reef and seagrass ecologies in particular. Oil and gas exploration has unquantified impacts on the marine environment and fisheries.

Economic developments in the ISLME areas are extremely patchy with rapid economic growth in some islands and relative stagnation and persistent poverty in others. This relates to a range of factors including natural resource exploitation, fishing ports and transportation and market routes. Increasingly, the emergence of tourism is a strong driver of growth, but brings a suite of threats to the marine ecosystem. Rapid coastal development of tourism may outstrip waste management capacity, and the demand for seafood and other marine products may drive unsustainable exploitation. Addressing this is largely an issue for local government and coastal management planning but communication and awareness raising of the broader ecosystem impacts can form the basis of more ecosystem-friendly tourism practices.

The issue of artificial reef development in the ISLME region is an emerging area of interest for both fisheries management, resource enhancement as well as promotion of marine tourism (e.g. diving). Artificial reefs may be constructed for a range of materials ranging from pre-constructed steel reinforced structures to sunken vehicles and aggregations of rubber tyres. Such activities may be little more than dumping of refuse and contribute little or nothing to enhancement of marine production. Reviewing the procedures for establishing artificial reefs, and promoting the use of the UNEP/IMO guidelines will contribute to greater environmental benefits from this type of scheme. A potential emerging area is the decommissioning of oil and gas structures. These also have the potential to impact marine environment and fisheries. Whilst these may be relatively slight in the situation where structures are removed from the sea, there is the potential for sinking of the structures as artificial reefs which may be effectively, disguised marine dumping. Opening this dialogue in the ISLME will be a proactive approach to the future scenario as these structures are becoming obsolescent. In some cases the structures are already abandoned, but have not yet been removed. The territorial seas of the ISLME means that some of the international agreements may have less impact on the decommissioning process and this warrants some preparatory work to ensure mitigation of possible detrimental effects.

Causes

Open access fisheries, poor Monitoring Control and Surveillance (MCS) and the inability to manage large numbers of fishing vessels spread across huge geographical distances typify the ISLME as well as the adjacent Arafura Timor sea. The lack of fishery management plans in the fisheries management areas of the ISLME and poor compliance further constrain sustainable fishery resource management. Whilst the Arafura-Timor fishery management area (FMA) is the focus of the fishery management plan for Indonesia, the FMAs in the ISLME have yet to have been initiated.

Great concerns exist due to serious discrepancies in fisheries data and a potentially significant level of Illegal, Unreported and Unregulated (IUU) catches. Estimates of IUU catches do not exist but a study carried out in the neighboring Arafura Sea show that reported catches are between 0.9 to about 20% of the real estimated catches[9]. Transboundary threats of IUU fishing within the region, particularly from fishing operators flagged in neighbouring countries, are persistent and documented impact on the fisheries of the ISLME. Much of the IUU catch of the Arafura-Timor Sea is transshipped or transported through the ISLME area. The permeability of the region to fishing vessels from throughout East and southeast Asia means this area sits at the heart of uncontrolled fishing activity by vessels which though nominally flagged to the ISLME countries, have beneficial ownership outside the region and engage in substantial illegal transshipping and other IUU related fishing activity.

More effective coordination of monitoring control and surveillance activities are needed to enhance Indonesia's ability to target IUU issues and the vessels that perpetrate this. Broader regional cooperation on IUU through the Regional Plan of Actions (RPOA) on IUU, and particularly with the ATSEA programme, will enable dialogue on the issues with the flag countries of the vessels concerned. The IUU activity is also transboundary to contiguous LME areas (South China Sea, Sulu Celebes, Arafura Timor, Bay of Bengal) and engagement with the other LMEs in communicating these transboundary issues is required. Training in management of ports to control IUU fishing activity is also needed.

The development of aquaculture and other natural resource based activities, both in coastal land areas as well as on the water (e.g. salt production, fish cages, seaweed mariculture) have the potential to contribute to local economies and livelihoods. This is highly attractive in large archipelagic areas such as ISLME , where there are few alternative livelihoods to fishing and limited opportunities for income generation. This economic potential presumes that the development takes place in manner that does not discount environmental costs. Habitat degradation, localized pollution and eutrophication, conflict with other resource users are common features of poorly, or unplanned development. Typically zoning and regulatory frameworks are not in place to limit these impacts, and local government institutions responsible for management are ill-equipped to resolve the issues that arise. Information systems that are capable of supporting coastal and marine spatial planning exist in the region, but are poorly linked to practical on the ground application, particularly in a form which might support planning by local government. Capacity building in effective zoning and planning of development, informed by geospatial information, and linked to better production practices and conflict resolution mechanisms, can secure the benefits and opportunities presented by mariculture and other natural resource based coastal livelihoods, without the attendant environmental costs.

Barriers

Most of the ISLME lies within the archipelagic waters of Indonesia. Marine governance in Indonesia is very complex as there are three levels of government with marine jurisdictions (district, provincial and national). The need for enhanced development policies that reduce fishing pressure and promote alternative livelihoods is needed. Fisheries management and planning at the sub-national levels is typically the purview of local government, yet capacity to develop sound fisheries management plans is limited. Capacity development in coastal development planning, particularly for natural resource-based activities such as mariculture is also urgently required. Initiating a programme of capacity building in fishery management and coastal development planning (using ecosystem approaches to management) will enable management plans for to be developed, that take into account habitats, environment and social considerations.

All the above stressors are impacting the marine environment with compounded effects that are poorly understood and hardly managed, against a background of climate change, increasing seawater temperatures and acidity. Sustainable utilization of marine and coastal resources and habitats is key to enhancing the resilience of these ecosystems to the threats of climate change. Making appropriate trade-offs through ecosystem approaches to management, requires an understanding of the stressors and drivers, however, it must also be informed by an appreciation of the relative costs and benefits of the

[9] Wagey,G.A., Nurhakim, S., Nikijuluw, V.P.H., Badrudin, Pitcher, T.J. 2009. A study of Illegal, Unreported and Unregulated (IUU) fishing in the Arafura Sea, Indonesia. Research Centre for Capture Fisheries Agency for Marine and Fisheries research, Ministry of marine Affaires and Fisheries, 53 pp.

trade-offs being proposed. This calls for effective valuation of the ecosystem services under consideration.

A.1.2: The baseline scenario and any associated baseline projects

A comprehensive analysis leading to an agreed plan on fisheries and environmental management has not been undertaken in this LME. The ISLME lies largely within the territorial waters of Indonesia and also part of the Timor-Leste EEZ. This area is sometimes called the doughnut hole as it lies at the interface of the three large fisheries areas of the western central Pacific, Indian Ocean and South China Sea. Whilst the waters of the ISLME are all territorial or EEZ (there is no high seas area), the fishery management areas (FMAs) currently lack effective fishery management plans. The Arafurua-Timor sea FMA of Indonesia is currently undergoing a management planning process and this will be a model to build similar plans in the FMAs of the ISLME. Timor-Leste does not yet have a comprehensive fishery policy or management plan for the national waters and this would be a major focus of the ISLME in collaboration with ATSEA. Management of coastal development is also under the purview of local authorities. New economic activities that rely on coastal natural resources, or which have the potential to impact the marine environment are often initiated with inadequate understanding of their potential impacts.

The decentralized management authority of sub-national government structures introduces additional complexity with planning and in making sure that plans are developed with adequate stakeholder engagement.

