United Nations Development Programme

Project Document

Project title: Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2); Second Phase of the Arafura Timor Seas Ecosystem Action (ATSEA) Program: Regional and PNG Components		
Country: Indonesia, Timor-Leste, Papua New Guinea	**Implementing Partners:** PEMSEA	**Management Arrangement:** NGO Implementation
UN Partnership for Development Framework (UNPDF)/Country Programme Indonesia 2016-2020: Outcome 3. By 2020, Indonesia is sustainably managing its natural resources, on land and at sea, with an increased resilience to the effects of climate change, disasters and other shocks. Timor-Leste 2015-2019: Outcome 1. People of Timor-Leste, especially the most disadvantaged groups, benefit from inclusive and responsive quality health, education and other social services, and are more resilient to disasters and the impacts of climate change. Papua New Guinea 2018-2022: Outcome 3. Sustainable management of natural resources, biodiversity conservation, strengthened climate & disaster resilience: By 2022, Papua New Guinea demonstrates improved performance in managing environmental resources and risks emanating from climate change and disasters.		
UNDP Strategic Plan Output: Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste. Output 2.5: Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.		
UNDP Social and Environmental Screening Category: Moderate	**UNDP Gender Marker:** 2	
Atlas Proposal/Award ID (also known as 'project'): 00111335 (Regional & PNG)	**Atlas output Project ID (also known as 'output'):** 00110412 (Regional & PNG)	
UNDP-GEF PIMS ID: 5439	**GEF SEC ID**: 6920	
Planned start date: June 2018	**Planned end date:** June 2023 (operational closed date) December 2024 (financial closed date, to be registered to the Ministry of Finance, The Government of Indonesia)	
LPAC date: 24 November 2017		

Brief project description: The ATSEA-2 project is the second phase of the GEF-financed, UNDP-supported ATSEA program, and is designed to enhance regional collaboration and coordination in the Arafura and Timor Seas (ATS) region. ATSEA-2 will specifically focus on supporting the implementation of the endorsed strategic action program (SAP), a 10-year vision for the Arafura-Timor Seas with the long-term objective "to promote sustainable development of the Arafura-Timor Seas region to improve the quality of life of its inhabitants through restoration, conservation and sustainable management of marine-coastal ecosystems". The GEF alternative establishes a regional governance mechanism that strengthens the enabling policies and capacities of institutions and individuals, including the integration of Papua New Guinea, resulting in a sustained transboundary response to over-exploited fisheries and increased pressures on the globally significant biodiversity in the ATS region, including the impacts of climate change. Integrated approaches are designed to incentivize local communities to more sustainably use coastal and marine resources, enhancing their own livelihoods while safeguarding the ecosystem goods and services that are the backbone of their socio-economic well-being.

Expected achievements include:

- A functioning regional governance mechanism, endorsed through a Ministerial Declaration by the four littoral countries of Australia, Indonesia, Papua New Guinea, and Timor-Leste, and supported by a representative stakeholder partnership forum and national inter-ministerial committees;
- Approximately 125 km of coastline under integrated coastal management, with scalable demonstration activities implemented, offering alternative, climate adaptive, livelihood opportunities and strengthening the resilience of local coastal communities;
- Up to 25% of over-exploited fisheries in the ATS region moved to more sustainable levels (this represents approximately 0.25% globally by volume), by building on the concerted efforts of the Government of Indonesia to address IUU fishing;
- Improved scientific knowledge regarding climate change impacts on ATS ecosystem goods and services, and strengthened adaptive capacity of local communities;
- Ecosystem health improved as a result of implementing the ecosystem approach to fisheries management, both regionally, on a large marine ecosystem scale, and locally, for fisheries in Indonesia;
- Improved fisheries management of red snapper and shrimp fisheries in Kabupaten Aru and for barramundi fisheries in Kabupaten Merauke, Indonesia;
- Design and designation of two new marine protected areas (MPAs): a 555,000 ha MPA off the coast of Papua Province in Indonesia; and and a 90,000 ha MPA off the south coast of Timor-Leste;
- Inclusion of oil spill response systems and procedures are included in the ICM plans of Rote Ndao in Indonesia and Município Manatuto in Timor-Leste;
- Design of a regional MPA network, and a regional action plan on enhanced protection of endangered marine turtles endorsed through Ministerial Declaration.

The project will be managed under NIM with full country office support. UNDP Indonesia as Principal Project Representative (PPR) will manage Award ID 00096036 (Indonesia) and 00111335 (Regional & PNG). Further, Timor-Leste national component will be executed through UNDP Timor-Leste under Award ID 00111339. Approximately, each country will receive additional direct benefit from one third of the regional budget allocation. For Indonesia, it will be reported through annual BAST to the Ministry of Finance.

Regional Component (Indonesia & Papua New Guinea)

GEF (Regional & PNG components)	**$4,445,662**
• Total budget for regional component	$3,915,662
• Total budget to the Government of Papua New Guinea	$530,000
Total Co-financing (US$)	**$33,818,412**
• UNDP Indonesia, Grant	$37,500
• UNDP Indonesia, In-Kind	$25,000
• UNDP Papua New Guinea, In-Kind	$25,000
• Government of Indonesia, Ministry of Marine Affairs and Fisheries (MMAF), In-Kind	$16,345,261
• Government of Indonesia, MMAF, Grant	$400,000
• LIPI (Indonesian Institute of Sciences), Grant	$300,000
• Government of Timor-Leste, In-Kind	$10,000,000
• Government of Papua New Guinea, Grant	$1,500,000
• Government of Papua New Guinea, In-Kind	$500,000
• Government of Australia, Ministry of Environment, Grant	$4,600,000
• USAID Adapt Asia-Pacific Program, In-Kind	$85,651

Signatures

Agreed by UNDP:

Christophe Bahuet

Country Director, UNDP Indonesia

Nilanto Perbowo

Secretary General, Ministry of Marine Affairs and Fisheries, Republic of Indonesia

National Fisheries Authority (NFA), Papua New Guinea

Ministry of Agriculture and Fisheries (MAF), Timor-Leste

On:

Date/Month/Year

Empowered lives.
Resilient nations.

United Nations Development Programme

Project Document

Project title: Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2); Second Phase of the Arafura Timor Seas Ecosystem Action (ATSEA) Program: Indonesia National Component		
Country: Indonesia	**Implementing Partners:** Indonesia: Ministry of Marine Affairs and Fisheries (MMAF)	**Management Arrangement:** National Implementation Modality
UN Partnership for Development Framework (UNPDF)/Country Programme Indonesia 2016-2020: Outcome 3. By 2020, Indonesia is sustainably managing its natural resources, on land and at sea, with an increased resilience to the effects of climate change, disasters and other shocks.		
UNDP Strategic Plan Output: Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste. Output 2.5: Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.		
UNDP Social and Environmental Screening Category: Moderate	**UNDP Gender Marker:** 2	
Atlas Proposal/Award ID (also known as 'project'): 00096036 (Indonesia)	**Atlas output Project ID (also known as 'output'):** 00100050 (Indonesia)	
UNDP-GEF PIMS ID: 5439	**GEF SEC ID**: 6920	
Planned start date: June 2018	**Planned end date:** June 2023 (operational closed date) December 2024 (financial closed date, to be registered to the Ministry of Finance, The Government of Indonesia)	
LPAC date: 24 November 2017		
Brief project description: The ATSEA-2 project is the second phase of the GEF-financed, UNDP-supported ATSEA program, and is designed to enhance regional collaboration and coordination in the Arafura and Timor Seas (ATS) region. ATSEA-2 will specifically focus on supporting the implementation of the endorsed strategic action program (SAP), a 10-year vision for the Arafura-Timor Seas with the long-term objective "to promote sustainable development of the Arafura-Timor Seas region to improve the quality of life of its inhabitants through restoration, conservation and sustainable management of marine-coastal ecosystems". The GEF alternative establishes a regional governance mechanism that strengthens the enabling policies and capacities of institutions and individuals, including the integration of Papua New Guinea, resulting in a sustained transboundary response to		

over-exploited fisheries and increased pressures on the globally significant biodiversity in the ATS region, including the impacts of climate change. Integrated approaches are designed to incentivize local communities to more sustainably use coastal and marine resources, enhancing their own livelihoods while safeguarding the ecosystem goods and services that are the backbone of their socio-economic well-being.

Expected achievements include:

- A functioning regional governance mechanism, endorsed through a Ministerial Declaration by the four littoral countries of Australia, Indonesia, Papua New Guinea, and Timor-Leste, and supported by a representative stakeholder partnership forum and national inter-ministerial committees;

- Approximately 125 km of coastline under integrated coastal management, with scalable demonstration activities implemented, offering alternative, climate adaptive, livelihood opportunities and strengthening the resilience of local coastal communities;

- Up to 25% of over-exploited fisheries in the ATS region moved to more sustainable levels (this represents approximately 0.25% globally by volume), by building on the concerted efforts of the Government of Indonesia to address IUU fishing;

- Improved scientific knowledge regarding climate change impacts on ATS ecosystem goods and services, and strengthened adaptive capacity of local communities;

- Ecosystem health improved as a result of implementing the ecosystem approach to fisheries management, both regionally, on a large marine ecosystem scale, and locally, for fisheries in Indonesia;

- Improved fisheries management of red snapper and shrimp fisheries in Kabupaten Aru and for barramundi fisheries in Kabupaten Merauke, Indonesia;

- Design and designation of two new marine protected areas (MPAs): a 555,000 ha MPA off the coast of Papua Province in Indonesia; and and a 90,000 ha MPA off the south coast of Timor-Leste;

- Inclusion of oil spill response systems and procedures are included in the ICM plans of Rote Ndao in Indonesia and Município Manatuto in Timor-Leste;

- Design of a regional MPA network, and a regional action plan on enhanced protection of endangered marine turtles endorsed through Ministerial Declaration.

The project will be managed under NIM with full country office support. UNDP Indonesia as Principal Project Representative (PPR) will manage Award ID 00096036 (Indonesia) and 00111335 (Regional & PNG). Further, Timor-Leste national component will be executed through UNDP Timor-Leste under Award ID 00111339. Approximately, each country will receive additional direct benefit from one third of the regional budget allocation. For Indonesia, it will be reported through annual BAST to the Ministry of Finance.

Regional Component (Indonesia & Papua New Guinea)

GEF (Regional & PNG components)	**$4,445,662**
• Total budget for regional component	$3,915,662
• Total budget to the Government of Papua New Guinea	$530,000
Total Co-financing (US$)	**$33,818,412**
• UNDP Indonesia, Grant	$37,500
• UNDP Indonesia, In-Kind	$25,000
• UNDP Papua New Guinea, In-Kind	$25,000
• Government of Indonesia, Ministry of Marine Affairs and Fisheries (MMAF), In-Kind	$16,345,261
• Government of Indonesia, MMAF, Grant	$400,000
• LIPI (Indonesian Institute of Sciences), Grant	$300,000
• Government of Timor-Leste, In-Kind	$10,000,000
• Government of Papua New Guinea, Grant	$1,500,000
• Government of Papua New Guinea, In-Kind	$500,000
• Government of Australia, Ministry of Environment, Grant	$4,600,000
• USAID Adapt Asia-Pacific Program, In-Kind	$85,651

Signatures

Agreed by UNDP:

Christophe Bahuet

Country Director, UNDP Indonesia

Nilanto Perbowo

Secretary General, Ministry of Marine Affairs and Fisheries, Republic of Indonesia

National Fisheries Authority (NFA), Papua New Guinea

Ministry of Agriculture and Fisheries (MAF), Timor-Leste

On:

Date/Month/Year

Empowered lives.
Resilient nations.

United Nations Development Programme

Project Document

Project title: Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2); Second Phase of the Arafura Timor Seas Ecosystem Action (ATSEA) Program: Timor Leste National Component		
Country: Timor-Leste	**Implementing Partners:** Timor-Leste: Ministry of Agriculture and Fisheries (MAF)	**Management Arrangement:** National Implementation Modality
UN Partnership for Development Framework (UNPDF)/Country Programme Timor-Leste 2015-2019: Outcome 1. People of Timor-Leste, especially the most disadvantaged groups, benefit from inclusive and responsive quality health, education and other social services, and are more resilient to disasters and the impacts of climate change.		
UNDP Strategic Plan Output: Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste. Output 2.5: Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.		
UNDP Social and Environmental Screening Category: Moderate	**UNDP Gender Marker:** 2	
Atlas Proposal/Award ID (also known as 'project'): 00111339 (Timor-Leste)	**Atlas output Project ID (also known as 'output'):** 00110428 (Timor-Leste)	
UNDP-GEF PIMS ID: 5439	**GEF SEC ID**: 6920	
Planned start date: June 2018	**Planned end date:** June 2023 (operational closed date)	
LPAC date: 24 November 2017		
Brief project description: The ATSEA-2 project is the second phase of the GEF-financed, UNDP-supported ATSEA program, and is designed to enhance regional collaboration and coordination in the Arafura and Timor Seas (ATS) region. ATSEA-2 will specifically focus on supporting the implementation of the endorsed strategic action program (SAP), a 10-year vision for the Arafura-Timor Seas with the long-term objective "to promote sustainable development of the Arafura-Timor Seas region to improve the quality of life of its inhabitants through restoration, conservation and sustainable management of marine-coastal ecosystems". The GEF alternative establishes a regional governance mechanism that strengthens the enabling policies and capacities of institutions and individuals, including the integration of Papua New Guinea, resulting in a sustained transboundary response to over-exploited fisheries and increased pressures on the globally significant biodiversity in the ATS region,		

including the impacts of climate change. Integrated approaches are designed to incentivize local communities to more sustainably use coastal and marine resources, enhancing their own livelihoods while safeguarding the ecosystem goods and services that are the backbone of their socio-economic well-being.

Expected achievements include:

- A functioning regional governance mechanism, endorsed through a Ministerial Declaration by the four littoral countries of Australia, Indonesia, Papua New Guinea, and Timor-Leste, and supported by a representative stakeholder partnership forum and national inter-ministerial committees;
- Approximately 125 km of coastline under integrated coastal management, with scalable demonstration activities implemented, offering alternative, climate adaptive, livelihood opportunities and strengthening the resilience of local coastal communities;
- Up to 25% of over-exploited fisheries in the ATS region moved to more sustainable levels (this represents approximately 0.25% globally by volume), by building on the concerted efforts of the Government of Indonesia to address IUU fishing;
- Improved scientific knowledge regarding climate change impacts on ATS ecosystem goods and services, and strengthened adaptive capacity of local communities;
- Ecosystem health improved as a result of implementing the ecosystem approach to fisheries management, both regionally, on a large marine ecosystem scale, and locally, for fisheries in Indonesia;
- Improved fisheries management of red snapper and shrimp fisheries in Kabupaten Aru and for barramundi fisheries in Kabupaten Merauke, Indonesia;
- Design and designation of two new marine protected areas (MPAs): a 555,000 ha MPA off the coast of Papua Province in Indonesia; and and a 90,000 ha MPA off the south coast of Timor-Leste;
- Inclusion of oil spill response systems and procedures are included in the ICM plans of Rote Ndao in Indonesia and Município Manatuto in Timor-Leste;
- Design of a regional MPA network, and a regional action plan on enhanced protection of endangered marine turtles endorsed through Ministerial Declaration.

The project will be managed under NIM with full country office support. UNDP Indonesia as Principal Project Representative (PPR) will manage Award ID 00096036 (Indonesia) and 00111335 (Regional & PNG). Further, Timor-Leste national component will be executed through UNDP Timor-Leste under Award ID 00111339. Approximately, each country will receive additional direct benefit from one third of the regional budget allocation. For Indonesia, it will be reported through annual BAST to the Ministry of Finance.

National Component (Timor-Leste)

GEF (National Timor-Leste component)	**$2,120,000**
Total budget for National Timor-Leste component	$2,120,000
Total Co-financing (US$)	**$10,000,000**
Government of Timor-Leste, In-Kind	$10,000,000

Signatures

Agreed by UNDP:

Mr. Claudio Providas, Country Director, UNDP Timor Leste

Agreed by Implementing Partner:

3/05/2019

Ministry of Agriculture and Fisheries (MAF), Timor-Leste

TABLE OF CONTENTS

List of Tables

List of Figures

List of Boxes

List of Annexes

ACRONYMS

Exchange Rates:	2012	2013	2014	2015
Australian Dollar (AUD):USD	0.96598	1.03646	1.10966	1.33124
Indonesian Rupiah (IDR):USD	9,364.9	10,432.2	11,849.9	13,391.7
Papua New Guinea Kina (PGK):USD	2.03798	2.28175	2.57694	2.76708

*Exchange rates are annual midpoint averages (www.oanda.com)

ACB	ASEAN Centre for Biodiversity
ADB	Asian Development Bank
AFMA	Australian Fisheries Management Authority
AIMS	Australian Institute of Marine Science
AMFRD	Agency for Marine and Fisheries Research and Development - MMAF (Indonesia)
APR/PIR	Annual Project Review/Project Implementation Report
ASEAN	Association of Southeast Asian Nations
ATS	Arafura and Timor Seas
ATSEA	Arafura and Timor Seas Ecosystem Action Program
ATSEF	Arafura and Timor Seas Expert Forum
BD	Biodiversity (GEF focal area)
BPPS	Bureau for Policy and Programme Support (UNDP)
BRH	Bangkok Regional Hub (UNDP)
CCA	Climate Change Adaptation
CCRF	Code of Conduct for Responsible Fisheries (CCRF) - FAO
CDU	Charles Darwin University
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSIRO	Commonwealth Scientific and Industrial Research Oganisation
CTC	Coral Triangle Center
CTI-CFF	Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security
CMS	Convention on the Conservation of Migratory Species of Wild Animals
DAWR	Department of Agriculture and Water Resources (Australia)
DFAT	Department of Foreign Affairs and Trade (Australia)
EA	Executing Agency
EAFM	Ecosystem Approach to Fisheries Management
EbA	Ecosystem-based Adaptation
EEZ	Exclusive Economic Zone
ENSO	El Niño-Southern Oscillation
FAD	Fish Aggregating Device
FKPPS	Forum Coordination for Fisheries Resources Utilization Management (*Forum Koordinasi Pengelolaan Pemanfaatan Sumberdaya*) - Indonesia
FMA	Fisheries management area
FMP	Fisheries management plan
FSP	Full-sized project (GEF)
IA	Implementing Agency
IFAD	International Fund for Agricultural Development
IUU	Illegal, unreported, and unregulated (fishing)
IW	International Waters (GEF focal area)
Kabupaten	District (in Bahasa language) - Indonesia
KIARA	*Koalisi Rakyat untuk Keadilan Perikanan* (The People's Coalition for Fisheries Justice) - NGO in Indonesia
LIPI	*Lembaga Ilmu Pengetahuan Indonesia* (Indonesian Institute of Sciences)
LME	Large Marine Ecosystem
LTA	Long-Term Agreement
M&E	Monitoring and Evaluation

MAF	Ministry of Agriculture and Fisheries (Timor-Leste)
MCS	Monitoring, Control, and Surveillance
MMAF	Ministry for Marine Affairs and Fisheries (Indonesia)
MPA	Marine Protected Area
MSC	Marine Stewardship Council
MTR	Mid-term review
NAP	National Action Program
NCU	National Coordination Unit
NFA	National Fisheries Authority (Papua New Guinea)
NGO	Non-Governmental Organization
NIMC	National Inter-Ministerial Committee
NOAA	National Oceanic and Atmospheric Administration (USA)
NTT	Nusa Tenggara Timur (province in Indonesia)
NTZ	No-Take Zone
PPR	Primary Project Representative
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
PERDA	*Peraturan Daerah* (Local Regulation) - Indonesia
PIF	Project Identification Form (GEF)
PMU	Project Management Unit
PNG	Papua New Guinea
PPG	Project Preparation Grant (GEF)
PRF	PEMSEA Resource Facility
RCC	Regional Coordination Committee
RPM	Regional Project Manager
RPMU	Regional Project Management Unit
RPoA-CTI	Reginal Plan of Action – CTI
RPoA-IUU	Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region
RSC	Regional Steering Committee
SAP	Strategic Action Program
SFP	Sustainable Fisheries Partnership
SGP	Small Grants Programme (UNDP-GEF)
SPF	Stakeholder Partnership Forum
SSF	Small-Scale Fisheries
TDA	Transboundary Diagnostic Analysis
TNC	The Nature Conservancy
TOR	Terms of Reference
TRAC	Target for Resource Assignment from the Core (UNDP)
TSPZ	Torres Strait Protected Zone
UNDP	United Nations Development Programme
UNDP CO	UNDP Country Office
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VMS	Vessel Monitoring System
WCMP	The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean
WWF	World Wide Fund for Nature

SECTION I: ELABORATION OF THE NARRATIVE

PART I: Situation Analysis

INTRODUCTION

1. The littoral countries of Indonesia, Timor-Leste, and Australia demonstrated joint commitment to a regional response for improving management and governance of the Arafura and Timor Seas (ATS) ecosystems, through signing of a Ministerial Declaration 2014 that formalizes support of the long-term objective and vision of the ATS regional strategic action program (SAP) **"***to promote sustainable development of the Arafura-Timor Seas region to improve the quality of life of its inhabitants through restoration, conservation and sustainable management of marine-coastal ecosystems***"**. The ATS SAP, developed as part the first phase of the ATSEA program, includes five medium-term environmental objectives and one governance objective as presented below in **Box 1**.

Box 1: **Medium term (10-year) environmental quality and governance objectives of the ATS regional strategic action program**

ENVIRONMENTAL OBJECTIVES:

1. Recovering and sustaining fisheries

Target 1.1: IUU fishing reduced in the ATS by 15-20%;

Target 1.2: Ecosystem Approach to Fisheries Management applied across the ATS;

2. Restoring degraded habitats for sustainable provision of ecosystem services

Target 2.1: Enhanced management and protection of 20% of marine and coastal habitats (including mangroves, coral reefs, and sea grass beds);

3. Reducing land-based and marine sources of pollution

Target 3.1: Reduction of the ecologically harmful impacts of nutrients in coastal waters from base year;

Target 3.2: Reduction in the incidence and impacts of marine-based pollution from base year;

4. Protecting key marine species

Target 4.1: Enhanced protection of 10-20% of important habitats for threatened and migratory marine species; 20% decrease in direct and indirect harvesting of threatened and migratory species;

5. Adaptation to the impacts of climate change

Target 5.1: Increased understanding of climate change impacts and incorporation of that knowledge into management plans and strategies, including establishment of management plans for more than 60% of at-risk coastal villages.

GOVERNANCE OBJECTIVE:

6. Strengthening of ATS regional governance Target

6.1: A regional mechanism for cooperation;

Target 6.2: A Stakeholder Partnership Forum of experts and practitioners involved in research and capacity development activities relevant to the SAP and NAPs.

2. The regional response has been further strengthened with the decision by the Government of Papua New Guinea to take part in this second phase of the ATSEA program, which focuses on strengthening regional governance structures and supports implementation of the priority actions outlined in the ATS SAP and national action programs (NAPs). Papua New Guinea is a key country in the management of ATS; fisheries of Arafura Sea are supported by the same fish stocks from the adjacent Torres Strait that borders Australia and Papua New Guinea.

CONTEXT AND GLOBAL SIGNIFICANCE

Geographic scope

3. The ATS is part of the North Australian Shelf large marine ecosystem (LME), which is a tropical sea lying between the Pacific and Indian Oceans and extending from the Timor Sea to the Torres Strait and including the Arafura Sea and Gulf of Carpentaria (**Figure 1**).. The Indonesian Throughflow, a warm-water current flowing through the ATS, delivers up to 10 million cubic meters per second from the Pacific to the Indian Ocean, playing a crucial role in influencing the world's climate system[1] . Global climate patterns are also affected by the El Niño-Southern Oscillation (ENSO[2]) phenomenon and the Indian Pacific Warm Pool that exists in these seas.

Figure 1: Map of the ATS Region[3]

4. The region is adjacent to the Coral Triangle[4] which hosts the world's highest marine biodiversity and contains some of the most pristine and highly threatened coastal and marine ecosystems. ATS habitats are diverse, having 25% of the worldwide mangroves and 90% of mangrove tree species, with up to 45 species reported (from the genera Avicennia, Sonneratia, Rhizophora, Bruguiera, Ceriops, Nypa and Xylocarpus). Seagrass beds in the region are also diverse, with up to 15 species of recorded in Australian waters and 11 in Indonesian waters (*Halodule pinifolia, Halodule uninervis, Cymodocea rotundata, Cymodocea serrulata, Syringodium isoetifolium,*

1 LME Brief: Aquarone, Ms. C. and M. Furnas, VIII-13 North Australian Shelf: LME 39, http://lme.edc.uri.edu

2 El Niño–Southern Oscillation (ENSO) is an irregularly periodical variation in sea surface temperatures over the tropical eastern Pacific Ocean, affecting much of the tropics and subtropics. The warming phase is known as El Niño and the cooling phase as La Niña. Southern Oscillation is the accompanying atmospheric component, coupled with the sea temperature change: El Niño is accompanied with high and La Niña with low air surface pressure in the tropical western Pacific.

3 Source of map: ATS transboundary diagnostic analysis (TDA), 2012

4 The Coral Triangle is a marine area located in the western Pacific Ocean, and including the waters of Indonesia, Malaysia, the Philippines, Papua New Guinea, Timor-Leste and Solomon Islands.

Thallasodendrom ciliatum, Enhalus acoroides, Thalassia hemprichii, Halophila ovalis, Halophila ovata and *Halophila spinulosa.)*. Coral reefs surround the offshore islands of eastern Indonesia and Timor-Leste, and the Timor Sea has 160 species of coral that provide habitat for 350 species of reef fish.

5. The ATS habitats are also critical for supporting migratory, rare, threatened, and endangered marine species, such as nesting colonies of shorebirds and seabirds, cetaceans, dugongs, sharks and rays, turtles and sea snakes. The most commonly found marine turtles in the Arafura and Timor Seas are the green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricata*), and leatherback turtle (*Dermochelys coriacea*). Marine turtles of the Cheloniidae Family and Dermochelidae Family are among those species most endangered, listed in Appendix I[5] of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

6. At least 14 species of cetaceans have been reported in the surrounding waters of Komodo, Rinca, and Flores Islands, These species include *Delphinus delphis* (Common dolphin), *Feresa attenuata* (Pygmy killer whale), *Grampus griseus* (Risso's dolphin), *Lagenodelphis hosei* (Fraser's dolphin), *Peponocephala electra* (Melon-headed whale), *Pseudorca crassidens* (False killer whale), *Stenella longirostris* (Long-nosed spinner dolphin), *S. Attenuata* (Pan-tropical spotted dolphin), *Tursiops truncatus* (Bottlenose dolphin), *Steno bredanensis* (Rough-toothed dolphin), *Ziphius cavirostris* (Cuvier's beaked whale), *Kogia sp, Balaenoptera edeni and Physeter macrocephalus* (Sperm whale). Elasmobranchs are also common in the ATS; sharks are found in up to 15 Families with 64 species, and rays are identified in up to 11 Families with 41 species, while Chimaera are known of only one Family with 2 species. Dugongs (*Dugong dugon)* are associated with the abundance of seagrasses. Many of these marine species are threatened by a combination of overfishing and loss of habitat, underscoring the urgent need for collective regional action and transboundary management of shared fish stocks, critical habitats and marine mega fauna.

Regional Context

7. At the regional scale, the ecosystems of the ATS play an important economic and ecological role in the littoral nations bordering the Arafura and Timor Sea: Indonesia, Timor-Leste, Australia, and Papua New Guinea. Australia has the longest coastline followed by Indonesia and Timor-Leste while a shorter coastline of Papua New Guinea's Western Province borders on the Arafura Sea. The Torres Strait which is covered by a bilateral treaty between Australia and Papua New Guinea is not part of the ATS.

8. The ATS region is extremely rich in living and non-living marine resources, including major fisheries and oil and gas reserves. It has strong connectivity in oceanographic and ecological processes, such as the movement of pelagic and migratory species. Significantly, the ATS region exhibits high productivity that sustains both small- and large-scale fisheries, including several high-value, shared transboundary fish stocks, with industrial-scale fisheries, such as finfish trawl fishery, shrimp trawl fishery, and bottom long-line fishery. These fisheries provide livelihoods for millions of people in the region, and make significant contributions to food security for both regional communities and also, large populations in export market countries to the north, including China. However, many of the ATS fisheries are fully exploited or over exploited.

5 CITES Appendices I, II, and III, valid from 5 February 2015, www.cites.org

CHALLENGES, ROOT CAUSES AND IMPACTS

9. The marine environment in the ATS region is in serious decline, primarily as a result of over-harvesting and other direct and indirect impacts of anthropogenic stresses and global climatic changes. The priority environmental concerns, as outlined below in **Table 1**, identified through a series of national and regional consultations during the first phase of the ATSEA project, were used to develop the Strategic Action Program (SAP).

Table 1: Priority environmental concerns in the Arafura and Timor seas region (ATSEA, 2012[6])

Priority Environmental Concerns	Key Causal Factors	Key Impacts
Unsustainable fisheries & decline & loss of living coastal & marine resources	Illegal, unreported and regulated fishing; unsustainable practices; fisheries bycatch	Depletion of shared trans-boundary and pelagic fisheries – sharks/rays, red and gold band snappers, trepang, prawns/shrimp, tuna (Arafura Sea, Timor Sea) Over-exploitation of coastal fisheries resources – trepang, trochus, coral reef fisheries (Arafura Sea, Timor-Leste, Gulf of Carpentaria) Fisheries 'bycatch' – shrimp/prawn trawling (Arafura Sea, Gulf of Carpentaria), red snapper (Timor Sea)
Modification, degradation & loss of coastal & marine habitats	Coastal development, bottom trawling, fuel wood (mangroves), dynamite fishing, pollution (sediments)	Decline & loss of soft bottom habitats (bottom trawling) – Arafura Sea, Gulf of Carpentaria, Bonaparte Gulf Decline & loss of mangroves – Timor-Leste (fuel wood), Aru Sea (coastal development) Decline & loss of coral reefs (sediments, dynamite fishing) – NTT, Maluku, Aru Sea, Timor-Leste Decline & loss of seagrasses (sediments, dieback)
Marine & land-based pollution (e.g. marine debris, sediments, oil spills)	Coastal development (nutrients, sediments), mining (sediments, toxicants), land degradation (sediments), oil spills, marine debris	Sediment runoff – land degradation (Dili, Timor-Leste), mining activities (Gulf of Carpentaria, Aru Sea, Papua) Toxicants (coastal mining activities) – Gulf of Carpentaria (Nhulunbuy, Milner Bay, Bing Bong, Weipa, Karumba), Aru Sea (and Papua), Kupang, Wetar Island Eutrophication - Darwin Harbor, Aru Sea Marine debris – Gulf of Carpentaria, Arafura Sea Oil spills & impacts – Timor Sea, southern NTT ('Montara' oil spill)
Decline & loss of biodiversity & key marine species	Illegal and unsustainable harvesting, fisheries bycatch (ghostnets, trawling, tuna long-lines), habitat loss, and climate change	Marine turtles – Aru Sea, northern Australia (illegal and unsustainable harvest, fisheries bycatch, marine debris, tuna long-lines) Dugongs – Aru Sea, northern Australia (illegal and unsustainable harvest, fisheries bycatch, marine debris) Cetaceans – ATS (fisheries bycatch, shipping, seismic activities) Sharks/rays – ATS, northern Australia (IUU fishing, unsustainable harvest, fisheries bycatch) Sea snakes – ATS, northern Australia (fisheries bycatch) Seabirds/shorebirds – ATS (oil and gas industry impacts, fisheries bycatch, illegal and unsustainable harvest)

[6] ATSEA, 2012. Transboundary Diagnostic Analysis for the Arafura and Timor Seas Region

Priority Environmental Concerns	Key Causal Factors	Key Impacts
Impacts of climate change	Fossil fuel-based global energy consumption, land use, land use change, and forestry	Ocean warming – dynamics of the Indo-Pacific Warm Pool, ocean thermostat Increased sea temperatures - northern seas warming, impacts on ocean processes, marine biodiversity (particularly marine reptiles, corals) Increased extreme climatic events (cyclonic activities, rainfall, drought) – increased cyclonic frequency & intensity Sea level rise – coastal flooding, saltwater intrusion, loss of coastal habitat & biodiversity

10. These transboundary priority environmental concerns are influenced by several key drivers, including: national macro-economic conditions, including economic growth, consumption patterns, and labor markets; domestic politics and policies, and regulation, including taxation, industry protection, environmental policy, industry assistance and development; and region specific trends, including land supply, land rights claims, views on the environment, regional development policy, demographic and labor market changes (Stacey et al., 2011[7]).

Poorly managed fisheries

11. Fisheries in the ATS region represent an extremely complex productive, socio-economic sector, with multiple actors, target species sought, and technology used. Fishing is driven by a range of social, cultural, economic factors at different spatial and temporal scales, and certain fisheries are exploited through legal and illegal fishing practices in each country and regionally. Poorly managed or, in some cases unmanaged, extraction of fish, prawns, and other biota, coupled with other pressures such as pollution and disease, have led to overexploitation and, in many instances, to a decline in living resources within some areas of the ATS. The fisheries are complex and diverse, reflecting the region's extraordinarily heterogeneous geography and species richness. While small-scale fishing predominates in the ATS with respect to the number of fishers, industrial fisheries contribute considerably more in terms of economic value since they target high-value shrimp and demersal fish species. Recent studies (Wagey et al, 2009[8]; Purwanto, 2011[9]) in the Arafura Sea have identified several signs of overfishing, including (1) a decline in the abundance index for economically important shrimp, as well as decline in average size of individuals; (2) an increase in sailing days of the commercial fishing fleet; and (3) a shift in species composition towards non-economic bycatch and small crabs per catch unit. While such studies provide indications of major trends, significant uncertainty exists with respect to the status of local fish stocks due to high levels of Illegal, Unreported and Unregulated (IUU) fishing in the ATS.

12. During the course of the preparation of this project, the Government of Indonesia has initiated an intensive campaign to combat illegal fishing, including in the Arafura Sea region. In late 2014 a moratorium was put into place that restricted issuance of fishing licenses for foreign vessels. Two separate tasks forces have been established, one by the Ministry of Marine Affairs and Fisheries (MMAF) on Prevention and Eradication of IUU Fishing, and the other by the President, on Eradication of Illegal Fishing. There have been a number of highly publicized actions made,

[7] Stacey, Ne, Nurhakim, S, Nugroho, D, Soselisa, H, Resosudarmo, B, Kalis, O, Monteiro, J, Prescott, J, Martin, J & Karam, J 2011, Socio-economic Profile of the Arafura and Timor Seas. Report prepared for the Arafura Timor Seas Ecosystem Action (ATSEA) Program. Jakarta

[8] Wagey, G.A., S. Nurhakim, V.P.H. Nikijuluw, Badrudin, and T.J. Pitcher. 2009. A study of Illegal, Unreported and Unregulated (IUU) fishing in the Arafura Sea, Indonesia. Research Centre for Capture Fisheries, MMAF. Jakarta, 54 pp.

[9] Purwanto. 2011. A compromise solution to the conflicting objectives in the management of the Arafura Shrimp Fishery. Indonesian Fisheries Research Journal. 17 (1): 37-45.

including sinking of 103 foreign vessels in the one year timeframe of October 2014 through October 2015[10].

13. The Arafura Sea Fisheries Management Area (FMA 718 or *WPP* 718), one of the most heavily exploited regions in Indonesian waters (Wagey et al. 2009[11]; Adhuri et al. 2009[12]), has suffered from inappropriate and destructive fishing activities undertaken by industrial scale fishing fleets by Indonesian and others, including from countries to the north such as Taiwan and China who operate using fish trawls, shrimp trawls, gillnets and bottom long lines. Priority concerns regarding fishing in Arafura Sea are unrecorded catch, which includes catch that is thrown away (bycatch, discards), catch which is not reported, catch which is reported but not properly recorded (misreported), and illegal fishing activities. Unreported fishing is another important issue in the region. It is estimated that more than 80% of demersal fish, mostly Red Snapper (*Lutjanus* sp) harvested from the Arafura Sea using bottom long line, caught between 1980 and 2005 were unreported (Wagey et al. 2009). With regard to illegal fishing activity, particularly in the fishnet fishery, fish are typically transshipped from the fishing vessel to foreign carrier vessels for transport to country of origin. Thus, a major problem is the widening gap between official fisheries statistics for the Arafura Sea and the actual real catch and effort.

14. Root causes of the poorly managed fisheries are multi-faceted, including lack of information on the extent and nature of unsustainable use and overexploitation of resources, absence of a regional management approach, poor enforcement by government (e.g., IUU fishing), lack of effective management including plans and coordination, and lack of capacity. Strong demand for high value resources and markets at local, regional and international levels also contributes to the problem. For the artisanal fishers there remains a lack of viable alternative, non-fisheries based livelihoods (whether through livelihood diversification or new activities).

15. Other root causes of unsustainable fishing are related to the socioeconomic circumstances of many of the ATS local communities; for example, lack of food alternatives, increasing coastal populations, unavailable livelihood opportunities for rural coastal peoples in the region, (whether through livelihood diversification or new activities), poor information on fisheries stocks and impacts of overharvesting, different cultural views and levels of awareness regarding the causes of declining harvests of resources, and a steady breakdown of traditional management regimes. Challenges in developing and sustaining alternative or supplementary livelihoods and improving resource management outcomes in ATS region include developing appropriate livelihood diversification and or new activities outside of traditional or established activities for local coastal populations in face of significant socioeconomic and cultural challenges.

16. Reef fisheries, which are important to subsistence and artisanal fishers in the region, have been heavily and chronically overfished, resulting in reduced levels of fish stocks and compelling many fishers to resort to destructive practices, such as bomb and cyanide fishing, which are especially evident in Indonesia. Overexploited stocks include many species of groupers, as well as benthic invertebrates, such as sea cucumbers and clams.

17. The main characteristics of depletion of shared ATS transboundary stocks by fishery were assessed as part of the ATS transboundary diagnostic analysis (TDA) in 2012[13] and are outlined

---

[10] Source: Mas Achmad Santosa, Head of Task Force on the Prevention, Deterrence and Elimination of IUU Fishing Ministry of Marine Affairs and Fisheries of the Republic of Indonesia. Preventing and Combating Fisheries Crime, Indonesia's Experiences and Challenges, presented in Bali on 7 December 2015, during the ATSEA-2 Regional Validation Workshop.

[11] Wagey, G.A., S. Nurhakim, V.P.H. Nikijuluw, Badrudin, and T.J. Pitcher. 2009. A study of Ilegal, Unreported and Unregulated (IUU) fishing in the Arafura Sea, Indonesia. Research Centre for Capture Fisheries, MMAF. Jakarta, 54 pp.

[12] Adhuri, D., Adrianto, L, and A. Wahyono. 2009. Konflik-Konflik Kenelayanan : Distribusi, Pola, Akar Masalah dan Resolusinya. Pusat Penelitian Kemasyarakatan dan Kebudayaan, LIPI.

[13] The ATS TDA will be updated as part of the ATSEA-2 project.

below. It is important to note that this characterization is based on species and, as such, there is some overlap as some fishing operations target more than one species.

a. Various *snapper fisheries*: Targeted by legal and illegal fishing by Australian (e.g., Western Australia Northern Demersal Scalefish Fishery operating in Australian Fishing Zone and Western Australia waters including inside the MOU Box[14] and targeting some of same gold band snapper species as Indonesians), Indonesian, and foreign vessels, sometimes referred to as 'ice-boats' targeting red snapper: (*Lutjanus malabaricus* and *erthropterus)* and gold band snapper (*Pristipomodies multidens)* and lesser extent marble hawkfish (*Cirrhitus pinnulats)*. Fleets originate from various ports including Kupang, Kei, and Aru Island chains, Merauke, Probolinggo, and East Java (Fox 2008[15]).
b. Various *Prawn/Shrimp* trawl fisheries, particularly in the Arafura Sea on the Indonesian side of the border and along the coast of Papua with key penaeid shrimp species (e.g., banana, tiger, king, endeavor shrimp, along with dozens of other shrimp species) are overexploited. These trawl fisheries also affect smaller demersal fish caught as bycatch and are discarded (Wagey et al. 2009; Wirasantosa 2009[16]).
c. Various *shark fisheries* (elasmobranches): Identified shared stocks between northern Australia and southern Indonesia include *Sphyrna lewini*, *Prionace glauca*, *Carcharhinus falciformis*, *Carcharhinus obscurus and Rhynchobatus* spp. (Blaber et al. 2009[17]; Ovenden et al. 2008[18]). There also appears to be overlap in Indonesian and Australian black tip shark fisheries and between the Indonesian trawl fisheries based in Merauke and the Australian trawl fisheries based in the Gulf of Carpentaria (Blaber 2009 et al). Due to their biology, elasmobranch species are highly vulnerable to fishing pressure. Shark fishing largely for fins is driven by external market demand, as shark fins continue to command highest prices in the SEA region. There are legal and illegal shark fishing, from national and foreign, as well as long- standing artisanal fisheries in Timor Sea operating under the 1974 MOU between Australia and Indonesia (by ethnic groups originating from various islands in Indonesia – e.g., Rote, Timor, Flores, Alor, Southeast Sulawesi, Wanci, Kaledupa, Tanimbars, Aru. Merauke region, Raas, Tondok). IUU fishing in Australian waters, commonly from artisanal boats originating from ports of Pepela, Kupang, Dobo, Saumlaki, and Merauke, but often having crews originating from other areas, such as NTT and South and Southeast Sulawesi, also is contributing to pressures on shark fisheries.

d. *Trepang* fisheries: namely artisanal fisheries operating legally inside the MOU Box area in the Timor Sea especially at Scott Reef. Inside the MOU Box there is a high probability that the stocks of many species are depleted, due to low densities below what would normally be acceptable under management. However there is no evidence as yet to suggest significant trends of decreasing density and the fishery continues to support livelihoods for hundreds of Indonesian fisher families (Prescott 2009[19]). In Indonesian waters there exist major gaps on stock status.

---

[14] The MOU Box, or sometimes the MOU 74 Box, refers to a rectangular tract of marine waters in the Timor Sea, lying within Australia's Exclusive Economic Zone that is subject to a 1974 memorandum of understanding, and subsequent agreements, between Australia and Indonesia.

[15] Fox, J.J. (2008) Legal and Illegal Indonesian Fishing in Australian Waters. Paper presented at the Indonesian Update 2008: Beyond Waters Edge managing an Archipelagic State, 19-20 September. ANU, Canberra

[16] Wirasantosa, S., S. Nurhakim, L. Adrianto, D. Nugroho, C. dos Santos Silva (2011)

ATSEA Thematic Reports on the Arafura and Timor Seas Region. Report prepared for the Arafura Timor Seas Ecosystem Action (ATSEA) Program. 263ps

[17] Blaber, S.J.M., C.M. Dichmont, W. White, R. Buckworth, L. Sadiyah, B. Iskandar, S. Nurhakim, R. Pillans, R. Amandari, Dharmadi, Fahmi, 2009, Elasmobranchs in southern Indonesian fisheries: the fisheries ,the status of the stocks and management options. In Rev. Fish Biol Fisheries; Published online 3 February 2009, DOI 10.1007/s11160-009-9110-9

[18] Ovenden, J.R., T. Kashiwagi, D. Broderick, J. Giles and J. Salini (2009) The extent of population genetic subdivision differs among four co-distributed shark species in the Indo-Australian archipelago. *B.M.C. Evolutionary Biology*. **9**: 40-58

[19] Prescott 2009, personal communication.

e. *Trochus fisheries*: trochus (sea snail) was a key target species in the past by Indonesians accessing the northwest coast of Australia, but recently appears to have declined possibly due to extremely low population densities and market demand internationally. Trochus is often gathered while fishers are collecting trepang on offshore reefs.

Alteration, degradation and destruction of coastal and marine habitats

18. Modification of coastal habitats has resulted in major changes in population structure as well as functional group composition, notably on coral reefs, and massive changes in ecosystem services of coral reefs, seagrass beds, and mangroves. For instance, the important nursery and feeding ground function of mangroves as well as seagrass beds for fish, marine mammals and marine turtles have been lost over extensive areas. Mangrove loss in Timor-Leste, for instance, has mainly been a result of harvesting for timber and fuel wood, and in some instances hinterland mangroves have been removed for the establishment of brackish water shrimp and/or fish ponds. Mangrove cover is relatively small in Timor-Leste and has been in steady decline, reducing by 80% from 9,000 ha in 1940 to 1,802 ha in 2008 (Boggs et al. 2009[20]), and mangrove ecosystems are confined mainly to the region between Tibar and Manatuto. Habitat modification and loss have also contributed to the decline in populations of marine mammals such as dugong. Habitat degradation has significant transboundary implications in terms of reduced fish recruitment and impacts on migratory species as well as on biodiversity throughout the region.

19. The ATS region includes some of the World's most unthreatened pristine reefs, i.e., within the North Australian Shelf LME; and some of the most highly threatened reefs, e.g., within the Indonesian Seas LME. Indonesia, second only to Australia in the total area of coral reefs that lie within its jurisdiction, has the largest area of threatened coral reef in the world, with overfishing and destructive fishing pressures driving much of the threat, followed by watershed-based pollution and coastal development (Burke et al. 2011). The impacts from these threats are being compounded by climate change (Carpenter et al 2008). Contrast this with Australia's coral reefs which are the world's least threatened, with only 14% threatened by local activities and just over 1% at high or very high threat (Burke et al. 2011). Although the coral reefs of eastern Indonesia may be in better condition than those in the west, they are still declining at a rapid rate.

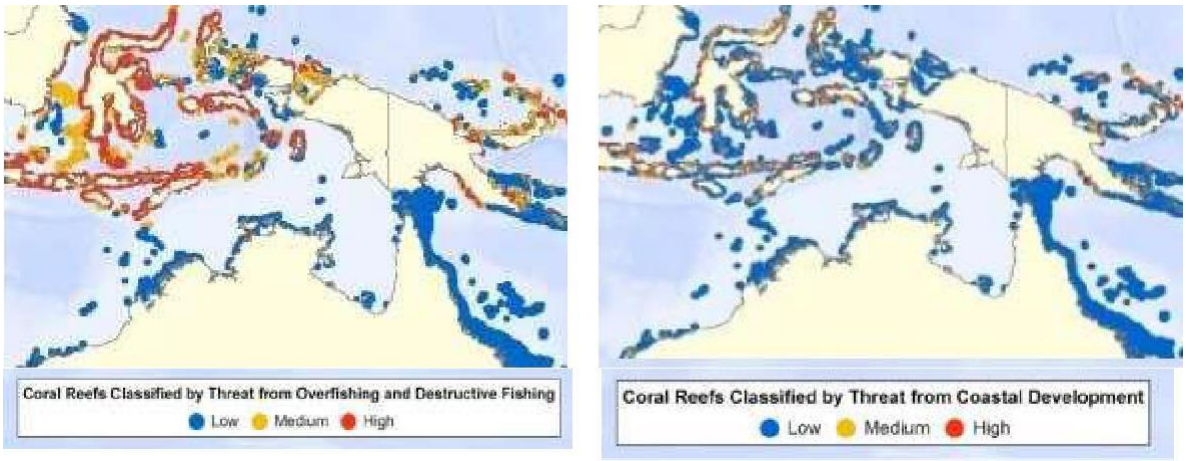

Figure 2: Reefs at Risk in the Arafura and Timor Seas[21]

[20] Boggs, G, Edyvane, K, de Carvalho, N, Penny, S, Rouwenhorst, J, P.Brocklehurst, Cowie, I, Barreto, C, Amaral, A, Smit, N, Monteiro, J, Pinto, P, Mau, R, Amaral, J & Fernandes, L 2009, Marine and Coastal Habitat Mapping in Timor-Leste (North Coast) -Final Report. Ministry of Agriculture and Fisheries, Government of Timor–Leste

[21] Burke, L., K. Reytar, M. Spalding, and A. Perry. 2011. Reefs at risk revisited in the Coral Triangle., Washington, DC: World Resources Institute, 72 p.