These institutional issues lead to a situation characterized by:

- Fragmented information and data sharing networks for oceanographic and environmental monitoring and the monitoring of fisheries and fishing activities.
- Poor coordinating mechanisms to address governance, policy development and knowledge sharing for fisheries and environmental concerns.
- Lack of effective management planning for key productive marine resources (including land based activities that may impact the marine ecosystem)
- Limited human capacity and resourcing for management planning, (particularly at the sub-national level).
- Inadequate capacity to enforce regulations

The result is degraded fisheries, with consequent impacts on livelihoods and marine and coastal ecosystems. This project will initiate the capacity building and planning process to develop fishery management plans for a number of FMAs in the ISLME and there is a need to ensure that these are practical and take into account ecosystem considerations. The project will also initiate planning processes for alternative livelihood and economic developments (including mariculture) using similar ecosystem –based planning approaches.

The ISLME lies within the coral triangle and is the location for pilot initiatives under a range of programmes and projects linked to marine environment and conservation (although very few with explicit fishery management mandates and mostly with a coastal and nearshore geographical focus). As such, the ISLME region has existing baseline activities that will complement the ISLME project activities, especially those related to broader scale development to of MPAs, coastal zone planning and sustainable coastal livelihoods.

CTI Arafura and Timor Seas Ecosystem Action Programme (ATSEA) - under the Coral Triangle Initiative. Includes Indonesia, Papua New Guinea and Timor-Leste. It is implemented by UNDP and executed by UNOPS together with national agencies, i.e. the Ministry of Marine Affairs and Fisheries, Indonesia, the Department of Environment and Water Resource (DEW) Australia, and the Department of Agriculture, Fisheries and Forestry (DAFF) (Timor-Leste). The project aims at ensuring the integrated, cooperative, sustainable, ecosystem-based management and use of the living coastal and marine resources, including fisheries and biodiversity, of the Arafura and Timor Seas region, through the formulation, inter-governmental adoption and initial implementation of a Regional Strategic Action Programme (SAP) and National Action Programs (NAPs). The ATSEA program is a vital forum for

bringing the littoral nations of the Arafura and Timor Seas to work on the transboundary marine issues, including management of the living coastal and marine resources of the Arafura and Timor seas, through the formulation, inter-governmental adoption, and initial implementation of a regional SAP. The TDA formed the basis for a SAP that was prepared in 2013. The TDA identified the following transboundary environmental concerns: (1) Unsustainable fisheries and decline and loss of living coastal and marine resources; (2) Decline and loss of biodiversity and key marine species; (3) Modification, degradation and loss of coastal and marine habitats; (4) Marine and land-based pollution; and (5) Impacts of climate change. The regional SAP of ATSEA has important baselines for the ISLME and studies undertaken by ATSEA indicate transboundary threats and issues that are directly related to ISLME. The ATSEA project, a major collaborative partner and a strong coordination and collaboration approach will be developed at RCU and country levels to ensure harmonization of approaches and sharing of experiences and knowledge.

CTI West Pacific-East Asia Oceanic Fisheries Management Project (OFMP II) - under the Coral Triangle Initiative. To strengthen national capacities and international cooperation on priority transboundary concerns relating to the conservation and management of highly migratory fish stocks in the west Pacific Ocean and east Asia (Indonesia, Philippines and Vietnam). A new phase of the project started in 2013, with UNDP as implementing agency and the Western and Central Pacific Fisheries Commission (WCPFC) as executing agency. Main project components include strengthening regional governance for building regional and national adaptive capacity of participating countries in the management of highly migratory fish stocks; implementation of policy, institutional and fishery management reform (including Ecosystem Approach to Fisheries Management) and knowledge sharing on highly migratory fish stocks. There are some complementarities with OFMP II in terms of national scale monitoring IUU fishing activities and data collection of tuna catches, some of which may take place within the ISLME region (in the case of Indonesia,. Timor Leste is not part of this project and IUU monitoring activities under ISLME may contribute peripherally to the objectives of OFMP II). The fishery management plans developed under the ISLME will not cover highly migratory species.

CTI Strategies for Fisheries Bycatch Management (REBYC II CTI). Aquatic resources and stocks protected, and biodiversity maintained and enhanced in the Coral Triangle/South China Sea (SCS) region through application of strategies and technologies for fisheries bycatch management. Covers Indonesia, Papua New Guinea, Philippines, Thailand and Viet Nam with the Food and Agriculture Organization (FAO) as Lead Implementing Agency and the Southeast Asian Fisheries Development Centre (SEAFDEC) as executing agency. The project focus in Indonesia is in the Timor Arafura Sea and therefore does not overlap geographically with ISLME. However, capacity building activities under the REBYC II and the links between REBYC II, BOBLME , FAO and SEAFDEC (the executing partners of REBYCII) will enable access to regional training courses in fishery management and capacity development opportunities. The REBYC II project will be an important partner and synergies will be established based on lessons learned from the development of the fisheries management plans for the Timor-Arafura Sea (noting that this focuses on shrimp fisheries which are not common in the ISLME area).

The LME-EA Scaling Up Partnership Investments for Sustainable Development of the Large Marine Ecosystems of East Asia and their Coasts (PROGRAM). The project includes many countries of East Asia (Cambodia, China, Korea Democratic People's Republic of, Korea Republic of, Indonesia, Japan, Lao People's Democratic Republic, Philippines, Singapore, Timor-Leste, and Viet Nam) and is an essential component of the early implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA). The objectives of the project are to support country and stakeholder momentum towards full implementation of the SDS-SEAm in priority areas that include, among others,

- Developing and implementing national policies and action plans for sustainable coastal and ocean development in at least 70% of PEMSEA countries by 2015;
- Scaling up ICM programmes at the national and sub-national levels, targeting coverage of at least 20% of the region's coastlines by 2015, including reduction of vulnerability from natural hazards and improved health of human beings, ecosystems and the natural resource base;

- Building up and making the best use of regional intellectual capital and resources for integrated management and sustainable use of the environment and resources, through stakeholder participation and networking, as well as scientific, technical and information support; and
- Establishing innovative financing mechanisms to help countries achieve time-bound wastewater emission targets, including a revolving fund to leverage private sector investment and public-private partnerships for pollution control in secondary cities and in industrial and agricultural enterprises in regional pollution hotspots, in collaboration with World Bank, participating national governments and the private sector.

ICM demonstration projects have been established in all participating countries in order to encourage local governments to adopt the comprehensive integrated management framework and process. The ISLME project can build on experiences of integrated management done through this programme.

CTI Coastal and Marine Resources Management in the Coral Triangle: Southeast Asia under Coral Triangle Initiative. This project includes countries of coral Triangle, i.e. Malaysia, Indonesia, Philippines, Solomon Islands, Timor-Leste and Papua New Guinea. Its main objective is to promote the long-term conservation and sustainable management of coastal and marine resources in the Sulu-Sulawesi Marine Ecoregion (SSME) Priority Seascape in the Coral Triangle, by strengthening integrated and ecosystem-based resources management. The ISLME will build on valuable experiences made through this project in broader scale development of MPAs and coastal zone planning, particularly in the Sulu-Celebes area and the Bird's Head Seascape. Specific cooperative linkages with Sulu-Celebes Sustainable Fisheries Management Project on the management of small pelagic fisheries are a particular priority

Coral Reef Rehabilitation and Management: Coral Triangle Initiative (COREMAP-CTI) Project. The COREMAP–CTI project aims to manage coral reef resources, associated ecosystems and biodiversity in a sustainable manner for the welfare of coastal communities. The Project will align with Indonesia's National Plan of Action (NPOA) for the Coral Triangle Initiative(CTI). The project will have four outputs: (i) Strengthened coral reef management and institutions;(ii) Improved ecosystem based resources management; (iii) Improved and sustainable marine-based livelihoods; and (iv) project management. The sub projects to be assessed are limited to: (i) MPA management effectiveness; (ii)ecotourism; and (iii) livelihood. The typical interventions/infrastructures in this assessment include, among others, MPA office and facilities, marina and facilities, mooring buoys, jetty, turtle hatchery, fish cage culture, fish processing improvement, trading center & handicraft shop, gazebo, surveillance post, and information center. Also livelihood activities related to mariculture like grouper and seaweeds, pond culture like catfish and fish processing activities.