20. In a 1999 survey, an estimated 31.8% of reefs in the far eastern region were found to be in poor condition, 10.0% in excellent condition, but only one location (Lucipora Islands, Maluku) was reported to be in excellent condition (Alongi et al 2011[22]). Sites in Nusa Tenggara east of Lombok (Komodo, Rinca, Sumbawa) were reported to be in reasonable condition, although the Wetar Islands in the far east were reported as only fair, a condition attributed to gold mining (Alongi et al 2011). Central Maluku reefs also appear to be in reasonable condition apart from the Kai Islands (Alongi et al 2011). Seagrass has declined in the ATS region, as a result of major port and shopping activities, cyclone induced erosion, floods and land based runoff from adjacent extractive mining waste and agricultural areas. These threats cause increased sediment/turbidity and pollutants associated with runoff produced after monsoon rains. Data is sparse for most areas of Timor-Leste and eastern Indonesia (ATSEA 2012).

Unsustainable harvesting

21. Unsustainable harvesting, illegal harvesting, and bycatch are having significant impacts on the populations of key marine species in the ATS region, particularly globally threatened coastal marine megafauna including migratory, rare, and threatened species of turtles, dugongs, seabirds/shorebirds, sea snakes, cetaceans, sharks and rays. Sea turtle populations are also declining due to exploitation and habitat degradation resulting from coastal construction, commercial trade and mortality through incidental capture in fisheries, which have accelerated the decline of sea turtle populations. The area encompassing northern Australia and eastern Indonesia supports significant direct harvest of green turtles, and currently represents a significant threat to the conservation of Australian green turtle stocks[23]. The key threat to the green turtle in Australian waters has been the collapse of the stocks of Raine Island, where habitat changes and climate change are exposing adults and eggs to increased danger.

22. In Timor-Leste, illegal turtle harvesting for meat and shell remains a major issue. Populations of hawksbill turtle face major threats from direct harvest, with the northeast Australian hawksbill turtle stock in decline. Dugongs are declining due to bycatch mortality, entanglement in lost or discarded nests, as well as loss of habitat, especially seagrass beds. In Papua New Guinea, in the South Fly District area, there remain pressures from traditional hunting for both marine turtles and dugongs. Elasmobranchs are declining due to target fisheries, primarily by artisanal fishers using nets, long-lines and drop-lines, but also by industrial fish trawlers.

23. The ATS region is a migratory pathway for a number of protected and endangered and endemic species, including cetaceans such as whales and dolphins, dugongs, turtles, whale sharks – technically elasmobranchs but included in this group due to their long migratory range and protection similar to other migratory species) moving between northern Australia, Indonesia and Timor-Leste and further north into Savu and Banda Seas in eastern Indonesia. There is a major lack of information on cetacean depredation (Kahn 2002[24]) and links to cetacean threats from other fisheries such as tuna longline fisheries in Indonesia. These species are protected at various levels, as part of multilateral agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on the Conservation of Migratory Species of Wild Animals (CMS).

24. Declines in populations of these migratory marine species are attributed to fisheries, i.e., through excessive bycatch such as turtles in trawling activity in Arafura Sea, and death from various forms of marine debris, through entanglement or ingestion, a major problem in the ATS region. For

---

[22] Alongi, D.M. (editor), Edyvane, K., do Ceu Guterres, M.O., Pranowo, W.S., Wirasantosa, S. and Wasson, R. (2011) Biophysical Profile of the Arafuraand Timor Seas. Report prepared for the Arafura Timor Seas Ecosystem Action (ATSEA) Program. 32ps

[23] Alongi, D.M. (editor), Edyvane, K., do Ceu Guterres, M.O., Pranowo, W.S., Wirasantosa, S. and Wasson, R. (2011) Biophysical Profile of the Arafuraand Timor Seas. Report prepared for the Arafura Timor Seas Ecosystem Action (ATSEA) Program. 32ps

[24] Kahn, B., 2002, Indonesia's migratory corridors for large marine life: scientific and management perspectives. Keynote presentation: Konferensi Nasional III Pengelolaan Sumberdaya Pesisir dan Lautan Indonesia, Bali 21 – 24 May 2002

example, in northern Australian waters some of the largest derelict nets to be found, estimated to weigh around 5 tons and measure 4 km in length, are believed to be nets similar to those found in northern Australia may come from Javanese tuna fisheries, Thai shark driftnet fishery, the Timor Leste gill net fishers, or IUU fishing (Wilcox et al., 2014[25]).. Other derelict nets are believed to originate from Indonesian, Korean, and Chinese vessels. Degradation of feeding and breeding habitats due to various human activities and development and declines in availability of food resources and climate change also threaten populations.

25. Root causes of declines in populations of migratory marine species relate to poor enforcement of existing regulatory frameworks and management arrangements; insufficient information on the biology and ecology of migratory species; lack of awareness of status and conservation significance; poor information sharing, research, and collaboration among littoral nations; absence of a regional approach to migratory species conservation and management; and nutritional and cultural reliance on migratory species.

26. Cyanide fishing occurs occasionally, and dynamite fishing was common prior to Timor-Leste independence, however these methods are secondary to the use of main forms of fishing today that use nets and spear guns. Current fishing techniques in Timor-Leste are not particularly destructive to major fish stocks or the supporting habitats but an increase in fishing pressure would bring more competition within the fishing sector, leading to the adoption of more sophisticated fishing methods, such as bigger gill nets and small trawls which can be destructive to the existing mainly pristine habitats (UNIQUEST 2010[26]). In Indonesia, fishing methods involving bombing, poisoning, utilizing electricity, and other illegal methods have caused damages to the marine environment and fish habitat. Destructions in coral reefs due to illegal fishing, bombing, and poisoning have been reported at an alarming magnitude. One of the attempts the Indonesian government is taking to curb coral reef destruction is the Coral Reef Rehabilitation and Management Program (COREMAP). Phase I of COREMAP began in 1998 and included 5 provinces in the western and eastern Indonesia. In 2014, a new project, USD 53 million, COREMAP-CTI [27] (Coral Triangle Initiative), was approved with the aim of institutionalizing the COREMAP approach of a viable, decentralized and integrated framework for sustainable management of coral reef resources.

27. Fisheries and other marine resources in the South Fly District of Papua New Guinea have been poorly managed over the years, especially prior to the introduction of trade and markets for these resources. The Government of Papua New Guinea, through the National Fisheries Authority (NFA), have implemented specific fishery management plans for fish and fishery resources throughout Papua New Guinea including those found within the Torres Strait and the adjacent Gulf of Papua waters, but not for artisanal fisheries, which are predominant in the South Fly District. Increase in local population due to expansion of mining activities in the Western Province, coupled with significant increases in demand for fish and fishery products have exerted pressure on local resources and this has resulted in the overharvesting of certain marine resources such as bêche-de-mer. A nation-wide closure on bêche-de-mer fishing was issued in 2009, but enforcement is weak and exploitation continues due to high-value demand from foreign markets.

Climate variation and change including extreme weather events

28. Low profile coasts, shallow continental shelves and macro-tidal conditions mean that the coastal and marine environments of the ATS region are particularly vulnerable to the impacts of climate

---

[25] *Wilcox, C., et al. (2014). "Understanding the Sources and Effects of Abandoned, Lost, and Discarded Fishing Gear on Marine Turtles in Northern Australia." Conservation Biology DOI: 10.1111/cobi.12355*

26 UNIQUEST 2010, Final report prepared for Asian Development Bank (ADB), RETA 6471: Strengthening Coastal and Marine Resource Management in the Coral Triangle of the Pacific – Phase 1, Volume 3. Available from http://www.adb.org/sites/default/files/project-document/63640/42073-01-reg-tacr-03.pdf

[27] Source: http://www.worldbank.org/projects/P127813/coral-reef-rehabilitation-management-program-phase-iii?lang=en

change. Projections of global mean sea level by 2100 range from 0.28-0.61 m for the RCP2.6 scenario to 0.53-0.63 m under the RCP8.5 scenario[28]. In the coastal area of West Papua, the trend in sea level rise has been predicted to be between 0.75 - 0.765 cm/year[29]. Such a rise in sea level is expected to increase the salinity of coastal groundwater as aquifers are affected by salt water intrusion. Predicted rises in sea level, ranging up to nearly 0.8 m by the end of the century, are also forecasted to have adverse impacts on rocky intertidal, mud- and sand-flats, coral reef, seagrass, and mangrove communities.

29. With respect to coral reef ecosystems, coral bleaching[30] is a growing concern. The pattern of coral bleaching across the ATS region is unlikely to be uniform owing to spatial and seasonal differences in sea surface temperatures and currents, and the influence of the Indian Pacific Warm Pool. There have been at least seven major coral bleaching events in the adjacent Coral Triangle between 1979 and 2005, and all have been associated with the ENSO cycle[31]. Coral bleaching strongly affects local and regional species distributions and densities of nearly all hermatypic corals; species replacement may also occur resulting in range shifts in the most affected coral species. Climate change is also threatening key marine species, such as marine turtles and sea snakes.

30. Timor-Leste has been classified as extremely vulnerable to climate change impacts such as increased climate variability and increased frequency of climate-related natural hazards such as flooding and droughts (Weaver 2008[32]).

31. Mangrove photosynthesis may increase leading to increased growth of forests under higher temperature scenarios. But, predicted impacts climate change are on balance negative, and such functional enhancement of mangrove forests may be counter acted by responses to other changes in climate, such as ocean acidification and extreme events (rainfall, cyclones). In the ATS region, ocean acidification is expected to lead to declining numbers of calcareous organisms, most spectacularly, of coral reefs. Pelagic and other benthic communities will also likely be affected as a lowering of pH will affect the metabolic energy balance of many marine organisms. The community composition of plankton might also be altered because pteropods, foraminiferans, coccolithophores, and crustaceans, such as pelagic copepods and shrimp, would find it much more difficult to calcify under lower pH conditions. The same is envisaged for benthic communities on both hard and soft substrates, with the loss of some species of echinoderms, molluscs and crustaceans, especially many commercially-viable and artisanal species. More intense storms and cyclones would possibly result in fewer organisms less able to tolerate and adapt to shallow tropical waters, especially intertidal organisms, and will likely result in scouring of many biota from hard substrates. Conversely, drier conditions could increase salinities to possibly intolerable levels for many species. Either scenario would lead to a decline in densities as well as species diversity.

32. Changes to fisheries will be only one of the manifestations of climate change, with the simultaneous increase of fishers and vulnerabilities to other climatic shocks and stresses such as cyclones, floods, droughts, sea-level rise, erosion and fluctuations in temperature and rainfall levels (Islam et al., 2014[33]). Such changes will also have a profound effect on other industries

[28] Intergovernmental Panel on Climate Change (IPCC) AR5 Working Group I, Projections of Sea Level Rise, Gregory J., 2013. RCP: representative concentration pathway.

[29] Source: ATSEA, 2012. Transboundary Diagnostic Analysis for the Arafura and Timor Seas Region

30 Coral bleaching: when corals are stressed by changes in conditions such as temperature, light, or nutrients, they expel the symbiotic algae living in their tissues, causing them to turn completely white (www.oceanservice.noaa.gov).

[31] Alongi, D.M. (editor), Edyvane, K., do Ceu Guterres, M.O., Pranowo, W.S., Wirasantosa, S. and Wasson, R. (2011) Biophysical Profile of the Arafuraand Timor Seas. Report prepared for the Arafura Timor Seas Ecosystem Action (ATSEA) Program. 32ps

[32] Weaver, L. (2008) Assessing Management Challenges and Options in the Coastal Zone of Timor-Leste. Griffith Centre for Coastal Management Research Report No. 86. Griffith University.

[33] Islam M.M., Sallu S., Hubacek K. & Paavola J. (2014) Vulnerability of fishery-based livelihoods to the impacts of climate variability and change: insights from coastal Bangladesh. Regional Environmental Change, 14, 281-294

directly dependent upon natural resources, such as land agriculture, aquaculture, and tourism. In a subsistence farming context, impacts of climate change on agriculture are likely to result in flow-on effects on fisheries. Interviews with the fishing communities of Timor-Leste, for example (Larson, 2015[34]), highlighted community perceptions that the impacts of climate change will most directly affect agriculture, but that this will have direct flow-on effects on fisheries. The most concerning impact for fishing communities was reduced production of staple crops such as rice and maize which rely on the timing of the wet season. It was suggested that the indirect impact of reduced agricultural production would be a greater reliance on marine resources.

33. Rising sea levels, coastal erosion and extreme events will also adversely affect the built environment, such as road and port infrastructure, and resulting in complex, interactive impacts across a range of industries and activities. More extreme weather events will result in destruction of assets, including productive ones such as boats and fishing gear, increasing financial pressures on both families and societies. Changes in rainfall extent and distribution will result in less reliable harvest, increasing prices of food items and creating food insecurity. Thus, livelihoods and the wellbeing of those engaged in fishing will be changing through a complex array of climate change impacts, not only those related to the fisheries themselves (Stoeckl et al., 2016[35]).

Pollution from land-based and marine-based sources

34. Due to the general lack of major urban settlements in the ATS region, except for those in and around Merauke in Papua Province in eastern Indonesia, pollution impacts are largely attributed to poor catchment practices, mining activities, offshore oil and gas exploration and exploitation, and the effects of fisheries, including marine debris, which partly consists of discarded fishing nets and other fishing gear. River system siltation, primarily from deforestation is causing sediment dispersion to inshore coastal marine zones. Fertilizers and pesticides being used on farms within watershed catchments are also carried down to coastal areas, disrupting the nutrient cycle and introducing persistent toxic substances to benthic communities in estuaries and inshore ecosystems, subsequently distressing biodiversity within these areas (ATSEA 2012[36]). Many of the rural ATS coastal communities are impoverished and isolated, depending largely on subsistence farming and fishing because of restricted connectivity to urban centers and limited access to markets. Human impacts can be expected to grow significantly with population growth and resultant increases in economic activities in the ATS. Industrial development, tourism, and urbanization can exacerbate the pollution of coastal waters from untreated domestic and industrial waste. The need to increase agricultural productivity in order to improve food security and feed a growing nation will require additional land conversion and an increase in fertilizer use (UNIQUEST 2010)[37].

35. Potential sources of marine pollution in the ATS region include marine debris, marine based pollution from oil and gas activities, as well as waste from fishing and shipping vessels. These activities affect water and sediment quality, habitats and marine biodiversity in the Arafura Sea, especially in the area between Aru Islands and Papua and around Rote Ndao. Impacts are currently at a relatively small scale and confined mostly to urban areas. An expansion of port operations and the construction of a new international port and a major liquid gas terminal proposed for the southern coast of Timor-Leste would necessitate land reclamation and cause

[34] Larson S (2015) Building shoreline resilience of Timor -Leste to protect local communities and their livelihoods: Gender report; USAID Climate Change Adaptation Project Preparation Facility for Asia and the Pacific, Bangkok

[35] Stoeckl N, Hicks C, Larson S, Marsh H, Pascoe S and Thomas M (2016) Socioeconomic impacts of changes to marine fisheries and aquaculture that are brought about through climate change; in "The Impact of Climate Change on Marine Fisheries and Aquaculture" Ed. Phillips and Pérez-Ramírez, in print

[36] ATSEA transboundary diagnostic analysis, 2012

37 UNIQUEST 2010, Final report prepared for Asian Development Bank (ADB), RETA 6471: Strengthening Coastal and Marine Resource Management in the Coral Triangle of the Pacific – Phase 1, Volume 3. Available from http://www.adb.org/sites/default/files/project-document/63640/42073-01-reg-tacr-03.pdf

pollution of the sea from increased shipping. The impacts from the Montaro spill of 2009[38] are fresh on the minds of local residents, and the risk for similar incidents is growing, as oil and gas exploration expands and shipping lanes become busier.

36. Marine debris, particularly from fishing activities is an emerging problem worldwide and in the region. In 2012, an in-depth review[39] of reports on marine debris made by the Secretariat of the Convention on Biological Diversity (CBD) in collaboration with the GEF Scientific and Technical Advisory Panel (STAP), impacts of marine debris globally were reported for 663 species, which was an approximate 40% increase since the last review was completed in 1997. The reviewed reports indicated that all known species of sea turtles, roughly half of all species of marine mammals, and one-fifth of all species of sea birds were affected by entanglement or ingestion of marine debris. The CBD-STAP report also outlines how marine debris does not only impact biodiversity, but also leads to adverse socio-economic consequences, contributing to economic losses to commercial fishing, shipping, and other marine industries, as well recreation and tourism. Transported by wind and ocean currents, marine debris is very much a transboundary problem, including in the ATS region.

37. Derelict fishing gear, often referred to as "ghost nets" is recognized as a threat to marine wildlife (Macfayden et al. 2009[40]) as once lost, they can continue to entangle wildlife indiscriminately (Matsuoka et al. 2005[41]; Gilardi et al. 2010[42]), leading to drowning, severe lacerations, impacting on diving and feeding etc. (Ceccarelli 2009[43]; Macfayden et al. 2009; Gilardi et al. 2010). Derelict fishing gear causes mortality in many species including pinnipeds, cetaceans, marine turtles, seabirds, cephalopods, fish, crustaceans, corals, and sponges (Macfayden et al. 2009; Gilardi et al. 2010; Gilman et al. 2010[44]). Turtles, in particular, are affected by ghost nets due to their tendency to use floating objects for shelter and as foraging stations (Kiessling 2003[45]; White 2006[46]). Wilcox et al. (2013[47]) reported that the northern Australia coastline has one of the highest densities of derelict gear that washes ashore globally: up to 3 tons per kilometer annually. Based on oceanographic modeling, these nets likely originate from fisheries operating in the Arafura and Timor Seas, to the north of Australia (Gunn et al. 2010[48]; Wilcox et al. 2013). This region supports globally significant populations of internationally threatened marine fauna, including 6 of the 7 extant marine turtles.
Ghost nets continue to accumulate on Australia's northern shore due to both legal and illegal fishing with over 13,000 nets removed since 2005. This is an

---

[38] On 21 August 2009 the Montara wellhead platform drill rig owned by PTTEP Australasia suffered a well head accident in the Timor Sea off the northern coast of Western Australia, resulting in the uncontrolled discharge of oil and gas. The discharge of oil and gas was stopped on 3 November 2009.

[39] Secretariat of the Convention on Biological Diversity and the Scientific and Technical Advisory Panel—GEF (2012). *Impacts of Marine Debris on Biodiversity: Current Status and Potential Solutions*, Montreal, Technical Series No. 67, 61 pages.

[40] Macfadyen, G., Huntington, T., Cappell, R., 2009. Abandoned, Lost and Otherwise Discarded Fishing Gear. UNEP Regional Seas Reports and Studies, No. 185; FAO Fisheries and Aquaculture Technical Paper, No. 523. UNEP/FAO, Rome

[41] Matsuoka, T., T. Nakashima, and N. Nagasawa. 2005. A review of ghost fishing: scientific approaches to evaluation and solutions. Fisheries Science 71:691–702.

[42] Gilardi, K. V. K., D. Carlson-Bremer, J. A. June, K. Antonelis, G. Broadhurst, and T. Cowan. 2010. Marine species mortality in derelict fishing nets in Puget Sound, WA and the cost/benefits of derelict net removal. Marine Pollution Bulletin 60:376–382

[43] Ceccarelli, D. M. 2009. Impacts of plastic debris on Australian marine wildlife. Department of the Environment, Water, Heritage and the Arts, Canberra, Australia

[44] Gilman, E., et al. 2010. Mitigating sea turtle by-catch in coastal passive net fisheries. Fish and Fisheries 11:57–88.

[45] Kiessling, I. 2003. Finding solutions: derelict fishing gear and other marine debris in northern Australia. Department of Environment, Canberra

[46] White, A. T., P. M. Alino, and A. T.Meneses. 2006. Creating and Managing Marine Protected Areas in the Philippines. Fisheries Improved for Sustainable Harvests Project, Coastal Conservation and Education Foundation, Inc., and Marine Science Institute— University of the Philippines, Cebu City, Philippines. 83 p

[47] Wilcox, C., B. D. Hardesty, R. Sharples, D. A. Griffin, T. J. Lawson, and R. Gunn. 2013. Ghostnet impacts on globally threatened turtles, a spatial risk analysis for northern Australia. Conservation Letters 6:247–254

[48] Gunn, R., B. D. Hardesty, and J. Butler. 2010. Tackling 'ghost nets': local solutions to a global issue in northern Australia. Ecological Management and Restoration 11:88–98

important and ongoing transboundary threat to biodiversity in the region that requires attention from the littoral ATS countries (Wilcox et al 2014[49]).

BARRIERS TO SUSTAINABLE MANAGEMENT OF THE ATS

38. The key barriers to sustainable management in the ATS region are described below:

Lack of a strong regional mechanism for collective regional action and transboundary management of the ATS

39. Transboundary cooperation in the ATS region has been generally inconsistent over the years, including periods of political and even military conflict between some of the littoral countries. In 2003, representatives from governmental and non-governmental stakeholders working on sustainable marine development issues came together and formed the Arafura and Timor Seas Experts Forum (ATSEF), a Type II partnership[50]. ATSEF included members from each of the four littoral nations of Australia, Indonesia, Papua New Guinea, and Timor-Leste, and has provided a platform for sharing information, particularly among research and scientific organizations. While collaboration under ATSEF has provided valuable networking opportunities, there were limitations, due to irregular stakeholder involvement, e.g., for RPoA-IUU Coordination Committee Meetings, and uneven capacities among the countries. Although it did provide an informal platform for identifying cooperative research agendas and arrangements, due to its informal status it suffered from inadequate financial resources, insufficient equipment, and trained staff, as well as weak stakeholder participation. Therefore, the SAP stipulates development of a new, more efficient governance arrangement that will replace the previous ATSEF structure.

40. Improvements in the ATS region on addressing environmental concerns will depend on a range of governance arrangements, including internationally, nationally and locally. Improved welfare of the people in the area should be the main objective of governments and it is this common goal that provides the foundation for all governments in the Arafura Timor Seas to cooperate to improve the management of those seas. Nevertheless, management challenges are immense partly due to the huge differences in the social, economic, cultural and political conditions of each country in the region.

Weak inter-sectoral coordination and law enforcement at national and local level

41. In Indonesia, provincial and district governments are responsible for management of environmental resources according to *Indonesian Law No. 23/2014 on Regional Governance;* this law has reversed some of the autonomy previously assigned to district levels as part of the earlier decentralization efforts initiated in 2000. At the time of project preparation, there was a general sense of uncertainty on how implementation of Law No. 23/2014 would impact subnational governance in Indonesia. Government Regulation (PP) No. 19/2010 stipulates that as representative of the Central Government, the Governor is responsible for coordinating implementation of governance activities within Districts. *Minister of Home Affairs Regulation (Permendagri) No. 30 /2010 concerning Guidance of Marine Resources Management*, gives local government regulatory powers for management of ocean resources. Consequently, there are several challenges faced by local government (district and/or provincial) with respect to natural resource management, among others:
(i) coordination on planning and development of marine

[49] Wilcox, C., G. Heathcote, J. Goldberg, R. Gunn, D. Peel & B. D. Hardesty. 2014. Understanding the sources and effects of abandoned, lost, and discarded fishing gear on marine turtles in northern Australia. Conservation Biology 29: 198-206

[50] First proposed at the Johannesburg World Summit on Sustainable Development in 2002, Type II partnerships are characterized by collaborations between national or sub-national governments, private sector actors and civil society actors, who form voluntary transnational agreements in order to meet specific sustainable development goals.

and coastal resources and environmental management among sectors; (ii) availability of budget, human resources and institutional capacity; (iii) balancing of economic values and environment consideration; and (iv) development on policy, law and regulation concerning marine and coastal resources utilization.

42. In general, the multi-layered nature of governance in Indonesia causes a complexity in the relationship among the formal institutions, in addition to the growing demand of the role and participation from non-state actors. At the central level, there exists the Ministry of Marine Affairs and Fisheries, Ministry of Environment and Forestry, the National Planning Development Agency, and the Navy. At the local level, there exists the fisheries office, the regional planning office, and the regional environmental office, which are responsible to the head of local government (governor and/or regent/mayor) but not to the corresponding national institutions at the local level. In Papua Province, the role of academic institutions and global NGOs, such as World Wide Fund for Nature (WWF) and The Nature Conservancy (TNC) is paramount, as well as the local customary council, often supported by private sector enterprises, such as Freeport Mining, in the form of corporate social responsibility contributions. There is also evidence of strong engagement of local fisheries communities in regions that have long-standing marine culture. However, the role of fisheries industry association is limited, mostly because major companies can have direct access to the local government, without the intermediary of such associations.

43. National regulations in Indonesia do not fully reflect the issues faced at the local level, while the local governments still lack of capacity to implement frequently changing policies. This is either because lack of resources, or due to unclear share of responsibilities across the subnational administrations. Therefore, various laws and policies set out at the national level fail to be translated into detailed, technical, implementable regulations at the local level. New rules are often disseminated inefficiently, causing the failure of the concerned parties to recognize and understand the relevant legislation. Many people and community leaders at the grass-root level fail to acknowledge existing laws that may contradict their traditional practices, for example regarding the catchment of turtle.

44. Overlapping jurisdictions and authorities, e.g., between central and local government units, between different local governments, or even among institutions in the same region, represent the most pressing governance issue. For example, the division of the authority to grant fisheries licenses can cause problems, and we found that licenses in some regions are issued without the requisite authority. These practices create uncontrolled business consent, which threatens stocks of available fishes.

45. Poor coordination also occurs in law enforcement, for example there are often conflicts among the naval forces, the fisheries investigation units from the central government, and the local government enforcement agencies regarding IUU fishing. This in turn could foster a forum for bribery and extortion, which eventually undermines the effectiveness and trust of law enforcement. Coordination shortcomings also occur because some local government officials lack sufficient understanding about the rules enacted by the central government.

46. In Timor-Leste, the general situation of the environment sector remains weak and the capacity to overcome existing problems is limited both in the short to medium term. Challenges within the environmental sector include: (i) incomplete environmental laws and regulation related to environmental management and weak implementation and enforcement of existing ones; (ii) insufficient financial resources allocated; (iii) limited collaboration between government agencies responsible, in particular between the Ministry of Agriculture and Fisheries (MAF) and the Ministry of Commerce, Industry and Environment; (iv) limited human resources and expertise; and (v) lack of information and reporting systems, and lack of capacity in monitoring and evaluation.

47. Another important issue in Timor-Leste is the overall remoteness and limited access to the south coast, bordering the Timor Sea. Much of the development over the past 10-15 years has occurred in the north, in relatively close proximity to the capital, Dili. With the expansion in the oil and gas sector, there are emerging infrastructure construction and economic growth in the south which require qualified subnational resource managers to design and implement integrated approaches to management of the coastal and marine resources there.

48. The part of Papua New Guinea's Exclusive Economic Zone (EEZ) that falls within the ATS has experienced high levels of exploitation of many localized subsistence and commercial coastal and marine species, such as lobster, prawns, and sea cucumber (bêche-de-mer). This occurs due to unsustainable fishing practices by subsistence artisanal and industrial fishers, and including IUU foreign fishing activity inside the EEZ. There are also concerns of poaching and cross border trade of bêche-de-mer (sea cucumber), shark fins, freshwater turtles, and other resources around the border with Indonesia (Papua Province), inside the Tonda Wildlife Management Area. Pressures on coastal resources have also increased in recent years due to the influx of workers employed by the Ok Tedi Mine (copper and gold) in the North Fly District. The mining activities have also resulted in environmental impacts, as discharges and runoff from mine tailings are impacting the Fly River watershed.

49. One of the key challenges in Papua New Guinea with respect to management of artisanal fisheries, such as those exploited by the South Fly District communities, is limited capacities among local level government units. The national government has issued policies aimed at decentralizing fisheries governance to provincial and district level administrations, but capacity limitations have constrained progress with policy implementation.

Lack of access to environmental planning tools, technologies and approaches for sound environmental management of the ATS

50. Some progress has been made in the region in introducing integrated approaches, such as integrated coastal management (ICM), e.g., collaboration with the Partnership in Environmental Management for the East Asian Seas (PEMSEA). However, ICM interventions have mainly focused on the more populous areas of the Indonesian Seas, and not the more remote ATS region, although the pressures on the coastal environment and its globally significant biodiversity are mounting, due to growing populations coupled with climate change. While attention is being focused on ICM for a number of urban centers in the ATS, the challenge remains the availability of baseline data as well as the capacity of district and provincial governments to implement ICM plans. With regard to enabling capacities, as for most developing countries, the ATS countries are reliant on external sources of funding and expertise to meet their capacity development needs. While these have been effective in building a core of skilled managers and practitioners in each country, scaling up the implementation of ICM and other integrated approaches implies increasing and continuing demands qualified managers and practitioners, as well as expertise in social, natural and applied sciences.

51. As bordering seas are becoming better surveilled, IUU fishing is moving into the ATS where incentives for sustainable fisheries are lacking, as fishery value chains are not well documented and certification through, for example the Marine Stewardship Council (MSC) system, is in its infancy. In addition, the ecosystem approach to fisheries management (EAFM) is poorly understood by local authorities and communities. There has historically also been poor data collection and research on the ATS ecosystems to inform management decisions, and all this combined has led to the application of technologies and approaches to coastal and marine management that are not environmentally friendly and lack resilience to climate change. There have been positive advances made in recent years, e.g., through the work of the Arafura and Timor Seas sub-regional group as part of the RPoA-IUU, but more coordinated transboundary action is needed.

Insufficient baseline data

52. Overall there is limited baseline information available on the biophysical and socio-economic conditions in the ATS region. The ATS transboundary diagnostic analysis (TDA) completed in 2012 as part of the first phase of the ATSEA program was successful in filling some data gaps, but the TDA process is largely a compilation of secondary data, although there was some primary data collected from two research cruises.

53. Fisheries data are generally incomplete or inaccurate, or perhaps absent altogether, which makes the assessment of stock status unreliable or essentially impossible. There are also few studies available specifically for the ATS region on issues concerning nutritional dependence and personal choices among dependent communities in the ATS region; the status of resources versus livelihood strategies; poverty, income and wealth distribution in more remote regions of ATS; climate change impacts on local livelihoods and food security for marine dependent communities; patron-client relations and markets and value chains for various fisheries in ATS region; local institutions and institutional analysis in particular at regional versus district levels.

54. There are gaps related to the drivers, trends, and characteristics of IUU fishing and data on catch levels. There is a clear need to identify the drivers and impacts of IUU fishing on local livelihoods in certain coastal areas, particularly in eastern Indonesia in the provinces of Maluku, NTT, and Papua.

55. Uncertainties also relate to the reliability of available scientific information. For example, some resource estimates state that stocks are badly depleted and the threat is through overfishing but scientifically this has not actually been proven. Thus there is a need for precaution – one of the foundational principles of EAFM. There appears to be reasonable information on shared genetic species but more work needs to be done at the biological level. There are shared genes that may only evidence infrequent exchange and functional sharing where fish more routinely cross the boundary at some point in their life. It is the latter that matters most and is least understood. Various collaborative research projects have been undertaken on potentially shared stocks, e.g., for snapper, tuna, and sharks, but there is a need to review these projects and activities – something that will be done in ATSEA-2, as part of the process of updating the ATS TDA.

BASELINE SCENARIO

Regional, national and local governance:

56. The governance baseline for the ATSEA program is the ATSEF, which was established in 2003 and since its inception funded by the four participating countries and UNDP. The GEF agreed in 2009 to fund the first phase of the ATSEA program, with cofinancing support from the governments of Indonesia, Timor-Leste, and Australia, and from UNDP. UNDP served as the implementing agency. ATSEA has completed a Transboundary Diagnostic Analysis (TDA) for the Arafura and Timor Seas (ATS) that was approved by the Project Board and published in 2012. This was followed by development of a Strategic Action Program (SAP) that was adopted at the ministerial level on 15 May 2014 by Indonesia and Timor-Leste and Australia's Ambassador to Indonesia, as well as National Action Programs (NAPs) for Indonesia and Timor-Leste. The SAP responds to the findings of the ATS TDA. The 10-year vision for the ATS and the long-term objective of the SAP is 'to promote sustainable development of the Arafura-Timor Seas region to improve the quality of life of its inhabitants through conservation and sustainable management of marine-coastal ecosystems. This corresponds to the desired status of the ATS ecosystem, which will be pursued through achievement of five medium-term environmental quality objectives:

- Recovering and sustaining fisheries;
- Restoring degraded habitats for sustainable provision of ecosystem services;
- Reducing land-based and marine sources of pollution;

- Protecting key marine species;
- Adaptation to the impacts of climate change.

57. Papua New Guinea participated in the TDA exercise through the allocation of resources from the foundational phase of the ATSEA project. A Papua New Guinea representative attended project board meetings in 2011 and 2012; however, the participation was not sustained into the formulation of the SAP for various reasons. With the confirmed participation of Papua New Guinea in the second phase of the ATSEA program, the transboundary priority actions formulated in the updated SAP will be representative of the entire ATS region.

58. The terminal evaluation of ATSEA conducted in July 2014 reinforced the importance for sustained implementation of the SAP. The report indicated an overall performance of Satisfactory with the key intended outputs reasonably achieved. From the point of view of country ownership, the project is rated highly satisfactory, culminating with the acceptance of the TDA and the ministerial signing of the SAP in May 2014. The ATSEA program is well anchored in other regional projects and initiatives that the ATSEA-2 project will build on and develop synergies with, especially the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF). The ATS SAP shares the same general objectives as the Regional Plan of Action (RPoA) of the CTI and CTI National Plans of Action (NPoAs) for Indonesia and Timor-Leste, and geographically, the implementation areas of the two initiatives overlap. The actions and activities in the ATS SAP are aligned with, and can serve to give effect to, the CTI RPoA and NPoAs. All four ATS littoral countries, including Australia as a partner to the CTI, will ensure that their engagement in the two forums is well coordinated. Close collaboration with the CTI working groups on fisheries, marine protected areas (MPAs), threatened species, as well as CTI-CFF permanent secretariat will be established.

59. The baseline of weak inter-sectoral coordination and collaboration, and law enforcement at national and local level has been analyzed in the SAP and NAPs that were developed by the first phase of the ATSEA program. These propose actions and activities that will bring about institutional strengthening and policy reform in support of integrated and ecosystem-based management of the ATS. However, without further donor support at regional and national levels to overcome implementation barriers, the SAP as well as the NAPs will remain only weakly implemented.

60. For Australia, the objectives and actions of the SAP will inform the implementation of established plans and policies, including Marine Bioregional Plans for the north and northwest regions, management plans for Australia's MPA network, and threatened species recovery plans. Australian strategies and plans can also provide a resource for the work to be delivered under ATSEA. In their cofinancing commitment letter, the Government of Australia has outlined key activities being undertaken at national level that support the ATSEA-2 project and the overall achievement of SAP objectives.

Environmental Management:

61. The baseline for the fisheries component of the ATS SAP and fisheries related activities in the ATSEA-2 project is the Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region (RPoA-IUU[51]). The objective of the RPoA-IUU is to enhance and strengthen the overall level of fisheries management in the region, in order to

51 The Regional Plan of Action (RPoA) to Promote Responsible Fishing Practices Including Combating Illegal, Unreported and Unregulated Fishing in the Region was endorsed in 2007 by Ministers responsible for fisheries from eleven countries: Australia, Brunei Darussalam, Cambodia, Indonesia, Malaysia, Papua New Guinea, Philippines, Singapore, Thailand, Timor-Leste and Vietnam. Four regional fisheries organisations provide technical advice and assistance, i.e., FAO/Asia-Pacific Fishery Commission (APFIC), Southeast Asian Fisheries Development Centre (SEAFDEC), InfoFish and Worldfish Center. http://rpoaiuu.org

sustain fisheries resources and the marine environment, and to optimize the benefit of adopting responsible fishing practices. The actions under the RPoA-IUU cover:

- Conservation of fisheries resources and their environment;
- Managing fishing capacity, and combating illegal, unreported and unregulated (IUU) fishing in the areas of the South China Sea, Sulu-Sulawesi Seas (Celebes Sea) and the Arafura-Timor Seas.

62. The ATS littoral countries are all members of the RPoA-IUU, which includes an Arafura-Timor Seas sub-regional group on monitoring, control and surveillance (MCS). The activities under the fisheries component of the ATSEA-2 project are designed to be consistent with the RPoA-IUU and the activities of the sub-regional group. A Fisheries Management Plan (FMP) for the Arafura Sea has already been launched and the ATSEA-2 will complement this through a focus on the ecosystem impacts of and approaches to fisheries.

63. The habitat components of the SAP and related activities in the ATSEA-2 project build upon the principles and experiences in integrated coastal management (ICM), including those that have been coordinated at regional level in the East Asian Seas since 1998 by PEMSEA (Partnership in Environmental Management for the Seas of East Asia). PEMSEA coordinates the implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) that provides an overarching framework for the EAS. The SDS-SEA focuses on:

- Ensuring sustainable use of coastal and marine resources;
- Preserving species and areas of the coastal and marine environment that are pristine or are of ecological, social or cultural significance;
- Protecting ecosystems, human health and society from risks occurring as a consequence of human activities;
- Developing economic activities in the coastal and marine environment that contribute to economic prosperity and social well-being while safeguarding ecological values;
- Implementing international instruments relevant to the management of the coastal and marine environment; and
- Communicating with stakeholders to raise public awareness, strengthen multi-sectoral participation and obtain scientific support for the sustainable development of the coastal and marine environment.

64. In addition, for conservation of migratory, vulnerable, threatened, and endangered species, and specifically marine turtles, the project builds upon the work supported by the ATS littoral countries related to the Convention on the Conservation of Migratory Species of Wild Animals (CMS). The CMS aims to conserve migratory species, their habitats, and migration routes. A number of globally and regionally important migratory species listed under the CMS inhabit the ATS, and memoranda of understanding and action plans are in place to support collaborative management among range states. As the actions in these memoranda of understanding and action plans are broadly aligned with the objectives of the SAP, and in implementing the ATS SAP, the countries will seek to make use of such existing platforms and efforts.

Baseline Funding:

65. The proposed project will build on the baseline activities/support of the littoral countries, including Australia, Indonesia, Papua New Guinea and Timor-Leste. The Government of Australia has committed USD 4.6 million (AUD 6.487 million) over five years to support implementation of the SAP, by enhancing regional collaboration and coordination in the Arafura and Timor Seas. The Ministry of Marine Affairs and Fisheries of Indonesia provides approximately USD 32.69 million of in-kind cofinancing contribution, involving national and subnational projects, programs, and activities directly related to improved fisheries management

in the ATS region, strengthened and expanded protection of marine biodiversity, and improved coastal zone management. Included in the cofinancing contribution from the Government of Indonesia USD 400,000 will be extended for hosting the new regional governance mechanism that will be established and office premises are already in place in Bali. In support for the planned regional fisheries assessment, the Indonesian Institute of Sciences (LIPI - *Lembaga Ilmu Pengetahuan Indonesia)* has pledged USD 300,000 in grant cofinancing, providing the service of a vessel and professional services. From the National Fisheries Authority (NFA) of Papua New Guinea, cofinancing in the amount of USD 2 million will be contributed, to strengthen the efforts they are implementing in the South Fly District, Western Province. In addition, baseline support to implement the ATS SAP and its different components will be provided by UNDP Indonesia at USD 0.075 million. The total amount of cofinancing pledged for the ATSEA-2 project is USD 60.07 million.

PART II: Strategy

PROJECT RATIONALE AND POLICY CONFORMITY

Fit with the GEF Focal Area Strategy and Strategic Programme

66. This project is building upon the foundational results realized in the first phase of the ATSEA program, which applied the tried and tested GEF International Waters focal area TDA/SAP approach, starting with a participatory transboundary diagnostic analysis (TDA) and followed by development of a regional strategic action program (SAP) and national action programs (NAPs). The SAP and NAPs were formulated based upon the root causes and priority environmental concerns identified in the TDA process. This project, the second phase of the ATSEA program, is designed to support the initial implementation of the ATS SAP, endorsed through Ministerial Declaration in 2014. This is closely aligned with the GEF-6 programming direction, which has a strong emphasis on addressing root causes of environmental degradation, applying scientific based strategies for eventually reversing adverse environmental trends.

67. The GEF Council has increasingly encouraged synergies and efficiency gains by supporting multi-focal area projects. In reviewing the priority environmental concerns outlined in the ATS SAP, it is apparent that achieving improved regional governance and ecosystem management will require a concerted cross-sectoral response. Applying a multi-focal approach involving the International Waters and Biodiversity focal areas is a sensible strategy and consistent with GEF-6 strategic programs. Integrating climate change adaptation into the project components is further in line with the Council's guidance to reflect resilience at the project level, and also corresponds to one of the five ATS priority environmental concerns identified in the TDA process.

International Waters:

68. With the overall aim of supporting implementation of the strategic and national action programs developed during the first phase of ATSEA, this project is firmly rooted into the GEF International Waters (IW) focal area. With respect to the GEF-6 IW Strategy, the project falls under Objective 3, "*Enhance multi-state cooperation and catalyze investments to foster sustainable fisheries and protect coastal habitats, and reduce pollution of coasts and Large Marine Ecosystems (LMEs)*", and specifically Program 6, "*Prevent the loss and degradation of coastal habitats*", and Program 7, "*Foster sustainable fisheries*". Garnering support for actualizing enhanced management of coastal and marine resources ultimately is dependent upon aligning regional priorities with local socio-economic development goals. For example, Integrated Coastal Management (ICM) has been demonstrated by GEF and other organizations to be an effective, multi-stakeholder approach in addressing multivariate threats to coastal habitats and marine ecosystems, laying out a roadmap for sustainable development. This project is supporting ICM planning and implementation at sites located in Indonesia and Timor-Leste, as a means of leveraging structured and sustainable stakeholder buy-in with respect to development and conservation priorities. The ICM activities are designed to complement ongoing efforts by national and local governments, and with other donor funded initiatives, including those of PEMSEA[52]. Local communities will be the direct beneficiaries associated with implementation of ICM plans and other integrated approaches which will include introduction of alternative livelihoods. Local government units will benefit through capacity building opportunities for their spatial planning and socio-economic development functions, and also through achieving a scale-able framework that promotes participatory and sustainable development.

[52] PEMSEA: Partnership in Environmental Management for the Seas of East Asia; coordinates the implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA).

69. Acknowledging that regional collaboration in transboundary settings requires time and rigorous dialogue, the GEF-6 IW Strategy also emphasizes foundational support for building the capacity of regional institutional structures and national counterpart bodies, including inter-ministerial committees. Under Component 1 of the ATSEA-2 project, national and regional governance mechanisms will be strengthened, cross-sectoral collaboration will be supported, and inclusive stakeholder participation will be facilitated to ensure the long-term viability of transboundary ecosystem management across the ATS region.

70. The intrinsic connection between sustainable fisheries and biodiversity conservation is reflected in Program 7 of Objective 3 under the GEF-6 IW Strategy, and GEF funding on this project will support implementation of the ecosystem-based approach to fisheries (EAFM), reduction of illegal, unreported, and unregulated (IUU) fishing, and applying improved fisheries management as a means of advancing certain fisheries towards eventual sustainable certification. The project activities designed under the IW focal area are closely aligned with the biodiversity (BD) ones; this includes establishment of new marine protected areas (MPAs) and strengthening the management effectiveness and financial sustainability of existing ones.

71. Ecological well-being is only one dimension of EAFM, along with human well-being and good governance as illustrated below in **Figure 3**. Recognizing that the socio-economic development of some coastal communities in the ATS region is dependent on fish and other marine resources, some of the incremental benefits of the GEF support include focusing on small scale fishers, integrating traditional knowledge into local development plans and rights of access, as well as demonstration of alternative livelihoods that provide opportunities for expanded income generation and improved household nutrition and overall well-being, as well as increased access and equitable distribution of ecosystem goods and services among women and local people. Gender mainstreaming is an integral part of all six of GEF's focal areas (biodiversity, climate change, international waters, land degradation, persistent organic pollutants, and ozone depletion) and thus the value of the project is further enhanced though proposed gender-specific measures and activities.

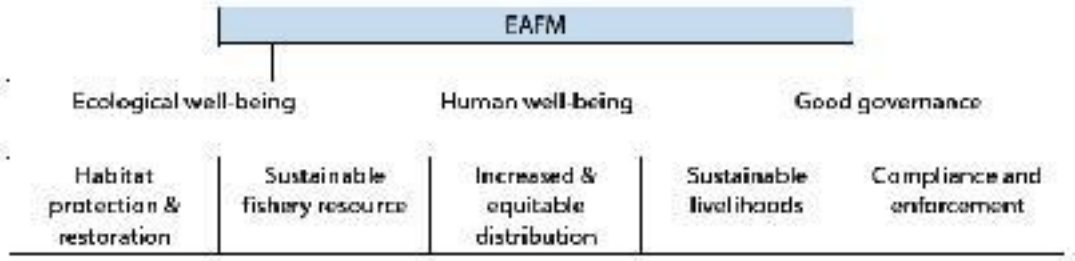

Figure 3. Three components of EAFM[53]

Biodiversity:

72. Protected areas have proven to be a cost-effective approach to conserving ecosystem services (e.g., TEEB 2010[54]); however, the amount of terrestrial and marine habitats under enhanced protection remains short of Convention on Biological Diversity (CBD) targets, particularly for marine protected areas. Consistent with GEF-6 Biodiversity Strategic Objective No. 1, "*Improve Sustainability of Protected Area Systems*", and particularly Program 2, "*Nature's Last Stand: Expanding the Reach of the Global Protected Area Estate*", the project is supporting the establishment of new MPA's in Indonesia and Timor-Leste, and also a regional network of MPAs that would facilitate connectivity of key biodiversity areas across the ATS region. Expansion of

[53] Source: Staples, D.,Brainard, R., Capezzuoli, S., Funge-Smith, S., Grose, C., Heenan, A., Hermes, R., Maurin, P., Moews, M., O'Brien, C. & Pomeroy, R. 2014. *Essential EAFM. Ecosystem Approach to Fisheries Management Training Course. Volume 1 – For Trainees.* FAO Regional Office for Asia and the Pacific, Bangkok, Thailand, RAP Publication 2014/13, 318pp.

[54] TEEB (2010) The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB.

MPA coverage is aligned with more effective management of coastal and marine resources, including implementation of the ecosystem approach to fisheries management, e.g., by promoting no-take zones to conserve marine biodiversity.

73. Among the few MPAs designated in the ATS region outside of Australia, one in Indonesia and also one in Timor-Leste, resources committed for implementation of the management plans for these protected areas have been limited. The GEF support will also address improving the management effectiveness and financial sustainability of the Southeast Aru MPA in Indonesia and the Nino Konis Santana MPA in Timor-Leste, with the aim of securing commitment from national partners to institutionalize sufficient staff and funds for sustained management, and also present opportunities for alternative financing options and participation from non-governmental stakeholders, including NGOs and the private sector.

74. There are over 56,000 ha[55] of coral reef ecosystems in the ATS region, representing roughly 0.2 % of the world's total. The project supports a number of activities aimed at sustainable use of biodiversity which will substantively contribute to the protection of coral reef ecosystems. Pressures on coral reefs will be reduced through the expanded MPA coverage and policies included in integrated coastal management plans. Sustainable management of select fisheries through implementation of EAFM, including, for example, regulations on fishing grounds and fishing seasons, will also provide enhanced levels of conservation of coral reef systems and the ecosystem services they provide. And, adoption and implementation of policies on mitigating marine-based pollution, including marine debris, will further help reduce damage to sensitive coral reef ecosystems. Under the GEF-6 Biodiversity Strategy, the efforts outlined above are closely aligned with Objective 3, "*Sustainably Use Biodiversity*", and particularly Program 6, "*Ridge to Reef+: Maintaining Integrity and Function of Globally Significant Coral Reef Ecosystems*".