Science for the Protection of Indonesian Coastal Ecosystems (SPICE III). The overarching goal of the SPICE Program is to address the scientific, social and economic issues related to the management of the Indonesian coastal ecosystems and their resources. In addition to strengthening the existing scientific data base on coastal ecosystems, the program promotes capacity and infrastructure building in the marine sector in Indonesia and Germany. The Third phase of SPICE will cover: Impacts of marine pollution on biodiversity and coastal livelihoods; Carbon sequestration in the Indonesian Seas and its global significance; Understanding and managing the resilience of coral reefs and associated social systems; Terrestrial influences on mangrove ecology and sustainability of their resources; Climate versus anthropogenic forcing of Late Holocene environmental change affecting Indonesian marine, coastal, and terrestrial ecosystems; Potentials of ocean renewable energy in the Indonesian Seas.

PEMSEA. The Partnerships in the Environmental Management for the Seas of East Asia (PEMSEA) is a partnership arrangement involving various stakeholders of the Seas of East Asia, including national and local governments, civil society, the private sector, research and education institutions, communities, international agencies, regional programmes, financial institutions and donors. It is also the regional coordinating mechanism for the implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA). In Timor-Leste the PEMSEA works through an inter-ministerial core team

formed by the Directorate of Fisheries and Aquaculture, the Directorate of Forestry, Environment, Natural Resources, Natural Disasters, Public Works, Water and Sanitation, Water Management and the Ministry of State Administration. Despite coordination is good, the PEMSEA faces regular financial constraints as not all National Directorates involved receive their share of the budget for PEMSEA implementation from state budget. A new action plan 2014-2019 has been recently drafted. PEMSEA was the promoter of successful coastal livelihoods in Atauro with the introduction of seaweed farming. It has been reported that PEMSEA has submitted a project on Sustainable Coastal and Marine management to GEF, however, few information was provided on details. A new plan has been drafted (still not available) for the period 2014-2019.

The Bay of Bengal Large Marine Ecosystem (BOBLME) project covers all countries bordering the Bay of Bengal, i.e. Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka and Thailand. Implementing agency is FAO. Executing agencies are Indonesia, Malaysia, the Bay of Bengal Programme (BOBP) and FAO. The TDA phase is about to end and a new project document covering SAP implementation is being finalized. Key areas of work include coastal/marine natural resources management and sustainable use (community-based management, policy harmonization, fishery assessments and EAF management plans); collaborative critical habitat management; improved understanding and predictability of the BOBLME Environment (large-scale processes and dynamics affecting the BOBLME, use of MPAs to conserve regional fish stocks, regional cooperation with regional and global assessment and monitoring programmes); maintenance of ecosystem health and management of pollution (effective ecosystem indicator framework, regional approach to identifying and managing important coastal pollution issues).

This project and experience made so far are particularly important in the context of ISLME implementation for being fisheries centered (but also including other stressors to the marine environment) and having made important experiences in the implementation of the Ecosystem Approach to Fisheries (EAF) and cooperated with regional partners in developing a regional training course for capacity building in EAFM.

Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand. This project, that includes Cambodia, Indonesia, Malaysia, Philippines, Thailand and Viet Nam, aims at operating and expanding the network of fisheries refugia in the South China Sea and Gulf of Thailand for the improved management of fisheries and critical marine habitats linkages in order to achieve the medium and longer-term goals of the fisheries component of the Strategic Action Programme for the South China Sea. It is led by UNEP and implemented by SEAFDEC. Identification and protection of critical habitats for fishery resources is a priority to support sustainability of fishery resources and experiences made through this project will be sought as part of developing integrated management plans for the ISLME.

Contributions to the baseline also include global projects (e.g. the TWAP and its support to LMEs, the GEF LME/ICM-COP, etc.) and other GEF LME fisheries projects from other regions (e.g. the CLME which has recently successfully delivered a SAP). The baseline is further supported by the significant growth in interest in applying ecosystem service valuation for management decision making, that follows a theme for the recent GEF IW Conference in Barbados, and utilizing available data and methodology from a wide range of organizations (e.g. TEEB).

Most of the above projects/programmes cover important aspects relevant to the sustainable use of the marine environment and experiences and lessons learnt will be an important foundation for the ISLME. None of the above initiative, however, covers the ISLME in a coordinated and integrated way and this project will therefore fill an important geographic gap in relation to ongoing initiatives related to the sustainable management of coastal and marine ecosystems in South-East Asia.

Co-financing

Preliminary co-financing identified will be provided by: (i) the Ministry of Agriculture and Fisheries of Timor Leste ($500,000 from the Agriculture Sector Medium Term Investment Plan), (ii) the Government of Indonesia ($10,000,000) via the Ministry of Marine Affairs and Fisheries and the Ministry of

Environment, and (iii) FAO ($5,000,000) via the "Blue Carbon for Blue Growth" project and the "Blue Economy Programme in Lombok Island" project.

A.1.3: The proposed alternative scenario, with a brief description of expected outcomes and components of the project:

The project will develop a sustainable programme for cooperation on anthropogenic and climatic threats to fisheries and the broader marine ecosystem in the ISLME endorsed and adopted by the participating countries that will also strengthen communities' livelihoods and engagement in fisheries management. The development and implementation of the SAP will be informed by pilot activities and networking co-ordination with ongoing initiatives within the region that are relevant to the marine ecosystem.

The project will also use an 'innovative' approach by utilizing ecosystem services data to support in management decisions and planning that are undertaken as the local management pilots. This project provides the opportunity to validate ecosystem service valuation approaches in the pilots and would provide valuable experiences for use elsewhere in the project and by other GEF IW projects. In particular this will contribute to the approaches of ATSEA and PEMSEA programmes which do not have this core valuation activity.

The overall project objective is to: To develop and agree a SAP based on a TDA, for the ISLME leading to reduced stress on the marine resources and ecosystem through improved understanding of LME processes and the development of sustainable ecosystem-based management actions, which also promote increased resilience to climate variability and change.

The project will be undertaken through three interlinked components supported by cross-cutting activities on project management, including monitoring and evaluation (M&E).

Component 1: Identifying and addressing threats to the marine environment including unsustainable fisheries

The overall objective of this component is to develop and seek the endorsement of a Strategic Action Programme (SAP) that will alleviate the pressures on the marine ecosystem (Outcome 1.1). The development of the SAP will be underpinned through a detailed transboundary diagnostic analysis (TDA) that will identify both transboundary and shared threats to the marine ecosystem within the ISLME (Outcome 1.2). It will further identify common threats linked to adjacent large marine ecosystems such as Sulu-Celebes and Arafura-Timor, in particular transboundary IUU.

Outcome 1.1 Regional agreement on the transboundary threats and their root causes to marine environment (including fisheries) in the ISLME

This will be achieved through the following activities and outputs:

- A Transboundary Diagnostic Analysis (TDA) will be produced to identify and assess transboundary ecosystem threats to habitats and resources will be adopted by national Inter-Ministerial Committees. The TDA will also cover the socio-economic and governance contexts to proposed improvements and be used as a basis for developing a Strategic Action Programme (SAP) to address the identified transboundary and shared threats. The TDA will be supported by a detailed Causal Chain analysis that will assist with the identification of the root causes of the transboundary problems identified in the ISLME. The TDA will address issues that threaten the regional marine habitat, including:
    - Assessment of the marine ecosystem (including fish diversity and stocks, seagrasses, mangroves, corals, etc.) and the ecosystem services (and value) that the marine ecosystem provides;
    - Assessment of environmental stressors on the marine environment from different

sectors (including, pollution from oil & gas exploitation, urban discharges, forestry, agriculture, tourism, and other marine activities including shipping, fishing and fishing methods, etc.)

- Assessment of potential climate change impacts on the ISLME region;
- Demographic and societal drivers and changes in the region;
- Institutional arrangements and capacity development needs for planning, management and governance of natural resources in the marine ecosystem and associated coastal lands

Outcome 1.2 An agreed Strategic Action Program to ensure the long-term institutional and financial sustainability of the Indonesian Seas LME.

This will be achieved through the following activities and outputs:

- The project will develop a Strategic Action Program (that responds to the key transboundary problems and the causal chains analysis conducted under the TDA) to ensure the long-term institutional and financial sustainability of the Indonesian Seas LME (ISLME) programme, including:
  - Institutional arrangements for cooperation on monitoring and management of natural resources in the ISLME are established (and sustainable).)
  - Harmonization of actions linked to other initiatives in the region or in adjacent LME areas
    - Arafura-Timor SAP (e.g. combatting IUU fishing and transboundary movements of vessels and fish; development of management plans and institutional capacity building in Timor Leste)
    - Sulu-Celebes SAP (cooperation in the approaches to the management of small pelagic fish stocks)
    - Incorporation of lessons learned and approaches to marine conservation and MPA development projects(e.g. WWF & Conservation International work in West Papua and the WWF programme on managing the live reef fish trade)
    - Harmonized EAFM training and capacity building using approaches developed by BOBLME/REBYC II and the NOAA/Coral Triangle support project
  - A financing plan for SAP implementation
  - National endorsement (at the highest levels possible) of the SAP supporting the development of corresponding national action plans and a willingness to actively pursue the implementation of the SAP.

The development of the TDA (Component 1), which is informed by the information generation, capacity building and monitoring activities under components 2 and 3, will engage a wide range of local, national and regional stakeholders from governments, private sector (including fishers) and local communities. The resulting SAP (together with implementation and financing plan) will be an important and positive sign of regional co-operation and will be the first key step towards the future implementation of the SAP leading to an improved ecosystem and livelihood security.

Component 2: Strengthening capacity for regional and sub-regional cooperation in marine resources management

The overall objective of component 2 is to support the marine ecosystem management within the ISLME

region through strengthening the capacity at multiple levels within government, local authority and communities. In particular, coordination between central government ministries and the decentralized government bodies at provincial level in the case of Indonesia. The interaction between NDFA and the Ministry of Environment will also be a focus for enhanced cooperative planning and coordination activities. This will build capabilities of staff to be able to effectively implement EAF/EBM approaches, to develop sustainable fishery management plans, responsible aquaculture development plans (consistent with EAF/EBM) and to assist regional staff with advising on sustainable alternative livelihoods. In addition the component will assist (through institutional assessments and developing specific plans to address IUU fishing) with strengthening fishery governance within the ISLME region. Through outcome 5.2 activities, stakeholders will also receive training and practical experiences within the pilot projects in developing EAF/EMB management plans and with aquaculture.

Staff at national and sub-national level will have the competency and tools available for development and monitoring of management plans.

This component will deliver five outcomes.

Outcome 2.1: National and provincial staff trained in EAF/EBM planning approaches for sustainable management of coastal and marine resources

Building capacity at the appropriate planning level in fishery management area is a critical first step to addressing fishery management in an ecosystem context. The capacity building training approach is developed through specific training (using the regional Essential Ecosystem Approach to Fisheries Management[10] training course) and placing this in the practical context of developing the pilot fishery management plans (outcome 2.5).

This will be achieved through the following activities and outputs:

- Following training, national and provincial staff capacity (in pilot provinces) is developed such that they are capable of conducting fisheries management planning within EAF framework
- Development of guidance on impacts on fisheries from artificial reefs, including those formed from the decommissioning of oil and gas structures
- 3 downscaled pilots for EAF management planning are undertaken to build capacity in at province level and demonstrate how planning can be addressed at the local level.
- The development of a cadre of EAFM trainers and increased capacity of graduates is a long term investment, mainstreaming of capacity development in EAFM in relevant courses at universities and training institutions

Outcome 2.2: Fisheries governance, including legal and institutional frameworks) strengthened

There is a need for institutional strengthening and targeted capacity building to ensure that management plans are effectively institutionalized. This may also require reform or adaptation of existing measures to combat illegal fishing, since this is one of the key issues which may undermine effective management. In doing so, the opportunities and incentives for illegal, unreported and unregulated fishing are reduced through more effective MCS, innovative use of remote sensing and tracking tools.

This will be achieved through the following activities and outputs:

- Fisheries governance weaknesses which undermine sustainable fisheries are identified and specific training and capacity building is undertaken to strengthen relevant institutions. In particular, this will strengthen institutional linkages between central fishery and environmental agencies and the provincial governance structures.

[10] http://www.apfic.org/training/eafmtraining.html

- Capacity needs assessment (Institutional analysis) and strengthening of institutions is undertaken (organizations needed for fisheries management)
- Institutional support is provided to enable ISLME countries to meet or be harmonized with the conservation and management measures of regional RFMOs (WCPFC)
- Relevant staff are trained in application of port inspections and controls for fishing vessels

Outcome 2.3: Environmental threats from poorly planned aquaculture development are mitigated through development of advisory and planning tools, communicated to the aquaculture industry and provincial planning bodies in the ISLME.

Aquaculture has the potential to deliver livelihood and economic benefits; however, these can only be realized if aquaculture development is properly planned and developed.. There are additional dimensions of conflicts with other coastal resource users and broader ecosystem impacts. Staff capacity will be developed to plan responsible aquaculture development and mitigate negative impacts of ongoing aquaculture activities using the Ecosystem Approach to Aquaculture (EAA), with effective integration into broader EBM frameworks.

This will be achieved through the following activities and outputs:

- Staff capacity developed to identify threats and mitigating actions, and to plan responsible aquaculture development using an ecosystem approach to planning.
- Revision of existing aquaculture practices to reduce environmental impacts (linkage with 2.5 aquaculture pilot projects)

Outcome 2.4: Development policy is adjusted to open innovative opportunities for alternative livelihoods and blue growth development of coastal communities, especially those dependent upon fishing for their livelihoods.

There are some opportunities for alternative livelihood based on local natural resources, for coastal communities in the ISLME, which may be more relevant than tourism or commercial development (which is highly location specific and often results in influx of outsiders rather than benefitting local communities) or . If these are based on the natural resources, they may have to the potential to increase pressure on resources and ultimately may not contribute to blue growth. Unsustainable or poorly planned aquaculture development or environmentally impacting extraction activities (mangrove logging, coral mining etc. are good examples. Policy and best practice for alternative livelihoods is collated and disseminated to inform development polices and local development initiatives. These can be positively influenced by informed regional staff, who are able to advise on alternative livelihoods and experiences captured for replication. These can address overfishing drivers and in doing so this provides a pathway to reduce pressure on fisheries resources.

This will be achieved through the following activities and outputs:

- Strengthened sub-national capacity to promote sustainable coastal livelihoods to address overfishing drivers
- Stocktaking of successful lessons of other initiatives in the ISLME for prospective or innovative alternative livelihoods (including responsibly managed aquaculture)
- Policy and best practice for alternative livelihoods is collated and disseminated
- Policy advice for sustainable small-scale fisheries, including rights-based approaches
- Identification of options to reduce vulnerability of coastal communities to climate variation
- Training in gender mainstreaming for project activities including alternative livelihoods

Outcome 2.5: Pilot projects demonstrate improved EAF/EBM approaches for fisheries and aquaculture

Coastal livelihoods in the ISLME are highly dependent upon marine ecosystem services, and fisheries in particular. There are limited alternative opportunities in these remote coastal areas. The potential of industrial development and tourism is present in the ISLME but tends to be highly focussed and benefits are not spread widely. Sustained benefits from fisheries under increasing population pressure and technological efficiency requires effective management planning. There are a number of other natural-resource based opportunities, of which mariculture offers the greatest potential, in terms of ease of entry and potential economic return. Some existing activities may have serious environmental costs (e.g. salt production using mangrove firewood, coral mining, reef gleaning). Pilot scale activities coupled to local planning processes provides a practical application of capacity building activities and contribute direct experience informing SAP development.