75. Ecosystem management strategies are more and more focusing on mainstreaming biodiversity conservation into production sectors, as managing the human-biodiversity interface needs to extend beyond the borders of strict conservation areas. Even for protected areas, there is an increasing tendency for administrators and local communities to opt for IUCN classifications IV-VI, which integrate sustainable use of biodiversity. Key production sectors within the ATS include fisheries, oil and gas, tourism, and infrastructure development; the project is supporting biodiversity mainstreaming into these sectors through a number of avenues, including assisting local government units to adopt and implement integrated coastal management plans that, among other things, promote ecosystem based adaption measures that strengthen resilience to climate change; supporting fisheries improvement projects to advance certain species towards eventual sustainable certification; and working with local communities near the borders of MPAs to develop alternative livelihood opportunities, including ecotourism initiatives. These activities fall squarely within Objective 4 of the GEF-6 Biodiversity Strategy: "*Mainstreaming Biodiversity Conservation and Sustainable Use into Production Landscapes/Seascapes and Sectors*", specifically Program 9, "*Managing the Human-Biodiversity Interface*".

Conformity with the CTI Regional Plan of Action

76. The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) is a multilateral partnership of six countries (Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, Timor-Leste) formed in 2007 to address the urgent threats facing the coastal and marine resources of one of the most biologically diverse and ecologically rich regions on earth. CTI-CFF is managed through a regional Secretariat based in Jakarta, Indonesia.

[55] Source: ATSEA, 2012. Transboundary Diagnostic Analysis of Arafura and Timor Seas Region. The figure excludes coral reef coverage in Australia.

77. While the ATS region does not fall inside the Coral Triangle, except for a small area of the Timor Sea including the south coasts of Timor-Leste and Rote Ndao in Indonesia, it is adjacent to it, the CTI-CFF covers the full maritime boundaries of the 3 beneficiary countries, and there are shared ecosystem services that are not bounded by administrative borders. This is the reason why the GEF funding for ATSEA in its foundational phase has been assigned under their broader support to the CTI-CFF. To date the GEF has granted USD 75 million to projects under the CTI-CFF which has generated USD 400 million in cofinancing [56], making the GEF the largest contributor to CTI.

78. Development of the ATS SAP also took into consideration the CTI Regional Plan of Action (CTI-RPoA), agreed upon in 2009 with the following five goals:

Environmental Objectives of the ATS SAP	Goals of the CTI-RPoA
1. Recovering and sustaining fisheries	Goal 1: Priority seascapes designated and effectively managed
2. Restoring degraded habitats for sustainable provision of ecosystem services	Goal 2: Ecosystem approach to management of fisheries (EAFM) and other marine resources fully applied
3. Reducing land-based and marine sources of pollution	Goal 3: Marine protected areas (MPAs) established and effectively managed
4. Protecting key marine species	Goal 4: Climate change adaptation (CCA) measures achieved
5. Adaptation to the impacts of climate change	Goal 5: Threatened species status improving

79. The largely similar objectives between the ATS SAP and the CTI-RPoA offer multiple opportunities for synergies, including national coordination structures. For example, the CTI national coordinating committee in each member country could possibly share roles and responsibilities for the ATS coordination purposes. Notwithstanding the similarities between the ATS SAP and the CTI-RPoA, there are unique circumstances of the ATS region, not the least of which is the fact that Australia is not included in the CTI, that call for transboundary action among the four littoral ATS countries.

80. During formulation of the ATS SAP during the first phase of the ATSEA program and as part of the project preparation phase of the second phase, ATSEA-2, extensive consultations were made with representatives of the CTI-CFF Technical Working Groups in Indonesia and Timor-Leste, in order to ensure that the planned activities are complementary to the CTI-CFF regional strategies and initiatives.

Rationale for Regional Governance Mechanism

81. A unique regional governance mechanism represented by the ATS littoral countries is sensible on several fronts. Situated within the North Australian Shelf Large Marine Ecosystem, there are a number of governance issues within the ATS region. With respect to fisheries, each national government has separate legislation and differing objectives, with common ambitions of ensuring that exploitation of transboundary fisheries resources is managed in a manner consistent with the principles of ecologically sustainable development. Each of the four littoral countries, including Australia, are party to the RPoA-IUU, which has a specific focus on the Arafura and Timor Seas; however, varying levels of capacity and pressure from foreign fisheries have resulted in an uneven governance landscape. The Government of Indonesia has ramped up their efforts on addressing IUU fishing by creating a Presidential task force in 2015 which has spawned separate bilateral agreements between the Government of Indonesia with the Governments of Timor-Leste and Papua New Guinea. The proposed ATS regional governance mechanism offers a platform that goes beyond fisheries, covering cross-cutting issues of biodiversity conservation, climate change

56 Source: CTI-CFF website: www.coraltriangleinitiative.org

adaptation, and pollution prevention and control. Furthermore, the existing regional governance structures tend not to extend to coastal fisheries, which support the livelihoods of thousands of inhabitants among local ATS communities. As coastal fisheries are mostly under the jurisdiction of subnational and traditional authorities, there are a number of opportunities for exchanging best practices and reaching local cross-border agreements on shared resources.

82. Advances in regional cooperation were made back in 2003, when ATSEF was established as a Type II partnership, with representation primarily by governmental and academic/scientific sector stakeholders from Australia, Indonesia, and Timor-Leste. The governments of these three littoral countries extended support to the issues advocated by ATSEF through cofinancing contributions made to first phase of the GEF-funded UNDP supported ATSEA program, which was implemented between 2010 and 2014. ATSEA-1 culminated with a Ministerial Declaration, signed by representatives of Australia, Indonesia, and Timor-Leste, in support of the regional ATS strategic action program and the establishment of a regional governance mechanism. With Papua New Guinea participating in the second phase of the ATSEA program, the prospects for expanding agreement on regional governance mechanisms across the entire ATS region are bolstered.

83. Apart from the CTI-CFF, there are other regional governance structures in place, including PEMSEA, the regional operating mechanism coordinating the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA), which is a document that outlines a shared vision as well as the collective strategies and approaches to achieve the goals of sustainable development for the region. The geographic area covered by the SDS-SEA extends into the ATS region, with Indonesia and Timor-Leste; the countries of Australia and Papua New Guinea are not included.

84. There are also a number of bilateral agreements between the ATS littoral countries. For instance, the MOU Box refers to a rectangular tract of marine waters in the Timor Sea, lying within Australia's Exclusive Economic Zone that is subject to a 1974 memorandum of understanding, and subsequent agreements, between Australia and Indonesia. The Timor Sea Treaty[57] between the governments of Australia and Timor-Leste address rights to petroleum resources within the designated Joint Petroleum Development Area. Another example is the Torres Strait Treaty[58], between Australia and Papua New Guinea, dealing with a wide range of cultural, natural resource, and political issues in this strategic area of the ATS region.

85. For Indonesia, the largest country in the ATS region, in terms of population, there are several regional level issues affecting the ATS ecosystem goods and services upon which so many people depend on. Among the Indonesian fisheries management area 718 (FMA 718), covering the Arafura Sea, was the first to achieve an approved fisheries management plan (FMP 718). The ATSEA-2 project is positioned to support the Government of Indonesia in establishing a management body for FMA 718 which will be a fully functioning subnational governance mechanism and a natural platform, working closely with the ATS regional coordination committee, in addressing Indonesia's priorities across the ATS region.

Rationale and summary of GEF Alternative

86. The project covers the five priority transboundary environmental problems identified by the TDA: (i) unsustainable fisheries and decline and loss of living coastal and marine resources; (ii)

---

[57] The Timor Sea Treaty between the Government of Timor-Leste and the Government of Australia was signed on 20 May 2002 and entered into force on 2 April 2003. The Treaty provides for the sharing of the proceeds of petroleum found in an agreed area of seabed, called the Joint Petroleum Development Area.

58 The Torres Strait Treaty was signed in December 1978 and entered into force in February 1985. It defines the border between Australia and Papua New Guinea and provides a framework for the management of the common border area. As well as defining the maritime boundaries between Papua New Guinea and Australia, the Treaty protects the ways of life of traditional inhabitants in the Torres Strait Protected Zone (TSPZ). Subsidiary management arrangements for commercial fisheries in the Zone have also been put in place under the Treaty. www.dfat.gov.au

modification, degradation and loss of coastal and marine habitats; (iii) marine and land-based pollution; (iv) decline and loss of threatened and migratory species; and (v) impacts of climate change on the ATS, by removing the key barriers to sustainable management of the ATS including the lack of a strong regional mechanism for collective regional action and transboundary management of the ATS; weak inter-sectoral coordination and collaboration; under resourced law enforcement at national and local levels; and lack of access to environmental planning tools, technologies and approaches for sound environmental management, exacerbated by insufficient funding at different levels.

87. The rationale for the GEF alternative is justified across multiple criteria, including the following:

a. Supports establishment of an ATS regional governance mechanism, which accommodates national interests and priorities, while facilitating sustainable ecosystem management and conservation through a transboundary approach;

b. Leverages regional and international best practice in implementation of integrated approaches to sustainable management of coastal and marine resources;

c. Empowers local communities, with a particular emphasis on inclusion and economic empowerment of women and local people, engaging them through participatory processes and demonstrating how their livelihoods and overall well-being can be enhanced through more sensible use and conservation of the ecosystem goods and services;

d. Facilitates biodiversity mainstreaming, underpinned by integrated coastal management planning approaches that provide sound and scale-able sustainable development frameworks; and

e. Strengthens the requisite enabling conditions for increasing the likelihood for participation by a broader spectrum of stakeholders, including the private sector, in safeguarding the ecosystem values of the ATS region.

INTRODUCTION TO PROJECT SITE INTERVENTIONS

88. As this project is regional in context, the selection of sites is rooted in the transboundary dimension of the priority environmental concerns concluded in the TDA. Some of the planned regional level activities include implementing EAFM on the scale of a Large Marine Ecosystem (LME), reducing IUU fishing across the ATS region, improving regional knowledge on the impacts of climate change and how those affect local coastal communities and, also, influence regional and even global biophysical processes, establishing a reginal marine protected area network, and supporting a regional action plan to enhance the conservation of endangered migratory megafauna.

Site Selection Criteria:

89. Achieving the objectives of the regional ATS SAP will largely depend upon how priority actions identified in the national action programs are mainstreamed into national and subnational development policies and plans. For this reason, the project design includes specific activities that will be implemented nationally, and there are a number of interventions planned in the field, at select districts and local communities. Selection of these “sites” was based upon a number of criteria, including:

Alignment with national and subnational priorities: The first site selection criterion was alignment with national and subnational priorities, including those outlined in the ATS NAP, the national biodiversity strategy and action plan (NBSAP, the CTI-NPoA, among others. National focal points were requested in writing to review a preliminary list of recommended sites and

confirm that those were consistent with respect to national and local development plans, or if not, suggest alternate ones.

Conformity with NBSAP and NAP priority actions: The site selection process also depended upon the extensive consultations and analyses that were carried out in the formulation of the updated national biodiversity strategies and action plans (NBSAPs), and also consistent with the priority actions outlined in the ATS NAPs.

Level of preparedness and willingness by enabling stakeholders: As the implementation timeframe for the GEF project is 5 years, the level of preparedness and willingness for national and subnational enabling stakeholders to be involved and advocate for the planned project activities are key factors in deciding which sites to focus on.

Status of fisheries and other marine resources: The sites and selection of activities also need to be relevant, including the degree to which certain species of fish and other marine resources are being exploited. The selected fisheries are either over-exploited or, for example the case of barramundi fisheries in Merauke in Indonesia and the mackerel fisheries off the south coast of Timor-Leste, are locally important economically and for subsistence purposes.

Local dependences on ecosystem goods and services: The majority of ATS coastal communities are highly dependent upon the available ecosystem goods and services, but there was an attempt to choose sites, i.e. communities, that are particularly reliant on coastal and marine resources.

Climate change vulnerability: The vulnerabilities of certain communities to the impacts of climate change are uneven, influenced by an array of variables, including geographic setting and weather patterns, number and density of inhabitants, the quality of the built environment, progress made with respect to coastal zone planning and adherence to risk-based guidelines, etc. These factors were also taken into consideration in selection of sites.

Socio-economic circumstances of local beneficiaries: For the project activities implemented at the community level, the socio-economic circumstances, such as poverty incidence, reliance on fish and marine resources, etc., of the local beneficiaries were considered, in order to maximize benefit to those under-privileged or otherwise marginalized factions.

Synergies between project activities: In order to optimize project efficiency, sites were searched that offered opportunity of implementing more than one project activity, such as ICM planning, implementation of EAFM, and strengthening management effectiveness and financial sustainability of MPAs. In this way, the limited resources and time could be expended efficiently and greater impacts may be achieved to provide lessons learned in future replication.

Opportunities to collaborate with other projects and initiatives: Synergies and efficiency gains were also explored with respect to other national and donor funded projects and initiatives. Capacities of local enabling stakeholders, such as community based organizations, are often stronger in those areas where development investments have been made in the past. Skills gained, for example, in social mobilizing increase the likelihood that project supported activities reach the right people and also enhances the likelihood that results achieved will be sustained and possibly scaled up after project closure.

Overview of Selected Sites:

90. The agreed upon activities at the selected project sites are listed below in **Table 2**. **Annex A** contains more site data on demographic, institutional, socio-economic, and biophysical information.

Table 2: Summary of Activities at Project Sites

Scale		Activity:
Regional: Arafura and Timor Seas Large Marine Ecosystem		
Ecosystem Approach to Fisheries Management (EAFM): red snapper Reduction of IUU Fishing Improved knowledge of climate change impacts and implementation Regional pollution hotspot assessment Regional Marine Protected Area Network designed and endorsed by RCC Regional Action Plan on Marine Turtles formulated and agreed upon 1% to IW:LEARN[59] activities under Output 3.1.2		
Indonesia:		
Maluku Province	Kabupaten Aru Islands (District)	EAFM: red snapper and shrimp
		FIP: Fisheries improvement projects: red snapper and shrimp fisheries
		MPA: Strengthening management effectiveness of existing Southeast Aru MPA (*Kepulauan Aru Tenggara*)
		MPA: Community activities (trepan rearing, Sasi, community conservation agreement)
Papua Province	Kabupaten Merauke (District)	FIP: Fisheries improvement project: barramundi fisheries
		MPA: Designation of *Pulau Kolepon* (new MPA)
		MPA: Community activities
NTT Province	Kabupaten Rote Ndao (District)	ICM plan (focusing on south coast of Kabupaten Rote Ndao)
		ICM with ecosystem based adaptation
		ICM implementation: Alternative livelihood interventions, capacity building
		Pollution: oil and gas sector, training and regional exchange
Timor-Leste:		
Município Viqueque		EAFM: mackerel (local name: *kombong*) fisheries
Municípios Manatuto, Manufahi		MPA: Designation of a new marine protected area
Município Manatuto	Barique Posto Administrativo	ICM Action Plan developed and implemented
		ICM Plan expanded with CCA
		ICM implementation, alternative livelihoods, capacity building
Município Covalima		Pollution: oil and gas sector, training and regional/exchange
Município Lautem		MPA Nino Konis Santana, strengthened management
		MPA: Locally managed marine areas, alternative livelihoods
Papua New Guinea:		
Western Province	South Fly District	EAFM: artisanal fisheries management plan
		EAFM pilot implementation: rights-based management
		IUU Fishing Reduction: pilot community monitoring, control, surveillance

[59] IW:LEARN is the Global Environmental Facility's International Waters Learning Exchange and Resource Network (http://iwlearn.net)

PROJECT GOAL, OBJECTIVE, OUTCOMES AND OUTPUTS/ACTIVITIES

91. The **project goal** is to sustain the flow of ecosystem goods and services from the Arafura and Timor Seas through a transboundary governance strategy that is rooted in national development priorities.

92. The **project objective** is to enhance sustainable development of the Arafura-Timor Seas (ATS) region to protect biodiversity and improve the quality of life of its inhabitants through conservation and sustainable management of marine-coastal ecosystems (as indicated in the SAP).

93. In order to achieve the above objective, and based on the barrier analysis outlined in Section I, Part I, which identified: a) the problems being addressed by the project, b) its root causes, and c) the barriers to overcome in order to actually address the problem and its root causes, the project's intervention has been organized in three components, under which nine 'outcomes' are expected.

Component 1:	**Regional, National and Local Governance for Large Marine Ecosystem Management**
Component 2:	**Improving LME Carrying Capacity to Sustain Provisioning, Regulating and Supporting Ecosystem Services**
Component 3:	**Knowledge Management**

94. The expected outcomes under each of the three components, and the outputs and activities planned to achieve them, are described below.

Component 1: Regional, National and Local Governance for Large Marine Ecosystem Management

95. The objective of this component is to strengthen regional and national governance structures by establishing participatory mechanisms for facilitating implementation of priority actions under the SAP and NAPs (Outcome 1.1). These efforts will be supported by a Regional Coordination Committee (RCC) and a Secretariat which will function in conjunction with broader environmental governance mechanisms in the region. The RCC will be composed of government officials from key ministries and line agencies, and also representatives of regional and national UNDP offices. Enhanced regional governance is envisaged to include adoption of a formal regional cooperation agreement that will be implemented in a stepwise manner, with the RCC being constituted first, followed by creation of the ATS Secretariat and strengthened stakeholder partnership structures.

96. Since 2003, regional stakeholder participation has been arranged through the ATS Expert Forum (ATSEF), which was comprised of representatives of governmental ministries and agencies, and also academics from universities and research institutions having in-depth knowledge and on-the-ground experience with respect to ATS coastal and marine ecosystems. The main criticism of ATSEF was that it was too academic in nature and had poor linkages with other relevant stakeholders. This project will therefore support strengthening and expansion of stakeholder involvement by reaching out to a broader array of interested groups, including the civil society, community groups, private sector, and local government administrations. A Stakeholder Partnership Forum (SPF) will support the ATS Secretariat in ensuring representative stakeholder participation and coordinated governance of ATS ecosystems. The SPF might be branded as "ATSEF+" to signify an expanded forum of regional stakeholders due to the high level of name recognition of ATSEF. In any case, SPF will maintain a scientific sub-committee to play a role similar to that of the former ATSEF.

97. The SPF aims to strengthen the overall participatory processes at all geopolitical levels, resulting in better integration into the Regional Coordination Committee and the Secretariat. The SPF, heretofore branded ATSEF+ for the purpose of this document (to be verified upon project inception), will be more inclusive than the former ATSEF, potentially carrying forward the existing members while also including relevant other civil society organizations and private sector groups engaged in oil and gas, fisheries, forestry/logging, tourism and other businesses of relevance to the ATS. Inter-sectoral coordination at the national and local levels in support of the implementation of integrated approaches to marine and coastal management and biodiversity conservation will be improved through the national inter-ministry committees (NIMC's) which will support implementation of the ATS SAP and NAPs and also for the national NBSAPs.

98. To enhance the likelihood of sustainability of the regional governance structures, financing will need to shift away from project based mechanisms to a multiplicity of sources, including national and local governments, from the private sector (e.g., oil and gas, fishing industry, tourism sector, forestry/logging, etc.), multilateral and bilateral donors, NGOs and foundations, as well as from market-based mechanisms, such as Payments for Ecosystem Services (PES) and Public Private Partnerships (PPPs). Under this context, the project will support development of sustainable financing plan and advocate for broader financing contributions. It is recognized that these sustainable financing options could only come about contingent on the establishment of a formal RCC with the appropriate juridical personality.

99. Component 1 is also designed to strengthen the institutional and human resource capacities towards integrated approaches in natural resource management (Outcome 1.2). The project will support a critical review of national and local policies and programs in Indonesia, Timor-Leste, and Papua New Guinea, and facilitate a regional level dialogue aimed at rationalizing relevant policies according to international best practice. The NIMCs will play an important role in these policy centered activities, and also ensuring that strengthened regulatory and institutional frameworks are in line with other complementary national priorities, including those outlined in the National Biodiversity Strategies and Action Plans (NBSAPs).

100. Following capacity assessments at the national and subnational level, the project will also sponsor training of trainers on integrated approaches to natural resource management, conservation of marine and coastal biodiversity, as well as climate change adaptation. These trainings are slated to benefit at least 100 participants in Indonesia, 60 in Timor-Leste, and 10 in Papua New Guinea. Training materials will be adapted in local languages and social circumstances, and delivered by experienced and qualified institutions and professionals.

101. In response to one of the five priority environmental objectives outlined in the SAP, the project will contribute to improve the understanding of climate change impacts on fisheries and marine/coastal ecosystems, and how these impacts could be compounding the vulnerabilities of local communities. State-of-the-art scientific analyses and climate change assessment techniques will be carried out jointly, involving leading research institutions in each of the beneficiary littoral countries (Outcome 1.3). The information gathered and modeling results obtained regarding expected climate change and ocean acidification impacts will be used to strengthen regional and national policy directions, to be reflected in an updated ATS SAP and the NAPs, including a new one for Papua New Guinea and revised ones for Indonesia and Timor-Leste. The regional scientific collaboration will strengthen the transboundary responses in addressing environmental priorities, and the outputs under Outcome 1.3 will also be used to guide/refine the Integrated Coastal Management, and specifically ecosystem-based adaptation actions planned under Component 2, Outcome 2.4, which focuses on enhancing ecosystem resilience of at-risk coastal communities.

102. Papua New Guinea had limited participation in the TDA process during the first phase of the ATSEA program, and was not involved in the development of the regional SAP. The participation of Papua New Guinea in this second phase of ATSEA rounds out the representation of ATS littoral countries. Under Outcome 1.4, Papua New Guinea will be supported with bringing the ATS TDA up to date, through collection of priority data on coastal fisheries and benthic resources and compilation of secondary data on other relevant biophysical and socio-economic conditions. The TDA will also be revised with the additional climate change information concluded through the activities in Outcome 1.3, and the agreed upon priority environmental concerns will be used to formulate an updated regional strategic action program (SAP), which as during the first phase of ATSEA, the project will facilitate endorsement through Ministerial Declaration, except this time, inclusion of Papua New Guinea will provide complete representation of the four ATS littoral countries. After the updated SAP is agreed upon, a national action program (NAP) will be completed for Papua New Guinea and updated ones for Indonesia and Timor-Leste, and the project will support all three countries in advocating for mainstreaming the national actions into relevant development planning frameworks.

103. A number of enabling decisions, listed below in **Table 3**, will be required for advancing the planned activities under Component 1.

Table 3: Decisions Required for Key Outputs under Component 1

Scale	Key Output	Decision Needed
Regional:	Regional Governance Mechanism Agreed Upon	Ministerial Declaration by all four countries
	Stakeholder Partnership Forum Functioning	TOR of SPF approved by RCC
	Updated Transboundary Diagnostic Analysis	TDA endorsed by RCC
	Updated Regional Strategic Action program Approved	SAP endorsed by RCC
National: Indonesia	National Inter-Ministerial Committee Institutionalized	Endorsement by MMAF SG
	Updated National Action program Mainstreamed	Approved by NIMC
National: Timor-Leste	National Inter-Ministerial Committee Institutionalized	Endorsement by MAF Minister
	Updated National Action program Mainstreamed	Approved by NIMC
National: PNG	National Inter-Ministerial Committee Institutionalized	Endorsement by NFA Managing Director
	National Action program Approved	Endorsement by National Project Board

104. The four outcomes envisaged under Component 1 are described in more detail below.

OUTCOME 1.1: REGIONAL AND NATIONAL MECHANISMS FOR COOPERATION IN PLACE AND OPERATIONAL

105. Outcome 1.1 focuses on the establishment of a regional governance mechanism to facilitate conservation and sustainable development of the coastal and marine resources of the ATS, in response to the commitment made by the governments of Australia, Indonesia, and Timor-Leste in the Ministerial Declaration signed in 2014. Under this project, Papua New Guinea will be joining the other three littoral countries in responding to the transboundary priority environmental concerns. The governance mechanism will be supported through strengthened and more representative stakeholder participation, improved inter-sectoral collaborative structures on the national level, and development of alternative financing plans for sustaining the implementation of the updated SAP and NAPs.

Output 1.1.1 Regional Coordination Committee and a supporting Secretariat created to promote regional level planning, cooperation and monitoring in the implementation of the SAP and NAPs; formal regional cooperation agreement adopted and implemented where feasible

106. Activities under Output 1.1.1 focus on the establishment of a regional governance mechanism, referred to as the ATS Regional Coordination Committee (RCC) to ensure sustained coordination and capacity building in support of the implementation of the ATS SAP and NAPs. The RCC will formalize the governance vision outlined in the 2014 Ministerial Declaration, endorsing the SAP. During the 5-year project implementation timeframe, the regional project steering committee (RSC) will act as the interim RCC, and the project will facilitate development of a non-legally binding, longer term governance arrangement, envisaged to be agreed upon by the four littoral countries through a new Ministerial Declaration. As outlined in the SAP, the operation of the RCC will be supported by an ATS Secretariat, which during the project implementation phase will be represented by the regional project management unit (RPMU).

Activities for Output 1.1.1

Regional:

1.1.1-1. Establish an interim ATS regional governance mechanism (Regional Coordination Committee, RCC) and Secretariat, as the ATSEA-2 regional project steering committee and RPMU, respectively.

1.1.1-2. Undertake annual meetings of the ATS RCC. In the first two years, the members of the committee will coincide with the representatives of the project regional steering committee (RSC).

1.1.1-3. Carry out an analysis of existing regionally specific political and legal frameworks, assessing viable options for a sustainable ATS regional governance mechanism, building on the completed governance analysis in Phase 1.

1.1.1-4. Undertake national consultations involving relevant stakeholders to discuss the preferred organizational model of regional governance mechanism.

1.1.1-5. Based upon the results of Activities 1.1.1-3 and 1.1.1-4, develop a model for an ATS regional governance mechanism, in general accordance with the 2014 Ministerial Declaration, and taking into consideration the roles and responsibilities of each member country.

1.1.1-6. Conduct a Ministerial Meeting with the aim of reaching a new Ministerial Declaration on ATS regional governance and including representation by Papua New Guinea.

Output 1.1.2 Improved stakeholder participation at the regional and national levels through the establishment of a Stakeholder Partnership Forum for the implementation of the SAP and NAPs with representation of local people and women's groups

107. Activities under Output 1.1.2 are designed to provide better inclusion of the wider stakeholder base in the ATS region, including representatives of local people and women's groups. Since 2002, the Arafura and Timor Seas Expert Forum (ATSEF) has functioned as a non-formal, less binding expert communication forum to discuss sustainable development of ATS. The activities in this output will build upon the experience and lessons learned since 2002, to establish a Stakeholder Partnership Forum as a formal mechanism for inclusive engagement of regional stakeholders that will develop into the RCC's main partner for sustainable development of the ATS.

108. This stakeholder partnership forum (SPF) will provide technical and policy advice to the RCC. The SPF will have representation from each of the 4 littoral ATS countries (Australia, Indonesia, Papua New Guinea, and Timor-Leste). For the duration of ATSEA-2, the project will organize the annual meeting of the SPF concurrently with the annual RCC meeting, and support the participation of about 5 stakeholders from each of three beneficiary countries, i.e., Indonesia, Timor-Leste, and Papua New Guinea to attend (for example, with representation from national government - the selected representative of the country's (NIMC), sub-national government, civil society, vulnerable groups (i.e., women and local people) academia, and the private sector). As part of their cofinancing contribution, the Government of Australia will attend the SPF/RCC meetings, and also send notice to other Australian SPF members of upcoming meetings. Participation is voluntary and available to a wide audience, should stakeholders be able to finance their own participation.

109. Reporting and communication lines between the SPF and RCC will be important to manage during the project – and afterwards. At each RCC meeting, a representative of the SPF will report on their meeting results. And, the RCC will make requests on an as-needed basis to the SPF for support on particular issues at hand.

110. At the national level, it is up to each country to decide if they would like to also establish a separate national stakeholder forum. To the degree practicable, collaboration or integration with existing regional stakeholder involvement structures will be facilitated, e.g., under the CTI-CFF, the RPoA-IUU, etc.

111. In Indonesia, the project will support the establishment of a management body for FMP 718, represent ATS issues on the Forum Coordination for Fisheries Resources Utilization Management (FKPPS - *Forum Koordinasi Pengelolaan Pemanfaatan Sumberdaya*), and also coordinate with the national Task Force on IUU Fishing. Similarly, in Papua New Guinea, the project will assist in the establishment of a stakeholder committee as part of the artisanal fisheries management plan for the South Fly District, Western Province.

Activities for Output 1.1.2

Regional:

1.1.2-1. Building upon the achievements of ATSEF, a stakeholder partnership forum (SPF) will be identified and declared with a clear partnership mandate and role to work together with RCC in supporting the sustained governance required for implementation of the ATS SAP and NAP's, and facilitating broader stakeholder participation, including by multitude of civil society organizations, representatives of vulnerable groups such as indigenous people and women, and private sector oil and gas, fisheries, and tourism sectors.

1.1.2-2. Develop and approve a terms of reference (TOR) for the new SPF and guidelines according to Ministerial Declaration, based on a survey of needs and desires of identified stakeholders.

1.1.2-3. In conjunction to the annual RCC meeting, an annual meeting of the SPF, the expert sub-committee, and other sub-committees that might potentially be developed, will be conducted.

Indonesia:

1.1.2-4. Identify and agree on the national representation on the SPF and their roles.

1.1.2-5. Through participation of the national coordinator, advocate for synergies between the NIMC and other bodies addressing regional cooperation, CTI-CFF, RPoA-IUU, etc.

1.1.2-6. Conduct an annual meeting of relevant stakeholders including the FKPPS (Forum Coordination for Fisheries Resources Utilization Management - *Forum Koordinasi Pengelolaan Pemanfaatan Sumberdaya*).

1.1.2-7. Support the establishment of a fisheries management body according to the model proposed in FMP 718.

Timor-Leste:

1.1.2-8. Identify and agree on the national representation on the SPF and their roles, including participation by private sector, including oil & gas, fisheries, tourism.

1.1.2-9. National Coordinator to advocate for synergies between the NIMC and other bodies addressing regional cooperation, CTI-CFF, RPoA-IUU, etc.

Papua New Guinea:

1.1.2-10. Carry out a stakeholder analysis, in order to identify relevant governmental ministries and agencies, academic and research institutions, NGOs, multilateral and bilateral donor organizations, and private sector enterprises, for inclusion onto the SPF.

1.1.2-11. Through participation of the national coordinator, advocate for synergies between the NIMC and other bodies addressing regional cooperation, CTI-CFF, RPoA-IUU, etc.

1.1.2-12. Support establishment of a stakeholder committee as part of the artisanal fisheries management plan for South Fly District, Western Province.

Output 1.1.3 Improved inter-sectoral coordination at the national and local levels in support of the implementation of integrated approaches to NRM, water resources, biodiversity conservation and climate change adaptation, through national inter-ministry committees (NIMCs) in Indonesia, Timor-Leste, and Papua New Guinea

112. Activities under Output 1.1.3 will support coordination between different sectoral agencies at the national and subnational levels. Building upon the results from Phase 1 of the ATSEA program, an updated regional institutional review of the relevant institutions will be carried out. This will be followed with national level assessments, consolidating information and stakeholder feedback on existing national inter-ministerial committees (NIMCs). For each country, terms of references (TOR) will be formulated for the NIMCs, and the project will support NIMC meetings over the course of the project implementation. The role and responsibilities of the NIMC will be documented in the updated ATS NAPs, along with funding arrangements for sustained support for the NIMC for guiding longer term implementation of the NAP.

113. For Indonesia, an ATS Governors forum would be a subset to the NIMC and also linked to the CTI-CFF Local Government Network.

Activities for Output 1.1.3

Regional:

1.1.3-1. Undertake an updated regional institutional review, identifying relevant institutions and agencies in Indonesia, Papua New Guinea, Timor-Leste, and Australia, taking into account existing initiatives such as CTI-CFF, RPoA-IUU, PEMSEA, among others. This assessment will be used to guide the national level activities.

Indonesia:

1.1.3-2. Conduct an institutional assessment of relevant inter-ministerial agencies and subnational counterparts that would be involved in the NIMC, in line with recent

institutional restructurings, and including similar existing frameworks such as CTI, PEMSEA, etc.

1.1.3-3. Develop a TOR outlining the NIMC objective, operational plan, and roles and responsibilities of the members. This TOR will be incorporated into the updated ATS national action program (NAP), to be endorsed by the NIMC and national project board by the end of the project.

1.1.3-4. Facilitate an annual meeting of the NIMC in conjunction with the annual national project board meeting.

1.1.3-5. Engage in regular consultation and communication with other relevant programs and initiatives at the national level, such as: CTI-CFF, RPoA-IUU, PEMSEA, COREMAP-CTI, etc.

Timor-Leste:

1.1.3-6. Conduct an institutional assessment of relevant inter-ministerial agencies and subnational counterparts that would be involved in the NIMC, and understand how the NIMC will relate to CTI, PEMSEA etc.

1.1.3-7. Develop a TOR outlining the NIMC objective, operational plan, and roles and responsibilities of the members. This TOR will be incorporated into the updated ATS national action program (NAP), to be endorsed by the NIMC and national project board by the end of the project.

1.1.3-8. Facilitate quarterly meetings of the NIMC in conjunction with quarterly national project board meeting.

1.1.3-9. Engage in regular consultation and communication with other projects and initiatives at the national level, such as: CTI-CFF, RPoA-IUU, PEMSEA, etc.

Papua New Guinea:

1.1.3-10. Conduct an institutional assessment of relevant inter-ministerial agencies and subnational counterparts that would be involved in the NIMC, and including similar frameworks such as CTI, PEMSEA, etc.

1.1.3-11. Develop a TOR outlining the NIMC objective, operational plan, and roles and responsibilities of the members. This TOR will be annexed to the ATS national action program for PNG.

1.1.3-12. Facilitate an annual meeting of the NIMC in conjunction with the annual national project board meeting.

1.1.3-13. Engage in regular consultation and communication with other projects and initiatives at the national level, such as: CTI-CFF, RPoA-IUU, Torres Strait Treaty, etc.

Output 1.1.4 Financial mechanisms in place to support the implementation of the SAP and NAPs and the replication and upscaling of demonstration projects

114. Activities under Output 1.1.4 focus on strengthening financing mechanisms for sustainable implementation of the ATS SAP and NAPs. The regional level activities will start with development of a 5-year cost estimate and financing plan for implementation of the updated SAP. The start time of this 5-year plan will be set as the year following completion of the ATSEA-2 project. A financing strategy will also be prepared for the continued operation of the ATS regional governance mechanism, and assist regional and national level stakeholders in advocating for mainstreaming the required funding allocations into regional and national programming frameworks. In an effort to diversify financing contributions, the project will organize a regional

donor workshop, possibly in conjunction with the Coral Triangle Regional Business Forum[60], and facilitate possible partnerships moving forward.

115. With respect to timing, the activities under this output will be implemented coincident with Outcome 1.4, which includes development of an updated SAP and NAPs, including the first NAP for Papua New Guinea.

Activities for Output 1.1.4

Regional:

1.1.4-1. Based upon a review of international best practices, develop a 5-year cost estimate and financing plan for implementation of the updated ATS SAP. The financing plan will include estimated contributions from national and subnational budgets; identification of financing gaps; and an outline of alternative financing opportunities through public-private partnerships, donor funding, and other arrangements.

1.1.4-2. Develop an investment and financing strategy and plan for funding the operation of the ATS RCC and Secretariat for the period after closure of the ATSEA-2 project.

1.1.4-3. Organize a donor workshop in the 4th year of project implementation, possibly in collaboration with the Coral Triangle Regional Business Forum to explore opportunities for financing moving forward.

Indonesia:

1.1.4-4. Develop a 5-year cost estimate and financing plan for implementation of the NAP following its completion. The financing plan will include estimated contributions from national and subnational budgets; identification of financing gaps; and an outline of alternative financing opportunities through public-private partnerships, donor funding, and other arrangements.

Timor-Leste:

1.1.4-5. Develop a 5-year cost estimate and financing plan for implementation of the NAP following its completion. The financing plan will include estimated contributions from national and subnational budgets; identification of financing gaps; and an outline of alternative financing opportunities through public-private partnerships, donor funding, and other arrangements.

Papua New Guinea:

1.1.4-6. Develop a 5-year cost estimate and financing plan for implementation of the NAP. The financing plan will include estimated contributions from national and subnational budgets; identification of financing gaps; and an outline of alternative financing opportunities through public-private partnerships, donor funding, and other arrangements.

OUTCOME 1.2: STRENGTHENED INSTITUTIONAL AND HUMAN RESOURCE CAPACITY TOWARDS INTEGRATED APPROACHES IN NATURAL RESOURCE MANAGEMENT AND BIODIVERSITY CONSERVATION

116. Outcome 1.2 is designed to harmonize institutional and policy frameworks across the region, and to empower local and national government officials and other stakeholders by strengthening their

60 The Coral Triangle Regional Business Forum was created by Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) and other development partners to engage with the private sector in creating innovative business solutions that are both economically profitable and environmentally sustainable. www.ctibusinessforum.net

capacities in integrated approaches to resource management and biodiversity conservation. With the large number of national and local environmental laws and regulations, and the increasing convergence to international best practice, the primary problem is rather limitations in human resource capacities, the lack of enforcement, and the weaknesses of various instruments, such as incentive mechanisms. The issues can be mutually supporting; for example, if sufficient incentives are in place to encourage conservation or more sustainable use of biodiversity, carrying out unsustainable and destructive activities would be expected to decrease, thus removing demands on enforcement agencies.

117. As the project has a particular emphasis on small-scale fisheries in the three beneficiary countries, the institutional and human resource capacity building efforts will be closely aligned to the FAO voluntary guidelines on securing sustainable fisheries (SSF)[61].

118. There is a complementary GEF financed project currently under review, entitled "*Enabling transboundary cooperation for sustainable management of the Indonesian Sea Large Marine Ecosystem (ISLME)*[62] " which covers a geographic area different from the ATS. Based upon review of the draft project document and communications with the project preparation team leader, this FAO supported project will have a number of potential synergies between the ATSEA-2; e.g., joint training, regional exchanges, policy reviews, workshops, outreach to private sector stakeholders, etc. Potential synergies between the two projects are outlined below in **Box 2**.

Box 2: Potential synergies between the ISLME and ATSEA-2 projects		
ISLME Project	**ATSEA-2 Project**	**Potential Synergies**
Component 1: Identifying and addressing threats to the marine environment including unsustainable fisheries	**Component 1: Regional, National and Local Governance for Large Marine Ecosystem Management**	Use by ISLME project of the background information in the ATSEA TDA from its first phase; coordination of the conduct of the ISLME TDA with the update of ATSEA TDA Similar coordination in the drafting of the ISLME SAP with the updating of the ATSEA SAP Joint implementation of certain activities, including regional policy assessments, training workshops, etc. Observer status provided to each project for meetings of its respective regional coordination mechanism
Outcome 1.1: Regional agreement on the transboundary threats and their root causes to the marine environment (including fisheries) in the ISLME Outcome 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	Outcome 1.1: Regional and national mechanisms for cooperation in place and operational Outcome 1.2: Regional and national mechanisms for cooperation in place and operational Outcome 1.3: Better understanding of climate change impacts on marine and coastal ecosystems lead to regional actions Outcome 1.4: Updated transboundary diagnostic analysis (TDA), strategic action program (SAP), and national action program (NAPs)	
Component 2: Strengthening capacity for regional and sub-regional cooperation in marine resources management	**Component 2: Improving LME Carrying Capacity to Sustain Provisioning, Regulating and Supporting Ecosystem Services**	Joint development of EAFM capacity-building strategy; jjoint EAFM training; agreement on a common EAFM planning approach would also help build regional

[61] FAO, 2015. Voluntary Guidelines on Securing Sustainable Small-Scale Fisheries, in the Context of Food Security and Poverty Eradication, ISBN 978-92-5-108704-6

[62] Project under review; FAO Project ID 628979, GEF ID 5738

Box 2: Potential synergies between the ISLME and ATSEA-2 projects		
Outcome 2.1: Ecosystem Approaches to Fisheries Management (EAFM) and Ecosystem-Based Management (EBM) utilized for sustainable marine resource management Outcome 2.2: Regional and national governance of fisheries and natural resource management (including legal and institutional frameworks) strengthened 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 Outcome 2.4: Development policies are guided to support innovative opportunities for alternative livelihoods and blue growth development of coastal communities, especially those dependent upon fishing for their livelihoods Outcome 2.5: Development policies are guided to support innovative opportunities for alternative livelihoods and blue growth development of coastal communities, especially those dependent upon fishing for their livelihoods	Outcome 2.1: Improved management of fisheries and other coastal resources for livelihoods, nutrition and ecosystem health in Indonesia, Timor-Leste, and Papua New Guinea Outcome 2.2: Reduced marine pollution improves ecosystem health in coastal/ marine hotspots in the Arafura and Timor Seas Outcome 2.3: Coastal and Marine Biodiversity Conserved through Protection of Habitats and Species Outcome 2.4: Integrated Coastal Management, incorporating climate change adaptation considerations, implemented at the local level towards more sustainable use and conservation of ecosystem goods and services	consistency; similar joint efforts in other thematic trainings IUU and MCS stock-taking Development of a knowledge management tool and strengthening biodiversity information systems. The activities under the ATSEA2 project on IUU fishing will include small scale fisheries. There could be synergies between the two projects in this regard. The Ecosystem Approach to Aquaculture (EAA) planning and communication tools developed under the ISLME project could be applied as part of the integrated coastal management (ICM) activities under the ATSEA2 project. Aquaculture and mariculture activities are planned in ID and TL under the ATSEA2 project. Jointly carrying out a review of community based CCA and resilience building would be advisable.
Component 3: Strengthening capacity for regional and sub-regional cooperation in marine resources management	**Component 3: Knowledge Management**	Jointly carrying out a review of community based CCA and resilience building would be advisable. A joint regional workshop would also be advisable in sharing information, approaches, etc.
Outcome 3.1: Strengthened cooperation between fisheries, marine science and natural resource monitoring networks to contribute to ecosystem management of the ISLME Outcome 3.2: Regional ISLME knowledge platform developed to share information between stakeholders	Outcome 3.1: Improved monitoring of the status of the ATS and dissemination of information	

Output 1.2.1 Harmonization of national and local policy in Indonesia, Timor-Leste, and Papua New Guinea to strengthen the regulatory and institutional frameworks in support of SAP/NAP implementation and linkages to NBSAPs through support to national inter-ministerial committees

119. One of the first activities under Output 1.2.1 will be a regional assessment of existing regional and national cooperation mechanisms, legal frameworks, and administrative and technical arrangements. Based upon the findings of the regional assessment, a guidance document will be prepared including examples of model local and traditional bylaws which could be replicated or adapted in other areas within the ATS region.

120. Using the regional guidance document as a benchmark, national level policy assessments will be made. The project will then support advocacy efforts aimed at integrating enabling policies and incentive mechanisms into relevant national and subnational legislative and regulatory frameworks. The activities in Output 1.2.1 focus on the harmonization of national and local policies, to address conflicting or overlapping provisions that could lead to misinterpretation by government agencies and interest groups, and also to highlight best practices.

121. The ATS region is represented by specific subnational dimensions; the three Eastern Indonesian provinces of Maluku, NTT, and Papua; southern coast municipalities in Timor-Leste; and the

South Fly District within the Western Province of Papua New Guinea. The project will support differentiation of ATS issues among these subnational areas; including facilitating a Governors Forum for the three Indonesia provinces, and supporting discussions on joint coastal zone management along the south coast municipalities in Timor-Leste.

Activities for Output 1.2.1

Regional:

1.2.1-1. In conjunction with Activity 1.1.3-1, carry out an assessment of the political economy of regionalism. This will include review of existing regional and national cooperation mechanisms, legal frameworks, policies on marine development and conservation and on climate change adaptation, and administrative and technical arrangements. Based upon the results of the assessment, a regional guidance document will be prepared that summarizes enabling policies, incentive programs, progressive bylaws, etc.

Indonesia:

1.2.1-2. Conduct an assessment of national and subnational policies and regulations related to fisheries and biodiversity conservation and climate change adaptation, with emphasis towards identifying inadequacies and opportunities for strengthening provisions in support of integrated approaches, such as EAFM, EbA, etc., taking into account the regional context of the LME approach.

1.2.1-3. Based upon the regional and national assessments, in Activities 1.2.1-1 and 1.2.1-2, respectively, facilitate expert discussion on integrating enabling policies and incentives into national and provincial regulatory and development frameworks, in particular Act No. 23/2014 on Regional Governance, in order to advance the priority actions of the NAP.

Timor-Leste:

1.2.1-4. Conduct an assessment of national policies and regulations related to fisheries and biodiversity conservation and climate change adaptation, with emphasis towards identifying inadequacies and opportunities for strengthening provisions in support of integrated approaches, such as EAFM, EbA, etc.

1.2.1-5. Facilitate expert discussion on integrating enabling policies and incentives into national regulatory and development frameworks in order to advance the priority actions of the NAP, with particular emphasis on the south coast. This will be based upon the regional and national assessments, in Activities 1.2.1-1 and 1.2.1-5, respectively.

1.2.1-6. Facilitate ongoing expert discussions on strengthening the coastal development plan, which is part of the master plan for the south coast region.

Papua New Guinea:

1.2.1-7. Conduct an assessment of national and subnational policies and regulations related to fisheries and biodiversity conservation taking into account PNG's Sustainable Development Plan for 2010-2030 and Vision 2050, as well as the National Fisheries Management Plan developed by NFA.

Output 1.2.2 Localization and translation of guidelines and/or handbook on integrated approaches to marine and coastal management, biodiversity conservation and climate change adaptation in local language by building on existing/completed initiatives; implementation of training of trainers benefitting at least 100 participants in Indonesia, 60 in Timor-Leste, and 10 in Papua New Guinea

122. Activities under Output 1.2.2 are designed to provide tools, guidance, and lessons learned from other relevant projects and programs within the four littoral countries, the region, and also internationally, that will support the strengthening of institutional and human resource capacity required for implementing integrated approaches in natural resource management. Before delivering trainings and other capacity building activities, it will be important to assess current capacities and to identify gaps and priorities for action. Also important will be ensuring that capacity building initiatives developed under ATSEA-2 will be sustained beyond the lifespan of the project, e.g., by integrating into the professional development programs of national and subnational government, and be linked with other capacity building programs sponsored by regional organizations, NGOs, and others.

123. As much as possible, existing training curricula and guidelines will be used, such as the ICM code from PEMSEA[63], FAO-certified training modules on EAFM[64], as well as a number of guidance documents relating to MPA Network establishment, management and monitoring from the CTI-CFF[65], capacity building toolkits from Coral Triangle Center (CTC), - including those on climate change adaptation, etc. There could also be a regional exchange and best practices shared with the Learning and Training Network for Community-based Marine Resource Management, established by Papua New Guinea's Centre for Locally Managed Marine Areas, along with Conservation International, the Conservation and Environment Protection Authority, and local NGOs in Papua New Guinea. These guidelines and curricula will be adjusted to specific issues facing the ATS region and translated to local languages, if not already available, and also according to local social circumstances, e.g., making the materials more easily understandable for villagers who have had limited education.

124. Recognizing that regional and local trainers are positioned to be important change agents, the activities under this output will include developing and delivering training for trainers in each of the three beneficiary littoral countries, and supported, as much as practicable, by qualified Australian institutional stakeholders who can provide guidance on best practice and lessons learned there. The training of trainers activities are slated to benefit at least 100 participants in Indonesia, 60 in Timor-Leste, and 10 in Papua New Guinea. Where possible, regional training will be undertaken.

Activities for Output 1.2.2

<u>Indonesia</u>:

1.2.2-1. Undertake a capacity assessment to identify needs and priorities with respect to marine and coastal management, biodiversity conservation, and climate change adaptation for those charged with planning, design, and implementation roles. This will include stocktaking of existing handbooks and guidelines of relevance.

1.2.2-2. Develop a capacity building program on addressing the recommendations from the capacity assessment undertaken and building activities into capacity building programmes of key governmental and non-government organizations.

1.2.2-3. Roll out a train the trainer program, a tailored capacity building program. The "change agents" trained under this activity will be enabled to lead the broader capacity building program.

[63] http://www.pemsea.org/our-work/integrated-coastal-management/ICM-code

[64] For example: Staples, D.,Brainard, R., Capezzuoli, S., Funge-Smith, S., Grose, C., Heenan, A., Hermes, R., Maurin, P., Moews, M., O'Brien, C. & Pomeroy, R. 2014. Essential EAFM. Ecosystem Approach to Fisheries Management Training Course. Volume 1 – For Trainees. FAO Regional Office for Asia and the Pacific, Bangkok, Thailand, RAP Publication 2014/13, 318pp

[65] For example: CTI REAP-CCA (http://www.coraltriangleinitiative.org/library/region-wide-early-action-plan-climate-change-adaptation-nearshore-marine-and-coastal-environ)

1.2.2-4. Adapt key training materials identified in the capacity assessment according to local language and social circumstances.