- Pilot fishery management plans are developed in three management areas, applied to the management of regional/sub-regional fishing areas (stocks).
- Pilot plans are initiated for aquaculture development and management in 3 pilot areas/province(s) where mariculture has strong potential to contribute to blue growth (e.g. Tomini Bay, Lombok, or NTT, North Sulawesi - north coast Timor-Leste)
- Coordination with other national blue growth programmes in the region allows promotion of blue growth mariculture and other coastal natural resource-based livelihood pilots to demonstrate social, environmental and economic feasibility

Component 3 Co-ordination with regional information networks, monitoring of project impacts, and dissemination and exchange of information

The overall objective of this component is to develop synergies and cooperation with the regional information networks in the ISLME region, which are relevant to marine environmental and oceanographic monitoring. These networks may be science and research-based (in the case of coastal land use mapping, climate and oceanographic information) or developed for regional monitoring (in the case of information exchange on transboundary fishery issues between adjoining LME programmes and neighbouring-country fishery institutions). The information generated by these networks on issues specific to the ISLME, will feed into the TDA and SAP development process. This component also delivers the lesson learning and information exchange of the ISLME project impacts and outputs which are directed at policy reform and integration into regional and local decision making. Over the longer term, component 3 establishes the institutional cooperation and linkages that will be required to contribute to the ecosystem management information and monitoring needs of SAP implementation.

Component 3 will be deliver two outcomes.

Outcome 3.1: Strengthened cooperation between marine science and natural resource monitoring networks to contribute to ecosystem management of the ISLME

TDA and SAP development will be informed by data from marine scientific and fishery monitoring networks in the region. The project will facilitate access to relevant data, so that it can be integrated into local level planning (e.g. the project pilot planning activities). At the ecosystem scale, greater understanding of the illegal fishing activities, coastal land use change, oceanographic processes and climate variation impacting the function of the ecosystem will provide a solid basis for policy recommendations and actions under the SAP.

This will be achieved through the following activities and outputs:

- Improved monitoring, information sharing and reporting on IUU issues from the LME supports regional information sharing (between adjoining LME programmes, and with neighbouring countries) to combat IUU fishing.
- Illegal fishing activities will be tracked vessel monitoring systems using VMS plots (through cooperation with INDESO project)
- A range of remote sensing data will be used to monitor potential threats to fisheries and coastal

resources in particular: changing coastal land use and the development of coastal aquaculture, through cooperation with the French/Indonesia "Infrastructure Development of Space Oceanography" INDESO project.

- The project will promote institutional linkage between ongoing integrated coastal management and oceanographic monitoring initiatives in the region (via INAGOOS as a coordinating mechanism) to access relevant data to advise policy briefs and pilot planning activities.
- Oceanographic and remote sensing information generation being undertaken by initiatives and projects in the LME region will be collated and coordinated data-holders workshops. This will to contribute to TDA (cooperation with the Indonesia-German SPICE II project)

Outcome 3.2: Regional ISLME knowledge platform developed

The project will seek co-ordination with other relevant regional interventions, monitor project impacts, and disseminate and exchange information through the development of a regional ISLME knowledge platform.

This will be achieved through the following activities and outputs:

- Project monitoring program will be established at the RCU
- RCU will establish a coordination mechanism with the RCU of ATSEA to prevent overlaps and maximize synergies for institutional capacity building (especially in Timor Leste). Additional arrangements will be made with other programmes in the region on areas of mutual interest.
- A communication and information management plan for the Project will be established to provide effective mechanisms for dissemination, awareness and knowledge management.
- Project results and "lessons learned" disseminated, principally through networking events and the project website established following the guidelines from IW:LEARN.
- Policy briefs and advisories based on lessons from the pilot activities and outputs developed from the various components will be communicated within relevant networks. These are targeted to support decision making and policy reform processes.
- The project will engage in regional knowledge sharing via cooperation with neighbouring and global LMEs;
- The project will actively engage and cooperate with IW:LEARN activities and participate at IW Conferences through 1% of the GEF budget.

A1.4 Incremental cost reasoning and expected contributions from the baseline, the GETF, LDCF/SCCF and co-financing

The baseline situation identified a number of key issues that are constraining effective fisheries and ecosystem management within the ISLME, including: fragmented information and data sharing, poor co-ordination on policy and governance, lack of sufficient human capacity (technical, enforcement and management) and, management and planning experience. The GEF grant will support the strengthening of these issues and will be complemented by the co-financed support through the local pilots and other activities providing concrete practical experiences for stakeholders. The expected endorsed SAP and its subsequent implementation will provide solutions to mitigate the broader issues of regional fisheries management through a proposed financing plan with national and international support.

By adopting a holistic approach to fisheries management through EAF/EBM concepts, the project will also examine the issue (see baseline) of placement of artificial reefs and the decommissioning of oil and

gas rigs and their subsequent potential use as artificial reefs. The GEF resources will support an assessment of the approaches used and identify best practices that will serve both the region and activities globally. The work of this project in informing options for responsible rig disposal will receive additional support via co-financing from the industry.

A.1.5 Global environmental benefits (GEFTF, NPIF) and adaptation benefits (LDCF/SCCF)

Overarching potential benefits to fisheries and biodiversity though more effective management, contributing to sustainable fisheries and thus food security, and maintenance of livelihoods. The project will also support MDGs on sustainable development, WSSD targets on biodiversity, poverty alleviation, and support the achievement of Aichi strategic goals from CBD COP 11.

The Project will:

a. Create linkages to other blue growth projects in the ISLME providing solid policy direction for encouraging sustainable use of marine resources for sustainable development
b. Contribute to reduction of illegal fishing through enhanced monitoring, information exchange and regional cooperation
c. Roll-out EAFM management approaches for the basis for addressing the regional trend of over- capacity and over-exploitation;
d. Contribute to limitations on use of destructive fishing gear and practices;
e. Provide advice on mitigation policies for coastal shore and sea-based habitat destruction
f. Identify key threats from land based pollution, particular where this has a direct threat to fisheries and aquaculture and provide advice on its mitigation through improved coastal planning.
g. Identify sustainable alternative livelihoods and advice to policy for sustainable small scale fisheries
h. Enhance knowledge management platform for improved global understanding of the processes that affect the oceanography of the ISLME (and drive climate variation events such as ENSO) and the consequent effects on the ecosystem.
i. Lessons, including best practice, on utilization of oil/gas rigs as artificial reefs that can be applied elsewhere;
j. Practical experience from the application of ecosystem service valuation in management decision making
k. The regionally endorsed SAP will further improve the understanding of ocean and climatic processes within the ISLME that will be of a global benefit.

The benefits will also contribute to regional synergy with other GEF programmes both regionally and globally.

The project implementation promotes stakeholder engagement through planning approaches and has a dedicated gender awareness component activity (Component 2) to ensure that project interventions are not gender-blind. As women have a pivotal role in the post-harvest processing and marketing of fishery products (as well as production in the case of seaweed culture and reef gleaning), women are a key target group in ensuring adoption and sustainability of alternative livelihood options. Particular gender focus will be built into pilot planning activities which are using EAF approaches to identify stakeholder groups and require adequate inclusion of women stakeholders. More broadly, women's involvement in training and planning activities will be monitored for gender balance.

The co-financing of this project (total 15,500,000 USD) and the subsequent implementation of the SAP are essential to achieving the expected GEBs.

A.1.6 Innovativeness, sustainability and potential for scaling up.

Innovativeness

The project will promote Ecosystem Approaches to Fisheries management that balance the activities of fisheries with the ability of the ecosystem to support these activities, whilst seeking options to mitigate negative impacts on non target species and environments. Taking the human dimension into consideration, social and economic drivers of over-exploitation are also the focus of policy advice and reform. The EAFM is highly compatible with and complements broader ICM and EBM approaches and dovetails with coastal land management planning as well as local community based initiatives in both fishery and environmental management which are the major focus of the other GEF funded LME projects such as ATSEA , PEMSEA and SCSLME. The project will demonstrate the connection between EAF and the broader multi-sectoral EBM/ICM approaches.

Through the decentralized pilot demonstrations, the project will seek to utilize existing data on ecosystem services valuation. Through the CTI activities, information on ecosystem services on reefs has been collected and the pilots will test the use of this information in practical management decision supporting activities. The integration of remote sensing and satellite information into decision support systems, such as monitoring IUU fishing and aquaculture zoning, will be amongst the first applications in the region.

The lessons from these innovative applications of information technology and ecosystem service valuation will be shared with the wider IW community.

Sustainability

The endorsement of the SAP will provide a political will in support of a strategy (including a financing plan) for the subsequent implementation of the SAP. This will further support the capacity development of stakeholders involved in the fisheries sector and in ecosystem protection. The strengthening of regional networks through the proposed project will also assist the sustainability and the continuing capacity development within national / regional institutions.

The project will initiate a private sector dialogue on decommissioning, building on experiences of pilot "rigs to reefs" initiatives and marine energy corporate environmental programmes. This proactive approach to minimizing the impacts to fisheries from oil and gas structure removal and engagement with the industry is expected to receive industry funding process.

Private sector involvement in pilot project planning activities is essential and their compliance and buy-in is necessary in developing practical plans. This covers fisheries and aquaculture private sector interests, as well as the broader private sector stakeholder base that forms the support and servicing arm of the fishery and aquaculture sub-sectors.

Linking remote sensing and oceanographic networks to planning in fisheries, pollution and aquaculture development allows existing data collection and analytic services to be accessed to inform resource management, including combatting IUU.

Scaling-up

Regarding building capacity for management of fisheries within the governance frameworks of the sub-national areas, effort has been previously spent on small, focal area pilots rather than planning at the competent level of governance. At the same time, training of subnational units in how to provincial and /or district management plans will strengthen the capacity of local units.

The project has a modest number of pilot activities which will inform the development of the SAP and act as the vehicle for capacity building. The SAP will also focus on replicating/up-scaling the successful elements of the pilot activities throughout the region.

Policies are reformed to promote sustainable small-scale fisheries livelihoods. This is linked to advice on alternative livelihoods and potential for blue growth type livelihood activities are communicated to development partners within the ISLME

The introduction of planning tools for aquaculture planning and development provides the opportunity for future responsible development of mariculture in the ISLME

A.2. Stakeholders: Identify key stakeholders (including civil society organizations, indigenous

people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

The baseline activities have assessed the roles of (and engaged) a wide number of stakeholder at the local, national and the regional levels. The stakeholders groups represent communities and CSOs, local and regional authorities, technical and academic institutions and the private sector (including: fishing organizations, traders, tourism, oil and gas representatives etc.). Women's inclusion is a priority in some key areas where there are strong gender implications especially in local trading and post harvest activities related to pilot initiatives. The following stakeholder groupings will have key roles in the preparation of the proposed project:

At the national level, MMAF & NDFA have responsibility for planning and management of fisheries at national level. This includes approval of large scale Marine Protected Area (MPA) management and measures in the Fishery Management Areas (FMAs). They also have responsibility for cooperation and coordination with regional and international partners and processes.

Engagement with regional partners will be initiated through a regional sharing meeting, with the objective of identifying key areas for cooperation and collaboration as well as potential areas for knowledge exchange.

- INDESO programme (mapping of aquaculture development; VMS track of illegal fishing)
- Regional Plan of Action (RPOA) network for combating Illegal, Unregulated and Unreported fishing
- Neighbouring LME projects (Arafura-Timor Sea Ecosystem Action programme, Bay of Bengal Large Marine Ecosystem project, Sulu-Sulawesi Marine fisheries Project, NGO area-based projects within the ISLME region) lesson sharing and joint actions on transboundary threats between ecosystems.

At the sub-national level, Provincial authorities and institutions responsible for fishery management will be empowered to develop pilot EAF management plans working closely with relevant fishery sector representatives engaged in the planning pilots. These include both commercial fishing private sector companies and interests as well as small-scale artisanal fishers (regarding use of small anchored Fish Aggregating Devices (FADS). This latter group will also be engaged in the identification of potential alternative livelihoods. NGO/CSO rural development programmes will be co-opted to support options for alternative livelihoods and inform the development of supporting policy. NGOs engaged in the CTI-CFF (e.g. WWF, TNC, CI and national environmental NGOs) will also be important stakeholder sin planning related to relating to fishery bycatch, conservation and MPA development and the marine environmental impacts of aquaculture. Preliminary engagement of these stakeholders will be achieved through a process of focussed provincial dialogues in the areas where the proposed pilot projects will be undertaken. Broader consultation will be sought for specific thematic issues (e.g. IUU fishing, artificial reef emplacement, alternative livelihoods) and for the TDA validation process using identified stakeholder representatives from across the ISLME region.

Regional coordination will be established with oceanographic and climate variability related networks and institutions such as Indian Ocean Global Oceanographic Observing system (IOGOOS) networks; Indonesian Global Ocean Observing Systems (INAGOOS) and the GIZ supported "Science for the Protection of Indonesian Coastal Marine Ecosystems" (SPICE III) project. This ensures that their primary data collection and analysis functions are built upon and used effectively in informing the ISLME project's climate and oceanographic components. It is essential that ISLME does not attempt to duplicate these information providers, but increases the value of their services in informing ecosystem decision making.

A.3 Risk. Indicate risks, including climate change, potential social and environmental 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 (table format acceptable):

Risk	Rating	Risk mitigation measures
IUU cooperation has limited impact due to flag state not taking responsibilities	Medium	Communication with RFMO and other IUU fishing and MCS networks to increase peer pressure on flag states to perform their responsibilities
Involvement of private sector (rigs decommissioning) not successful. Oil and gas sector does not cooperate in information gathering on potential pollution impacts to fisheries	Low	Engage the oil and gas sector early in the project to explain the focus of the advisory work to be developed and how it will support their business interest.
Low capacity of sub-national management authorities requires extended capacity building and slow delivery of pilot fishery management plans	Medium	Slow running planning processes cannot be forced. Provision o f additional training and mentoring support to planning teams
Institutions and projects are reluctant to share data	Low	Early engagement with stakeholders targeted for cooperation. To the greatest extent possible, the project will build on existing national and regional data sharing mechanisms and cooperation activities.
Policy support to the SAP is limited	Low	With two participating countries, this is a low risk.
Climate variability and change impacts	Low	These are long term drivers and whilst unlikely to impact the activities of the project in the first phase cannot be ruled out (e.g. coral bleaching events; tropical cyclones. Project activities will be adjusted to accommodate short-term impacts.
Failure to agree common EBM/EAF framework for the ISLME	Low	Regional harmonized EAF training courses exist and training is ongoing. Regional ICM/EBM training is also available through PEMSEA programme.
Fragmentation of effort between countries and between international donors within ISLME	Medium	Due to its archipelagic nature, there is a wealth of marine focused initiatives in the ISLME. A key feature of the project will be reaching out to coordinate with relevant partners to achieve the project outcomes. Particular attention will be paid to ensuring that existing data collection, analysis and knowledge sharing processes are effectively engaged to support the SAP development.
Limited availability of scientific data	Low	This principally applies to Timor-Leste where specific needs for primary data collection will be assessed. Provincial planning in Indonesia may face some constraints.
Size difference between countries and responsibilities for ISLME	Low	Despite the difference in size, the issues between the country are common and can be addressed in t he same framework. Disparities in human and institutional capacity will require particular attention in the case of Timor-Leste.