Timor-Leste:

1.2.2-5. Undertake a capacity and needs assessment to identify needs and priorities with respect to marine and coastal management, biodiversity conservation, and climate change adaptation for those charged with planning, design, and implementation roles. This will include stocktaking of existing handbooks and guidelines of relevance.

1.2.2-6. Develop a capacity building program on addressing the recommendations from the capacity assessment undertaken and building activities into capacity building programmes of key governmental and non-government organizations.

1.2.2-7. Roll out a train the trainer program, a tailored capacity building program. The "change agents" trained under this activity will be enabled to lead the broader capacity building program.

1.2.2-8. Adapt key training materials identified in the capacity assessment according to local language and social circumstances.

Papua New Guinea:

1.2.2-9. Undertake a capacity assessment to identify needs and priorities with respect to marine and coastal management, biodiversity conservation, and climate change adaptation for those charged with planning, design, and implementation roles. This will include stocktaking of existing handbooks and guidelines of relevance.

1.2.2-10. Develop a capacity building program on addressing the recommendations from the capacity assessment undertaken and building activities into capacity building programmes of key governmental and non-government organizations.

1.2.2-11. Roll out a train the trainer program, a tailored capacity building program. The "change agents" trained under this activity will be enabled to lead the broader capacity building program. Possible linkages with the Learning and Training Network for Community-based Marine Resource Management will also be explored.

1.2.2-12. Adapt key training materials identified in the capacity assessment according to local language and social circumstances.

OUTCOME 1.3: BETTER UNDERSTANDING OF CLIMATE CHANGE IMPACTS ON MARINE AND COASTAL ECOSYSTEMS LEAD TO REGIONAL ACTIONS

125. The objective of this outcome is to improve understanding of climate change impacts on marine and coastal ecosystems, especially the impacts on those fisheries that are paramount to sustaining socio-economic development in the ATS region. As climate change impacts are expected to increase, affecting more and more people and disrupting infrastructure and ecosystems, it is imperative to educate national and local government planners and other decision makers, as well as the general public, about the need to implement resilient strategies and to allocate sufficient resources for climate change adaptation and mitigation measures.

Output 1.3.1 Improved understanding of climate change impacts on fisheries and marine/coastal ecosystems regional collaborative assessment

126. Activities under output 1.3.1 are designed to improve the overall understanding of climate change impacts of the ATS region and facilitate better regional collaboration. Leading institutional stakeholders within each of the four littoral countries will be engaged to jointly analyzing available information, summarizing key issues facing local users and policy makers, and then prepare a work plan for providing decision-making tools for managing ATS marine and coastal

ecosystems in the context of climate change disruptions. Depending on the results of these initial activities, it might be feasible to evaluate potential climate change impacts on marine biodiversity and fisheries using available computer modeling techniques, such as the Ecopath with Ecosim (EwE)[66] modelling software suite or other appropriate software.

127. Among the deliverables under this output, decision-making guidance toolkit will be developed that, for example, showing particular vulnerable areas and issues that could potentially impact the livelihoods of coastal communities and the ecosystem goods and services they are reliant on.

Activities for Output 1.3.1

Regional:

1.3.1-1. With participation by relevant national climate change professionals, undertake a regional review of current climate change studies and strategies within the ATS region.

1.3.1-2. Based on the results of Activity 1.3.1-1, prepare a detailed work plan for the activities under this output, through consultations with relevant regional and national ATS stakeholders, including members of the SPF and other existing expert and policy related forums.

1.3.1-3. Complete a collaborative assessment of relevant climate change impacts on marine and coastal ecosystems and resources in the ATS region.

1.3.1-4. Prepare a decision-making guidance toolkit, e.g., showing particular vulnerable areas and issues that could potentially impact the livelihoods of coastal communities and the ecosystem goods and services they are reliant on.

Output 1.3.2 Case study on climate change impact pathways on an ATS area-specific fishery; regional climate change workshop organized

128. The activities under Output 1.3.2 focus on transferring the scientific knowledge gained on expected impacts of climate change into specific adaptation strategies. A case study will be developed, using the guidance tools compiled under Output 1.3.1, on how climate change could affect fisheries, selecting one of the area-specific fisheries where the ecosystem approach to fisheries management (EAFM) will be applied under Outcome 2.1. Fisheries can be affected by climate change in a number of ways, including changes in sea temperature and circulation patterns, via acidification, the frequency and severity of extreme events, sea-level rise, and associated ecological changes to these phenomena. The associated direct and indirect impacts to communities are multi-fold, as illustrated below in **Figure 4**.

66 Ecopath with Ecosim (EwE) is a free ecological/ecosystem modeling software suite. EwE has three main components: *Ecopath* - a static, mass-balanced snapshot of the system; *Ecosim* - a time dynamic simulation module for policy exploration; and *Ecospace* - a spatial and temporal dynamic module primarily designed for exploring impact and placement of protected areas. www.ecopath.org

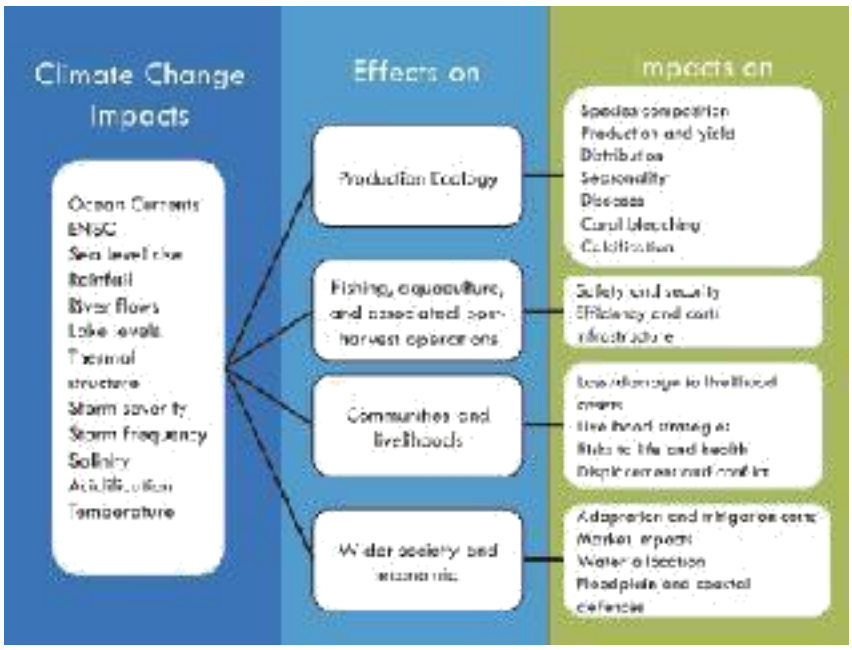

Figure 4: Climate change impact pathways in fisheries and aquaculture[67]

129. The case study will distill the potential impacts of climate change on fisheries and other ecosystem services, and presenting possible adaptation strategies that could be incorporated into an EAFM plan. Relevant adaptation strategic considerations include:
    - Reducing external stressors on natural systems; such as land-based pollution, destructive fishing practices, etc.
    - Identifying and protecting valuable areas.
    - Investing in safer harbors and landings.
    - Implementing early warning and forecasting systems.
    - Promoting disaster risk management, as part of integrated coastal management.
    - Mainstreaming the fisheries sector into local climate change adaptation and food security policies and plans.
    - Capacity building for enabling stakeholders, including resource users, resource managers, civil society, etc.
    - Facilitating financial mechanisms, such as insurance.
    - Monitoring of climate related parameters to support adaptive management practices.
    - Promoting safety at sea.
    - Addressing marine debris which could increase as a result of increased storm severity.
    - Investigating opportunities for creating added-value fishery products.

130. The results of the collaborative assessment made under Output 1.3.1 and the case study under this output will be shared at a regional climate change workshop organized by the project.

Activities for Output 1.3.2

<u>Regional</u>:

1.3.2-1. Prepare a case study on how climate change could affect the fisheries sector in the ATS region, focusing on a particular local fishery addressed under Outcome 2.1.

1.3.2-2. Organize a regional climate change workshop.

---

[67] Source: Shelton, C. 2014. *Climate change adaptation in fisheries and aquaculture – compilation of initial examples*. FAO Fisheries and Aquaculture Circular No. 1088. Rome, FAO. 34 pp. – adapted from Badjeck, M-C., Allison, E. Halls, A. & Dulvy, N. 2010. Impacts of climate variability and change on fishery based livelihoods. *Marine Policy*, 34: 375–383

OUTCOME 1.4: UPDATED TRANSBOUNDARY DIAGNOSTIC ANALYSIS (TDA), STRATEGIC ACTION PROGRAM (SAP), AND NATIONAL ACTION PROGRAM (NAPS)

131. The underlying objective of this outcome is to reach an agreement by all four littoral countries, including Papua New Guinea, on an updated strategic action program (SAP) in response to the set of priority environmental concerns elaborated in an expanded TDA. The ATS TDA will be expanded with additional information from Papua New Guinea, including primary data collection of coastal fisheries and benthic resources, and compilation of secondary data on biophysical and socio-economic conditions. The TDA will also be updated with relevant baseline conditions in the other littoral countries, if warranted, as well as with the additional knowledge obtained on climate change impacts and the proposed adaptation strategy statement, under Outcome 1.3. Agreements on the regional or transboundary governance of ATS (Output 1.1) including corresponding institutional arrangements at the national level will be considered, in addition to the expanded TDA, and will serve as the basis for the formulation of an updated regional SAP, which is envisaged to be endorsed through a new Ministerial Declaration, by representatives from each of the four littoral countries. The project will coordinate with the ISLME project, as practicable, in the formulation of the SAP, and the current developments with respect to the CTI-CFF regional action plan will also be represented in the program. Once the updated SAP is endorsed, the project will support Indonesia and Timor-Leste in renewing their NAPs, and assisting Papua New Guinea in developing their first NAP.

Output 1.4.1 Updated ATS transboundary diagnostic analysis (TDA) endorsed by the ATS Regional Coordination Committee

132. The focus of Output 1.4.1 is to update the ATS TDA with additional information obtained on regional or transboundary governance of ATS and climate change under Outcome 1.3, and to analyze biophysical and socio-economic conditions and the legal and institutional frameworks in Papua New Guinea, specifically the coastal and marine areas in the Western Province. The project will support a research cruise in Papua New Guinea, with collection of primary data on coastal fisheries and benthic resources. Cofinancing support is envisaged from the National Fisheries Authority (NFA) and possibly CSIRO, who has worked with the government of Papua New Guinea on traditional fisheries in the South Fly District. The updated TDA, including a more representative assessment of the priority environmental concerns in the ATS region, will be endorsed by the RCC.

Activities for Output 1.4.1

Regional:

1.4.1-1. Update the ATS transboundary diagnostic analysis (TDA) according to expanded climate change information obtained under Outcome 1.3, and more detailed representation of the conditions in Papua New Guinea as outlined below in Activities 1.4.1-3 and 1.4.1-4.

1.4.1-2. Hold a TDA validation workshop with the ATS Regional Coordination Committee, i.e., the regional project steering committee.

Papua New Guinea:

1.4.1-3. Collect and compile available biophysical and socio-economic characteristics of those areas in Papua New Guinea located within the ATS ecosystem.

1.4.1-4. Carry out an assessment of the current legal and institutional frameworks in Papua New Guinea, with respect to governance and management of coastal and marine resources and climate change adaptation.

Output 1.4.2 Updated SAP, incorporating improved understanding of climate change impacts, supported by Ministerial Declaration; NAPs updated or formulated accordingly

133. The objective of Output 1.4.2 is to achieve agreement on an updated regional strategic action program (SAP), formulated based upon the renewed analysis of priority governance and environmental concerns, including climate change impacts, outlined in the expanded TDA. Formulation of the SAP will also be supported by the ecosystem valuation that is planned under Output 2.3.1.

Activities for Output 1.4.2

Regional:

1.4.2-1. Update the ATS regional strategic action program (SAP) according to a renewed transboundary diagnostic analysis (TDA).

1.4.2-2. Facilitated by a regional Ministerial meeting, the updated SAP is endorsed through a Ministerial Declaration.

Output 1.4.3 National responses to the priority actions agreed upon in the updated SAP are formulated into national action programs and mainstreamed into national planning and budgetary frameworks

134. Based upon the updated SAP, each of the three beneficiary countries, Indonesia, Timor-Leste, and Papua New Guinea, will formulate national action programs (NAPs) to respond to the priority actions endorsed in the SAP. The NAPs will be presented to the national inter-ministerial committees (NIMCs) and the national project boards for endorsement. The project will also advocate for mainstreaming of the actions into national development programming and budgetary frameworks, such as medium term development plans.

Indonesia:

1.4.3-1. Renew the ATS NAP for Indonesia in response to the updated ATS SAP.

1.4.3-2. Validate the renewed Indonesia NAP through a special session with the NIMC and the national project board. Following validation, the NAP is endorsed by the national project board and NIMC.

1.4.3-3. Facilitate stakeholder consultations with the NIMC and national and subnational planning authorities, advocating for inclusion of specific actions included in the ATS NAP into national and subnational development planning and budgetary frameworks.

Timor-Leste:

1.4.3-4. Renew the ATS NAP for Timor Leste in response to the updated ATS SAP.

1.4.3-5. Validate the renewed Timor Leste NAP through a special session with the NIMC and the national project board. Following validation, the NAP is endorsed by the national project board and NIMC.

1.4.3-6. Facilitate stakeholder consultations with the NIMC and national and local authorities, advocating for inclusion of specific actions included in the ATS NAP into national development planning and budgetary frameworks.

Papua New Guinea:

1.4.3-7. Prepare an ATS NAP for Papua New Guinea in response to the updated ATS SAP.

1.4.3-8. Validate the PNG NAP through a special session with the NIMC and the national project board. Following validation, the NAP is endorsed by the national project board and NIMC.

1.4.3-9. Facilitate stakeholder consultations with the NIMC and national and subnational planning authorities, advocating for inclusion of specific actions included in the ATS NAP into national and subnational development planning and budgetary frameworks.

Component 2: Improving LME Carrying Capacity to Sustain Provisioning, Regulating and Supporting Ecosystem Services

135. Under this component, actions in response to the priority environmental objectives identified in the ATS SAP and the Indonesia and Timor-Leste NAPs will be implemented, with the overall objective of improving the status of ATS ecosystems through improved management of fisheries and other coastal resources for livelihoods, nutrition, and ecosystem health, and implementation of ICM plans. Under Outcome 2.1, the ecosystem approach to fisheries management (EAFM) will be implemented at the LME level for shared stocks and in area-specific fisheries in Indonesia, specifically in Fisheries Management Area 718 (Arafura Sea), and including red-snapper and shrimp fisheries in Aru, Indonesia; mackerel fisheries in Timor-Leste; and artisanal fisheries in the South Fly District, Papua New Guinea. Fisheries improvement projects (FIPs) are planned in Indonesia for red snapper and shrimp fisheries in Kabupaten Aru, Maluku Province and for barramundi fisheries in Kabupaten Merauke, Papua Province. The objective of the FIPs is to increase the preparedness the three fisheries towards eventual certification, with the aim of reducing IUU fishing and bycatch, and improving the status of threatened, vulnerable and endangered non-target species.

136. Regional and national level actions are planned to support implementation of the Regional Plan of Action for Responsible Fishing Practices Including Combatting IUU Fishing in the Region (RPoA-IUU[68]), including promotion of alternative fishing gear and strategies, such as techniques to reduce bycatch from long-lines and fish aggregating devices (FADs), and the use of vessel monitoring systems (VMS), resulting in reduction of the very high level of IUU fishing in the ATS by around 150,000 tons (SAP). The reduction is equivalent to 10% of the total estimated IUU fishing in ATS.[69]

137. Outcome 2.3 focuses on the biodiversity conservation elements of the SAP. Compilation of information on coral reefs, mangroves, and seagrass beds in the ATS, and identification of priority conservation areas in Indonesia and Timor-Leste, will be used to support a planned network of marine protected areas (MPAs), covering an estimated 1.5 million hectares and extending from the Lesser Sunda region to the south coast of Timor-Leste, southeast Aru Islands in Indonesia, and over to Kolepon Island located at the far eastern reaches of the Arafura Sea, near Merauke. The concept of a MPA network within the ATS region is consistent with the objectives of the Coral Triangle MPA System (CTMPAS) Framework and Action Plan[70] which was launched in 2013; specifically with respect to Strategy 1 of the CTMPAS Framework and Action Plan which reads "*Use and strengthen existing regional mechanisms, partners, programs, in developing and operating the CTMPAS*", and Strategy 2, which calls to "*Prioritize activities that develop effective*

[68] Voluntary instrument formulated and committed to by 11 countries in 2007, including the 4 littoral countries of ATS.

[69] The IUU fishing reduction target of 150,000 tons per year is based upon baseline figures from 2007. An updated baseline will be formulated during the first year of project implementation, as there have been substantive advances as a result of the nationwide moratorium on issuing permits to foreign fishing vessels that was initiated in 2014.

[70] Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF). 2013. Coral Triangle Marine Protected Area System Framework and Action Plan. CTI-CFF, United States Agency for International Development Coral Triangle Support Partnership and US National Oceanic and Atmospheric Administration, Cebu City, Philippines. 75 pp.

MPAs and networks and MPA/network sites that can immediately contribute strength or effectiveness to a regional network or system". The ATSEA-2 project brings the added benefit of expanding the discussion of regional MPA networks with inclusion of Australian waters.

138. In line with the biodiversity priorities outlined in the Indonesia and Timor-Leste NBSAPs, two national MPAs are planned to be designated under the project: a 555,000 ha MPA off the coast of Papua Province in Indonesia, in the vicinity of Kolepon Island; and a new 90,000 ha MPA off the south coast of Timor-Leste. Management plans will be prepared for these two MPAs, and financing aspects assessing the entire range of conservation finance options will be considered.

139. The project will support protected area management authorities in Indonesia and Timor-Leste in improving the management effectiveness and financial sustainability of the existing Southeast Aru MPA and Nino Konis Santana MPA, respectively. In support to communities situated close to the MPAs, locally managed marine area (LMMA) arrangements will be implemented on a pilot scale, introducing alternative, sustainable livelihoods and innovative techniques for managing and financing the MPAs.

140. Also, as part of the activities under the biodiversity focal area, the countries of Australia, Indonesia, and Timor-Leste have agreed in principle to have the project facilitate formulation of a regional action plan aimed at protection of endangered flagship marine turtles and possibly dugongs. The plan will build upon existing Australian knowledge and information, as well as in other countries. For example, although not part of the early phases of the project preparation phase, the Government of Papua New Guinea will also be included in the action plan. In fact, the Conservation and Environmental Protection Authority (CEPA) of Papua New Guinea has recently approved a management plan for turtles and dugongs for the South Fly District; something that could support the planned ATS regional action plan.

141. Under Outcome 2.4, Integrated Coastal Management (ICM) plans that integrate SAP/NAP priorities and biodiversity conservation and climate change adaptation concerns will be developed for an estimated combined125 km of coastline in Indonesia and Timor-Leste. Upon enactment of local decisions, the project will also support implementation of the ICM plans in Kabupaten Ndao in Nusa Tenggara Timur (NTT) Province, Indonesia, the Barique Posto Administrativo in the Município Manatuto, Timor-Leste. The project will collaborate directly with PEMSEA on the ICM activities in Timor-Leste, and also will support PEMSEA with tracking of regional-wide progress of ICM.As part of the ICM process, the project will also support climate change adaptation in at-risk coastal villages in Rote Ndao and Barique. Specific adaptation measures envisaged through consultation made in the project preparation phase include preservation and rehabilitation of mangrove forests and other vegetation to strengthen climate-resilient ecosystems.

142. As a cross-cutting issue, climate change will not only be addressed in the development and implementation of ICM plans. Linking the improved understanding of the potential impacts of climate change on the ATS coastal and marine ecosystems, climate change considerations will be integrated into the implementation activities planned under Component 2. Fisheries management plans, for example, will include adaptation strategies for responding to variations to physical conditions, such as water temperature, and possible consequential shifts in the dynamics of the particular fishery. With respect to pollution, the forecasted increased intensity of storm events would increase the risk for both land-based and marine based pollution, possibly resulting in more extensive impacts and rendering mitigation more difficult. Apart from the potential effects on fisheries, climate change will also likely influence the broader biodiversity of the ATS, and the level of uncertainty is quite high with regard to how habitats and species will be impacted.

143. A number of enabling decisions, listed below in **Table 4**, will be required for advancing the planned activities under Component 2. As discussed for Component 1, effective project

management and coordination and participatory stakeholder involvement will be critical in order to reach these decisions.

Table 4: Decisions Required for Key Outputs under Component 2

Scale	Key Output	Decision Required
Regional:	Regional EAFM Plan on Red Snapper Fisheries Agreed	Endorsement by RCC
	Design of Regional MPA Network	Endorsement by RCC
	Regional Action Plan on Enhanced Protection of Marine Turtles	Endorsement by RCC
Indonesia	Draft provincial decision (PERDA) submitted to Government of Maluku Province, regarding EAFM plans for red snapper and shrimp fisheries in Kabupaten Aru	Draft Provincial Decision (PERDA)
	Fisheries Improvement Project (FIP): Red Snapper, Aru	Endorsement by MMAF DG
	Fisheries Improvement Project (FIP): Shrimp, Aru	Endorsement by MMAF DG
	Fisheries Improvement Project (FIP): Barramundi, Merauke	Endorsement by MMAF DG
	Implementation of regulation on reducing Illegal, Unreported, and Unregulated Fishing	National Regulation issued by MMAF DG
	ICM Plan Approved, Kabupaten Rote Ndao	Kabupaten indicative document (Rote Ndao)
	Management effectiveness of Southeast Aru MPA upgraded from green to blue	Decree by MMAF DG Conservation
	MPA Kolepon designated (national MPA)	Ministerial Decree, MMAF
Timor-Leste	EAFM Plan for Mackerel Fisheries in Viqueque Approved	Approved by MAF Fisheries DG
	ICM Implementation Plan for Barique Posto Administativo Approved	Approved by MAF Fisheries DG
	MPA south coast designated (national MPA)	Ministerial Diplom, MAF
	Updated financial sustainability plan for MPA Nino Konis Santana approved	Approved by MAF Minister
Papua New Guinea	South Fly artisanal fisheries management plan approved	Endorsed by Treaty Villages Council and Western Province Administration, approved by NFA

OUTCOME 2.1: IMPROVED MANAGEMENT OF FISHERIES AND OTHER COASTAL RESOURCES FOR LIVELIHOODS, NUTRITION AND ECOSYSTEM HEALTH IN INDONESIA, TIMOR-LESTE, AND PAPUA NEW GUINEA

144. Outcome 2.1 will address factors that have constrained sustainable fisheries management in the ATS countries including overfishing, destruction of natural habitats, and IUU fishing. This will be accomplished through the implementation and adoption of comprehensive and integrated ecosystem-based approaches to natural resource management and conservation at the national and regional levels. Among the activities under this outcome, the ecosystem approach to fisheries management (EAFM) will be implemented on red snapper across a LME scale, specifically the Arafura Sea waters in Indonesia, and also on area-specific shrimp and mackerel fisheries. Improved fisheries management activities are also planned for these fisheries, as well as on barramundi fisheries in Kabupaten Merauke of Papua Province in Indonesia and in the South Fly District of Western Province in Papua New Guinea.

145. The project will provide incremental support to the regional and national efforts aimed at reducing IUU fishing, including building upon the national responses to the RPoA-IUU, and also the ramped up efforts in Indonesia since 2014, when the newly appointed Minister of MMAF spearheaded a nationwide program at combating IUU fishing, with a particular focus on the Arafura Sea. The improved management of ATS fisheries will be rooted in the underlying principles of the FAO Code of Conduct for Responsible Fisheries (CCRF), and based on the FAO Voluntary Guidelines for Sustainable Small-Scale Fisheries (SSF).