A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:

The project will actively engage with other nationally financed and donor activities within the ISLME and to build on the baseline established from adjacent regions funded by the GEF. This expected co-ordination will be with:

1) Supporting the objectives of the Coral Triangle Initiative
    a. Contribute to the CTI-CFF objective to address both poverty reduction through economic development, food security, sustainable livelihoods for coastal communities and biodiversity conservation through the protection of species, habitats and ecosystems.
    b. Link to the region-wide Coral Triangle Marine Protected Area System (CTMPAS) through the Marine Protected Areas (MPA) Working Group.
2) Coordinating with the GEF financed LME initiatives that adjoin the ISLME, namely:
    a. Sulu-Sulawesi Marine Eco-Region programme – cooperation on sharing improved information on ETP migrations; transboundary IUU fishing; resource; collaboration on best practices for the live reef fish trade.

b. Arafura-Timor Sea action plan (ATSEA) – joint sharing of IUU vessel information to improve respective efforts to track IUU fishing activity and promote more effective national responses; lessons leaned on development of pilot FMA management plans and joint capacity building work with fisheries administrations.
c. Bay of Bengal Large Marine Ecosystem (BOBLME) – ISLME will use the regional EAFM training course developed by BOLBME and partners; sharing of approaches on shark management and shark management; sharing of information and techniques for establishing transboundary stocks genetics.
d. FAO/GEF/SEAFDEC Strategies for management of trawl bycatch (REBYC II) – trawl management guidance; Use of training approaches for fishery management plan development; bycatch mitigation strategies; Cooperation with SEAFDEC trainers in the EAFM regional training course.
e. SEAFDEC/UNEP/GEF Refugia project in the South China Sea – exchange of lessons on management of large scale refugia as a spatial management approach for key stocks

3) The project will contribute to the Regional Plan of Action for IUU fishing (RPOA) and cooperation with neighbouring countries in combatting IUU fishing.
   a. Sharing of IUU information
   b. Training in port inspections
   c. Use of satellite and VMS information
4) The project will build on the build on achievements of the BOBLME and the Coral Triangle Support Project
   a. Upscaling training and capacity building in application of the ecosystem approach to fishery management
5) Marine coastal management, spatial planning, environmental and oceanographic monitoring in coordination with
   a. INDESO project
   b. INAGOOS/IOGOOS
   c. SPICE project
6) Coral Reef Rehabilitation and Management (COREMAP) Phase III (Indonesia)
   a. Sharing of options for coastal alternative livelihoods, especially if there are common geographic focus of pilot areas
7) The project will coordinate with the GEF/WB "Scaling up the Implementation of the Sustainable Development Strategy for the Seas of East Asia" particularly relating to:
   a. Activities on coastal zone management planning
   b. Pollution risks component
8) The project will contribute to IW:LEARN global knowledge sharing and staff will engage in IW:LEARN global and regional conferences.
9) Others:
   a. Applying Integrated Coastal Management (ICM) to Strengthen Effectiveness of Marine Protected Areas (MPAs) in Key Biodiversity Areas (KBAs) of South East Asia and East Asia (Regional–ASEAN Center for Biodiversity) – potential common areas inside ISLME
   b. Global foundations for reducing nutrient enrichment and oxygen depletion from land based pollution, in support of Global Nutrient Cycle (Global - GEF/UNEP) - potential cooperation on the pollution component
   c. Pipeline ACIAR project for improving compliance with the Conservation and Management Measures of the Western and Central Pacific Fisheries Commission, in particular those conservation and management measures which are related to tuna fisheries within the ISLME – particularly focussing on the issue of artisanal FADs and capture of tuna juveniles.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:

The FAO Code of Conduct for Responsible Fisheries (CCRF) recommends that ecosystem-based approaches to fisheries management should be incorporated into existing regional and national fisheries management frameworks. This approach takes into account the impacts of fishing on fish stocks, the marine ecosystem and biodiversity. Implicit in this approach is the integration of knowledge relating to fisheries and the environment.

The RPOA-IUU is a ministerial initiative of eleven countries: Australia, Brunei Darussalam, Cambodia, East Timor, Indonesia, Malaysia, Papua New Guinea, The Philippines, Singapore, Thailand and Vietnam. The aim of the RPOA-IUU is to promote responsible fishing practices and combat IUU fishing in the SE Asian region. The RPOA-IUU network coordinates reporting on IUU and undertakes limited regional training and capacity building in the participating countries.

APEC's Oceans and Fisheries Working Group (OFWG) was formed in 2011, following a decision to merge the former Marine Resource Conservation and Fisheries working groups (in operation since 1990 and 1991 respectively). OFWG is committed to exchange information and help foster institutional capacity building in a focused regional setting and has undertaken studies and workshops on the issues of IUU fishing and large marine ecosystem management.

The recent CITES listing of a number of sharks species drew attention to the lack of data on the catch of sharks in the ISLME. It was noted that these represent the largest shark fisheries in the world, yet have the least reliable data. The project will strengthen capacity to develop a more comprehensive plan for management of shark in the ISLME.

Indonesia has established Fishery Management Areas (FMAs), but these currently lack comprehensive management plans that incorporate ecosystem approach. The project will assist with the development of a pilot plan, building on the ongoing Arafura-Timor Sea model plan. Timor-Leste does not currently have a comprehensive policy or management plan for its marine fisheries.

In June, 2011, SEAFDEC in collaboration with ASEAN, the ASEAN-SEAFDEC Member Countries, and several partner organizations organized the ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security Towards 2020 "Fish for the People 2020: Adaptation to a Changing Environment". The ASEAN-SEAFDEC Ministers and Senior Officials endorsed the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 to serve as policy frameworks and priority actions for the ASEAN Member Countries to formulate and undertake necessary actions in enhancing sustainable fisheries and it's contribution to food security and the well-being of people in the ASEAN region.

Blue Economy (also referred to in various meetings and documents as *Blue Growth, Green Economy in a Blue World, Blue Green Economy* or *Green growth in fisheries and aquaculture*), has gained much interest in international fora such as the OECD Ministerial Conference (Paris, France, 2009), the UNGA (New York, USA, 2011), RIO+20 (Rio di Janeiro, Brazil, 2012), YEOSU Expo (Yeosu, South Korea 2012), the Asia Conference on Oceans, Food Security and Blue Growth (June 2013, Bali, Indonesia), The Global Oceans Action Summit for Food Security and Blue Growth (February 2014, The Hague, Netherlands) and the Post-2015 SDG process. It has also become key in the development strategies of international organizations such as OECD, UNEP, the World Bank, UNIDO, FAO, the Global Green Growth Institute GGGI, the European Union, and many nations both developed and developing, including Small Island Developing States (SIDS). Indonesia's MMAF have recently embarked upon a Blue Economy Program. The Government of Indonesia's Ministry of Marine Affairs and Fisheries has developed a detailed document entitled 'The Implementation of Blue Economy - Integrated Marine Industry, Farming, Education, Tourism, Energy and Water'. This was inspired by the Rio+20 UN conference on Sustainable Development (June 2012) and has the aim of achieving sustainable and equitable growth while at the

same time ensuring environmental safeguards in marine and fisheries sector. It has a number of core principles, these being 'sustainability, nature's efficiency, zero waste and social inclusiveness'. The Blue economy programme will from the starting point for a comprehensive national programme that will be an important part of the next 5 year national plan.

B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:

The project is designed to catalyze the development and endorsed of a SAP for the ISLME and will primarily address the Strategic Objective IW-2: *Catalyse multi-state cooperation to rebuild marine fisheries and reduce pollution of coasts and Large Marine Ecosystems while considering climatic variability and change* and, in addition, IW3: *Support foundational capacity building, portfolio learning and targeted research needs for joint ecosystem-based management of transboundary water systems.* In addressing these Strategic Objectives the project is expected to realise Outcome 2.1 (*Implementation of agreed SAPs incorporates ecosystem-based approaches to management of LMEs,....),* Outcome 2.2 (*Institutions for joint ecosystem based and adaptive management for LMEs....),* Outcome 2.3 (*Innovative solutions implemented for reduced pollution rebuilding or protecting fish stocks....*) and Outcome 2.4(*Climatic variability and change at coasts and in LMEs incorporated into updated SAP to reflect adaptive management and ICM principles - including protection of Blue Forests*). Under IW3, Outcome 3.1 (*Political commitment, shared vision, institutional capacity for joint ecosystem based management....),* Outcome 3.2 (*On-the-ground modest action implemented in water quality,....fisheries and coastal habitats....)* and Outcome 3.3 (*IW portfolio capacity and performance enhanced...)* will be realised.

The project approach is one of coordination of existing knowledge processes in oceanography and climate variability. The development of new understanding of existing and future pollution threats to fisheries in particular from oil and gas exploration, marine dumping, ghost fishing, mining runoff and other point source pollution. Climate variability has a strong impact on fish migrations and oceanographic processes and the project will support the integration of this information into advice on potential fishery conservation and management measures.

The project will play a catalytic role in addressing transboundary concerns by assisting Indonesia and Timor-Leste to restore and sustain coastal and marine fish stocks and associated biodiversity through the collaborative development and subsequent implementation of the SAP. This is achieved through strengthening national capacity and regional cooperation to deter illegal fishing, improve fishery management plans at regional and sub-regional levels and identify pollution threats to fisheries. To achieve this, the project will support policy and governance reform and promote multiagency partnerships that contribute to WSSD targets for sustaining fish stocks.

The project will also promote capacity development for planning and management of coastal natural resource-based economic activities, including responsible coastal aquaculture. The mariculture sector in particular is a growth area in the ISLME and has the potential to contribute strongly to blue growth is developed responsible. Equally, there are potential ecosystem threats if development is poorly planned or managed. Innovative planning tools using GIS, remote sensing and Ecosystem Approach to Aquaculture planning frameworks will support sustainable aquaculture development in the ISLME.

Indicators would vary in different projects, including: land-based nutrient pollution reduction; rights based and sustainable fisheries policies reducing over-fishing and fostering gear changes; community income benefits; improved enforcement; marine and coastal habitat conserved/restored coastal "Blue forests"; reduction in overcapacity of boats,; and policy/legal/institutional reforms at national and local levels helping States move toward the WSSD 2010/2015 marine targets. Climatic variability and change and ICM would be reflected in updated SAPs for LMEs. Partnership indicators would be captured by incorporation into country assistance frameworks and agency priorities.

Indicators include: evidence of functioning national inter-Ministerial committees; agreed SAPs adopted with shared visions of future action and commitments to reforms/investments and reflecting climatic variability and change; and benefits demonstrated from water quality, quantity, habitat, and fisheries pilot projects.

B.3 The GEF agency's comparative advantage to implement this project:

FAO is an important partner with the GEF. For example, FAO supports the development of several MEAs for which GEF is the financing mechanism for their implementation. FAO contributes:

- Global convening power
- In-house expertise relevant for GEF priorities
- Information systems and networks
- Resource mobilization capacity

In relation to fisheries, aquaculture and the environment, FAO is the specialized UN agency that coordinated the work for developing international norms for the sustainability of fisheries, such as the Code of Conduct for Responsible Fisheries (CCRF, FAO, 1995). The CCRF is now becoming integrated into, or is informing most national fisheries policies. The CCRF advises to: assess and maintain ecosystem integrity, maintain, rebuild and protect biodiversity, rebuild and protect threatened species, minimize adverse ecological change, reduce waste and bycatch. All these goals are fully consistent with GEF own priorities as regards sustainability of aquatic ecosystems in relation to fisheries.

FAO has also been a leader in establishing norms for the application of the Ecosystem Approach to Fisheries (FAO, Reykjavik, 2001), the implementation of which was set as one of the targets for sustainability of fisheries in the Plan of Implementation of the WSSD (Johannesburg, 2001). These areas are particularly important for the GEF International Waters programme.

A number of instruments and guidelines, that in turn constitute main areas of work of FAO's Fisheries Department, support the implementation of the CCRF and of the Ecosystem Approach to Fisheries, and for which FAO also has specific competence and comparative advantages. These include the International Plans of Action (IPOAs) on Seabirds, Sharks, Fishing capacity and Illegal, Unreported and Unregulated fishing (IUU). Furthermore, guidance has been developed on the Precautionary approach (1995), Integration of fisheries in ICAM (1995); Ecolabelling (2005); the Ecosystem Approach to Aquaculture (FAO, 2010), Bycatch Management (2012), the 2009 Port State Measures Agreement (to combat IUU fishing) just as examples.

FAO maintains the Secretariat of the Asia-Pacific Fishery Commission (APFIC), a key regional partner in fisheries, which cooperates with other regional bodies (e.g. SEAFDEC, RPOA) and counts both Indonesia and Timor-Leste amongst its membership.

FAO is currently implementing and executing the Bay of Bengal LME project. This project has a wealth of potential synergies and lessons learned that can contribute to the ISLME programme. These range for TDA and SAP development processes, to specific partnering initiatives that have made progress in the areas of transboundary management of critical areas, MPAs, management of migratory stocks of small pelagic fish.

The Bay of Bengal Large Marine Ecosystem Project and NOAAA Coral Triangle Support Project and APFIC have recently developed an ecosystem approach to fisheries regional training course. This course is targeted at Provincial planning units to build capacity for fishery and related environmental planning using the ecosystem approach. The development of the regional Ecosystem approach to fishery management training course, which is now institutionalized in SEAFDEC, is another key area where the ISLME will benefit. Fishery and coastal EAF management plans will be developed by counterparts trained though this course. The establishment of Indonesian capacity to run the course in national language is ongoing by FAO/BOBLME/APFIC/NOAA/SEAFDEC and partner and will be extended through the ISLME.

FAO therefore has a very broad spectrum of competencies related to fisheries and marine environmental management of high relevance to GEF IW main objectives and to the ISLME project.

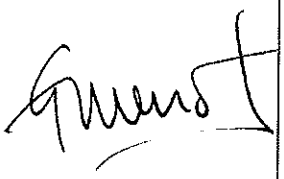
PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

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

NAME	POSITION	MINISTRY	DATE *(MM/DD/YYYY)*
Joao Carlos Soares	General Director GEF Operational Focal Point	Secretariat of State for the Environment Timor Leste	02/28/2014
Dana A. Kartakusuma	Assistant Minister GEF Operational Focal Point	Global Environment	03/04/2014

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
Gustavo Merino Director Investment Centre Division Technical Cooperation Department FAO Viale delle Terme di Caracalla (00153) Rome, Italy TCI-Director@fao.org		March 25, 2014	Simon Funge-Smith	(+66 2) 697 4000	simon.fungesmith@fao.org
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