Output 2.1.1 Ecosystem approach to fisheries management (EAFM) targeting women and men fishers implemented at the LME level for shared stocks and in area-specific fisheries

146. Activities under Output 2.1.1 are designed to improve the management of fisheries and other coastal livelihood, nutrition and ecosystem health through the implementation of EAFM (see **Box 3**) in several selected fisheries, including the red snapper fishery at the regional level, shrimp fisheries for Indonesia and the mackerel Fishery for Timor-Leste. According to FAO (2003)[71], the Ecosystem Approach to Fisheries Management "*strives to balance societal objectives by taking into account the knowledge and uncertainties about biotic, abiotic, and human components of ecosystems and their interactions and applying an integrated approach to coastal and marine resource (including fisheries) management within ecologically meaningful boundaries"*. EAFM can also include bycatch reduction, gear technology improvements, and gear retention strategies, in an effort to support objectives around reducing pollution and threats to megafauna species.

Box 3: Key Principles addressed by Ecosystem Approach to Fisheries Management (EAFM)

The key principles addressed by EAFM are as follows:

- Fisheries should be managed to limit their impact on the ecosystem to an acceptable level;
- Ecological relationships between species should be maintained;
- Management measures should be compatible across the entire distribution of the resource;
- Precaution in decision-making and action is needed because the knowledge on ecosystems is incomplete;
- Governance should ensure both human and ecosystem well-being and equity.

Source: FAO

147. At the heart of the EAFM process is an integrated management plan: developed, implemented, monitored, and reviewed in a multi-year cyclical process, illustrated below in **Figure 5**, and based on the FAO Code of Conduct for Responsible Fisheries (CCRF[72]). Through the management plan, the implementing partners put forth an EAFM that is adaptive, precautionary, tuned to resilience, and centered on goals that are relevant to the scale and scope of EAFM. EAFM is an adaptive management process in which stakeholder participation and a co-management approach play a central role in its implementation. The Fisheries Resource Directorate of MMAF is responsible to the implementation of EAFM in Indonesia, the Ministry of Agriculture and Fisheries is the responsible agency in Timor-Leste, and the National Fisheries Authority (NFA) in Papua New Guinea. In Indonesia, the EAFM implementation in the proposed study area has been articulated in the Fisheries Management Plan 718. This management plan has not yet been fully implemented by the stakeholders in the region due to lack of scientific information to support the plan, coupled with minimum consultations. The project will address these shortcomings, assisted with scientific data collection, and supporting integration of climate change considerations into fisheries management. Particular emphasis will be put on stakeholder consultations that include relevant groups of society, including women and socially excluded groups.

[71] FAO 2003, Fisheries Management, 2. The Ecosystem Approach to Fisheries, Technical Guideline for Responsible Fisheries, Vol. 4, Suppl. 2, ISBN 92-5-104897-5

[72]

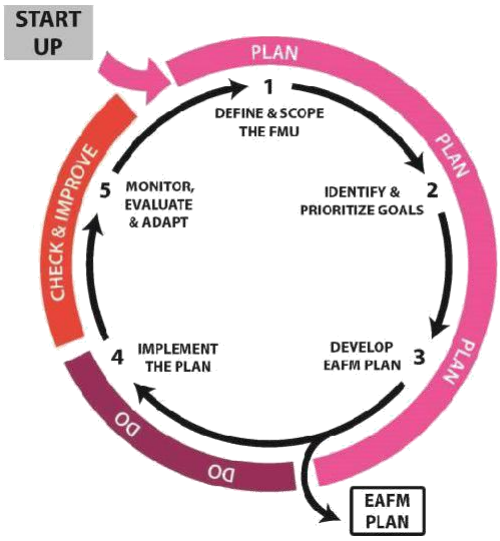

Figure 5: The 5-step EAFM planning process[73]

148. Women will be involved in the EAFM processes, including strengthening of the Women's Forum for Customary Communities in Kabupaten Aru, and promoting increased women's participation in Timor-Leste.

149. The focus of many of the field interventions are small-scale fishers, including in Aru and Merauke in Indonesia, Viqueque in Timor-Leste, and South Fly in Papua New Guinea. The activities will be implemented in accordance with the relevant sections of the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF).

Activities for Output 2.1.1

<u>Regional</u>:

2.1.1-1. Develop a work plan for the EAFM planning steps required for realizing a LME scale EAFM plan for the red snapper fishery.

2.1.1-2. Carry out profiling of the red snapper fishery, including conducting a stock assessment using the survey vessel.

2.1.1-3. Based upon the results of the fisheries profile, develop the EAFM plan through: (1) identifying and prioritizing issues and goals, through stakeholder consultations; (2) developing objectives, indicators, benchmarks, and monitoring and evaluation tools; and (3) design a set of management measures to implement over the course of the ATSEA-2 project.

2.1.1-4. Facilitate endorsement of the EAFM plan by the ATS Regional Coordination Committee.

2.1.1-5. Engage the services of FAO-certified EAFM training centers to deliver EAFM training to fisheries resource managers from Indonesia, Timor-Leste, and Papua New Guinea. Working with the national focal points, compile a list of resource managers to obtain training: 5 from Indonesia, 5 from Timor-Leste, and 5 from Papua New Guinea.

[73] Source: Pomeroy, R., R. Brainard, M. Moews, A. Heenan, J. Shackeroff, and N. Armada. *Coral Triangle Regional Ecosystem Approach to Fisheries Management (EAFM) Guidelines*. Publication. Honolulu, Hawaii: The USAID Coral Triangle Support Partnership, 2013

2.1.1-6. Rights-Based Management Approach. Organize a regional exchange visit for selected members of the working group to Australia, to gain information from best practices and lessons learned in implementation of rights-based management approaches there. Following the exchange visit, at least one community in Indonesia, Timor-Leste, and Papua New Guinea develop and implement a local bylaw on rights-based management approach to inshore red snapper fisheries.

2.1.1-7. Catch Control (Marine Turtle Bycatch Release). In conjunction with activities under Outcome 2.3, implement turtle bycatch release programs in the selected areas in the ATS region.

Indonesia: Fisheries Management Area 718

2.1.1-8. In collaboration with the FMP 718 fisheries management body, the project will facilitate development of a work plan for the EAFM planning steps required for realizing EAFM plans for red snapper and shrimp fisheries in Aru Islands District, Maluku Province.

2.1.1-9. In conjunction with Activity 2.1.2-3, carry out profiling of the red snapper, shrimp, and barramundi fisheries.

2.1.1-10. Based upon the results of the fisheries profile, develop the EAFM plan through: (1) identifying and prioritizing issues and goals, through stakeholder consultations; (2) developing objectives, indicators, benchmarks, and monitoring and evaluation tools; and (3) design a set of management measures and outreach programs to implement over the course of the ATSEA-2 project.

2.1.1-11. Facilitate approval of the EAFM plans through provisioning of draft provincial decision (PERDA) to be submitted to the Government of Maluku Province.

2.1.1-12. Education. Conduct training on EAFM certified by the Agency for Human Resource Development (BPSDM) for at least 20 Fisheries Resource Managers on Demersal and shrimp Fisheries.

2.1.1-13. Catch Control. Support the newly launched Data and Statistic Improvement Program towards catch-based data at the Directorate of Fisheries Resource Management of MMAF by piloting the implementation of a new method of data collection at targeted villages in Aru and Merauke.

2.1.1-14. (Strengthening Women's Forum for Customary Communities in Aru). Strengthening sustainable fisheries management for improved livelihoods.

2.1.1-15. Incentives, Marine Turtle Bycatch Release (Aru, Merauke, Tual/Lanngur. In collaboration with other interventions, working with fishers to reduce net entanglement and bycatch of marine turtles through improved gear technology and handling practices.

Timor-Leste:

2.1.1-16. Carry out (profiling) stock assessment and value chain assessment of the mackerel fishery in south coast of Timor-Leste water especially in Municípios Viqueque, Manatuto, and Manufahi.

2.1.1-17. Develop the EAFM plan using the outcomes of the profiling in Activity 2.1.1-17, in consultation with key stakeholders, for endorsement by the Fisheries DG. The EAFM Plan should include (1) issues and goals; (2) objectives, indicators, benchmarks (reference points), and monitoring and evaluation tools; and (3) a set of management measures and an outreach program.

2.1.1-18. Establish a Fisheries Advisory Committee at national level that may include groups affected by the management decisions or dependent upon the resources to be managed, with claims over the area or resources.

2.1.1-19. Conduct training on EAFM for at least 10 Fisheries Resource Managers from Viqueque, Manatuto, Lautem and Suai on the Mackerel fishery

2.1.1-20. Support capacity building activities to improve the sustainability and economic viability of fishers targeting mackerel.

Papua New Guinea:

2.1.1-21. Conduct training on EAFM for about 10 Fisheries Resource Managers from Western Province.

2.1.1-22. Develop an artisanal fisheries management plan for the South Fly District.

2.1.1-23. Rights based Management (Strengthen Collective Values). Working with subnational stakeholders, including the Provincial Administration, Local Level Government Administrations, and the Treaty Villages Council, design and deliver an awareness campaign focused on the community level. Awareness activities will include understanding of the value of endangered species including marine turtles and dugongs. Scope: the Treaty villages.

2.1.1-24. Rights based Management (Develop Institutional Framework). Working with subnational stakeholders, including the Provincial Administration, Local Level Government Administrations, and the Treaty Villages Council, through a participatory process develop community management rules for a single or multiple species. Scope: the Treaty villages.

Output 2.1.2 Development of profiles of 3 fisheries in the ATSEA, value-chain analysis and pre-assessment to move selected fisheries towards certification/eco-labelling

150. Activities under Output 2.1.2 are designed to improve the practice of selected fisheries towards environmental sustainability and better recognition in the marketplace. The first step in such a process is termed a fisheries improvement project (FIP – see **Box 4**). A FIP brings together multiple fishery stakeholders, including fishers, the private sector, fishery managers, researchers, and NGO, who collaborate to improve fishing practices and management. The involvement of multiple stakeholders with varying perspectives and backgrounds ensures that the FIP activities are appropriate for the socio-political context of the fishery.

Box 4: Definition of Fisheries Improvement Project

In July 2015, following deliberations by a Board/Stakeholder Council working group, the Marine Stewardship Council (MSC) Board of Trustees approved an MSC definition of credible FIPs. The definition advocates that a credible FIP should be characterised by:

- An initial gap analysis against the MSC Standard (**MSC pre-assessment**);
- An **action plan** inclusive of activities, budgets, roles and responsibilities, that is linked to the MSC performance indicators and scoring guideposts and is ultimately capable of delivering an unconditional pass against the MSC Standard;
- Regular **reporting of progress** against the action plan;
- Presence of a mechanism to **verify and provide assurance** about the robustness of the **process and progress** being made in the FIP (i.e. pre-assessment and progress reports prepared or reviewed by an MSC assessor or an independent technical consultant);
- A **pre-determined limit** to the amount of time spent as a FIP, which should generally be no longer than five years;
- An **upfront commitment to enter full MSC assessment** and achieve MSC certification through a transparent, third party process, to verify the success of the FIP.

The above guidance is intended to be used as a roadmap to sustainability, and to provide clarity to FIP providers, fisheries, retailers and stakeholders on what constitutes a credible FIP. The MSC recommends that partners apply it to the development of effective and time-bound fishery

improvement projects, and encourages retailers to use these criteria to assess the credibility of a FIP, should they take the independent decision to include FIPs in their sourcing policies.

Source: Marine Stewardship Council, www.msc.org

151. FIPs are planned for three fisheries: red snapper and shrimp in Kabupaten Aru, and barramundi in Kabupaten Merauke. The red snapper FIP for Aru will be made in collaboration with PT Intan Seafood, a private sector enterprise that has conducted FIP on Red Snapper Fisheries in the Arafura Sea, The incremental GEF funding for the FIPs provides foundational support for eventual MSC certification, which will be spearheaded by the capacitated enterprises based upon market opportunities. As part of the FIP process, the project will work closely with the enabling stakeholders on assessing sustainable financing options for achieving and maintaining MSC certification. An additional added value of the project is the incorporation of climate change considerations into the development of the FIPs.

Activities for Output 2.1.2

Indonesia:

2.1.2-1. Prepare a detailed work plan for the activities under this output, through consultations with relevant regional and national ATS stakeholders, including members of the SPF and other existing expert and policy related forums.

2.1.2-2. Conduct Value-Chain Analysis on red snapper, shrimp and barramundi fisheries in ATS region.

2.1.2-3. Develop Fisheries profile of red snapper and shrimp fisheries in Aru, and of barramundi fishery in Merauke.

2.1.2-4. Facilitate legal framework at district, provincial and national levels to assure the endorsement by "*DG Penguatan Daya Saing Produk Kelautan dan Perikanan*" (DG Competitive Strengthening of Marine and Fisheries Products) on action plan for improvement of the three fisheries.

2.1.2-5. Develop guidance tools for sustainable fisheries operation of the three fisheries in cooperation with private sector (export companies), including options for sustainable financial mechanisms for achieving and maintaining eventual MSC certification.

2.1.2-6. Training of fisheries managers, conservation authorities, non-governmental organizations, and fishermen of shrimp in Aru and barramundi in Merauke using MSC guidelines.

2.1.2-7. Establish electronic database linking to traceability and trade at district and national levels.

2.1.2-8. Facilitate and conduct pre-assessment activities based on the MSC guidelines on shrimp fishery in Aru and barramundi fishery in Merauke.

Output 2.1.3 Regional and national actions strengthened in support of the Regional Plan of Action for Responsible Fishing Practices Including Combating IUU Fishing in the Region and the Indonesian Presidential Task Force on Combating Illegal Fishing, e.g., through better surveillance, enforcement and monitoring, resulting in a further reduction of IUU fishing in the ATS by 10%, around 150,000 tons

152. Activities under Output 2.1.3 are designed to assist the implementation of RPoA-IUU fishing in the ATS-wide region in increasing the capacity of people and institutions involved in marine capture fisheries for Indonesia, Timor-Leste, and Papua New Guinea to develop their abilities, individually and collectively, to ensure the sustainable development of the region's marine capture fisheries, based on current and emerging trends, challenges and needs. Activities in this

output will also take as a baseline the results from earlier studies by ATSEF (Wagey et al. 2009[74]) to be updated. In the review study conducted in 2007, the total amount of IUU fishing from Arafura Sea was at 1.5 million tons / year between the years of 2001-2005. The baseline IUU fishing figures will be updated at project inception phase.

153. The RPoA-IUU issued in 2007 addresses eleven action components: (i) the current resource and management situation in the region, (ii) implementation of international and regional instruments, (iii) role of regional and multilateral organisations, (iv) coastal State responsibilities, (v) flag State responsibilities, (vi) port State measures, (vii) regional market measures, (viii) regional capacity building, (ix) strengthening monitoring, control and surveillance (MCS) systems, (x) transhipments at sea, and (xi) implementation.

154. The project will provide incremental support to the regional and national efforts aimed at reducing IUU fishing, including building upon the national responses to the RPoA-IUU, and also the ramped up efforts in Indonesia since 2014, when the newly appointed Minister of MMAF spearheaded a nationwide program at combating IUU fishing, with a particular focus on the Arafura Sea. Indonesia has a long running effort to combat illegal fishing. In 2015 these efforts were elevated to the level of a Presidential Task Force on Combating Illegal Fishing. Since October 2014, the Indonesia Government has made concerted efforts at tackling illegal fishing, including issuing a moratorium on registration of foreign vessels,

Activities for Output 2.1.3

Regional:

2.1.3-1. Prepare a detailed work plan for the activities under this output, through consultations with relevant regional and national ATS stakeholders, including members of the SPF and other existing expert and policy related forums

2.1.3-2. Conduct study to refine baseline estimates of IUU fishing (quantitatively – in volume and value) in the ATS region with country level estimates.

2.1.3-3. Review national policies and regulations in Indonesia, Timor-Leste, Papua New Guinea, and Australia towards strengthening the capacity on data collection, format, and exchange.

2.1.3-4. Participate in the annual RPOA-IUU ATS group meeting to identify priority areas of support by the project to the countries.

2.1.3-5. Voluntary Compliance. Support efforts in developing tools to complete "Global Record of Fishing Vessels Refrigerated transport and Supply vessel (Global Record)" initiative, and methods on listing and de-listing fishing vessels as these relate to the ATS region.

2.1.3-6. Strengthening MCS Information System. Conduct Monitoring Controlling and Surveillance training in collaboration with RPOA-IUU ATS sub-regional group.

2.1.3-7. Community based Surveillance. Coordinate program with RPoA-IUU Secretariat in Jakarta to strengthen community-based surveillance in selected ATS sites.

Indonesia:

2.1.3-8. Conduct study to estimate IUU fishing (quantitatively - in tons) in FMA 718.

2.1.3-9. Conduct assessment of IUU fishing (mostly as unreported) of small-scale fishers (< 30 GT) in Aru, Merauke, Tanimbar, and Rote Ndao with the results feeding into Activity 2.1.3-2.

[74] Wagey, G.A., S. Nurhakim, V.P.H. Nikijuluw, Badrudin, and T.J. Pitcher. 2009. A A study of Ilegal, Unreported and Unregulated (IUU) fishing in the Arafura Sea, Indonesia. Research Centre for Capture Fisheries, MMAF. Jakarta, 54 pp.

2.1.3-10. Improve Registered Vessels System. In collaboration with MMAF, support the program of "Registered vessels from Indonesian Archipelagic Waters (R-VIA) that has been implemented in the Arafura Sea.

2.1.3-11. Community based Surveillance. Coordinate program with RPoA-IUU secretariat in Jakarta to strengthen community-based surveillance (*Kelompok Pengawasan Masyarakat - PokWasMas*) in Aru and Merauke.

Timor-Leste:

2.1.3-12. Facilitate the implementation of NPoA for IUU fishing.

2.1.3-13. Conduct study to estimate level of IUU fishing with results feeding into Activity 2.1.3-2 (regional study).

2.1.3-14. Conduct training to promote community-based surveillance by sponsoring fishers training in Viqueque, Manufahi and Covalima on IUU fishing vessels identification methods and other surveillance measures.

2.1.3-15. Conduct training on Independent Monitoring System for enumerators and analysts to be involved in fishing expeditions on private fishing vessels operating along the south coast.

Papua New Guinea:

2.1.3-16. Community based Monitoring, Control, and Surveillance. Working with the Treaty Villages Council, Ward Development Committees, the Western Province Fisheries Office, and NFA, strengthen community based monitoring, control, and surveillance. For example, a MCS reporting system would be developed.

OUTCOME 2.2: REDUCED MARINE POLLUTION IMPROVES ECOSYSTEM HEALTH IN COASTAL/ MARINE HOTSPOTS IN THE ARAFURA AND TIMOR SEAS

155. Outcome 2.2 is designed to strengthen the enabling conditions and capacities in response to the third regional priority environmental objective of "Reducing Land-Based and Marine Sources of Pollution". Completion of a pollution regional hot spot analysis will provide a practical framework for decision makers to prioritize pollution reduction strategies and to better allocate resources for implementing pollution reduction initiatives.

156. This outcome also includes activities aimed at strengthening regional and local oil spill early warning systems and capacities. National and regional best regarding oil spill preparedness and response will be shared among ATS stakeholders, and focused on-the-ground trainings organized in selected local communities.

Output 2.2.1 Enhanced data and information regarding the sources and sinks of contaminants in the ATS; pollution hotspots identified; appropriate controls of point and non-point sources of pollution initiated; oil spill early warning systems and capacities strengthened

157. Activities under Output 2.2.1 are focused on data gathering of point and non-point sources of pollution through a hotspots analysis. In response to Target 3.2 of the ATSEA SAP which reads **"**Reduction in the incidence and impacts of marine-based pollution from base year**"**, baseline conditions on marine pollution will be estimated as part of the hotspots analysis. The results of the hotspots analysis will be presented at a regional workshop, possibly in conjunction with the annual SPF. The workshop will include training on development of Pollution Prevention and Control Plans for local communities, and also information will be presented to the participants on oil spill preparedness and response and also impacts of land-based, small-scale mining activities. The discussion will also cover how climate change might exacerbate the risks and

resulting impacts of pollution, and what actions could be included in national and subnational adaptation plans to improve resilience and preparedness.

158. As part of the integrated coastal management activities under Outcome 2.4, the Kabupaten Rote Ndao in NTT Province in Indonesia and the Município Manatuto will be supported by preparing Pollution Prevention and Control Plans and by delivering training to local authorities and relevant community groups.

Activities for Output 2.2.1

Regional:

2.2.1-1. Prepare a detailed work plan for the activities under this output, through consultations with relevant regional and national ATS stakeholders, including members of the SPF and other existing expert and policy related forums.

2.2.1-2. Carry out a regional assessment of marine and land-based pollution hotspots through country studies aggregated at the LME level. Baseline conditions regarding incidence and impacts of marine pollution will be estimated as part of the hotspots analysis.

2.2.1-3. Organize a regional workshop, possibly coincident with the annual SPF meeting, to present the results of the hot spot analysis, and sponsor information sharing on oil spill preparedness and response and also impacts of land-based sources of pollution and other marine based sources.

2.2.1-4. Regional exchange on oil spill response and preparedness for select disaster management local authorities and community representatives.

Indonesia:

2.2.1-5. Undertake a pollution hotspot analysis for the Indonesia portion of the ATS region; with results feeding into the regional assessment under Activity 2.2.1-2.

2.2.1-6. Using ICM multi-sectoral coordination structures formed under Outcome 2.4, develop a Pollution Prevention and Control Plan as a part of the ICM process in Kabupaten Rote Ndao. This activity will include Stakeholder engagement to determine goals, scope and priorities for action for managing point and non-point source pollution.

2.2.1-7. Oil Spill Response and Preparedness Training. Training on oil spill response and preparedness for stakeholders in the district of Kabupaten Rote Ndao. This will include establishing and testing communication links to villages regarding critical information, such as health impacts, whether safe to fish/harvest seaweed, etc., that will need to be communicated in a disaster response situation.

Timor-Leste:

2.2.1-8. Undertake a pollution hotspot analysis for the Timor-Leste portion of the ATS region; with results feeding into the regional assessment under Activity 2.2.1-2.

2.2.1-9. Develop a Pollution Prevention and Control Plan, using the ICM multi-sectoral working group formed under Outcome 2.4 as a part of the ICM process for Município Manatuto. This activity will include extensive stakeholder engagement to determine goals, scope and priorities for action for managing point and non-point source pollution.

2.2.1-10. Undertake an awareness campaign regarding pollution management for Barique Posto Administrativo, Município Manatuto.

2.2.1-11. Training on oil spill preparedness and response for stakeholders in the south coast region.

OUTCOME 2.3: COASTAL AND MARINE BIODIVERSITY CONSERVED THROUGH PROTECTION OF HABITATS AND SPECIES

159. Outcome 2.3 focuses on the biodiversity conservation elements of the SAP, in particular through the protection of priority coastal and marine habitats and conservation of protected species. The first step will be a regional stock-taking of key biodiversity habitats, including coral reef, seagrass, and mangrove ecosystems, and identifying priority conservation areas, through extensive stakeholder consultation. The project is also providing resources to support efforts at strengthening regional biodiversity information management systems. Furthermore, the potential impacts of climate change on the biodiversity of the coastal and marine ATS ecosystems will be addressed, and adaptive strategies integrated into the protected area management plans and regional action plans for enhanced protection of key species.

160. The Governments of Indonesia and Timor-Leste have both requested ATSEA-2 to support design and designation of new marine protected areas (MPAs), one in each country, covering a total of approximately 645,000 ha. Realizing this level of additional MPA coverage will representative a substantive step forward with respect to enhanced protection of ATS ecosystems and conservation of marine biodiversity. In addition to supporting establishment of new MPAs, the project will also assist protected area management authorities in Indonesia and Timor-Leste in strengthening the management effectiveness of the Southeast Aru MPA and the Nino Konis Santana MPA, respectively. As both of these MPAs – and the two planned new ones – are multiple use protected areas, the project has also allocated considerable resources towards improving involvement of local communities, through collaborative management arrangements, awareness raising, and alternative livelihoods.

161. Using the lessons learned and experiences of the CTI-CFF to create a regional MPA system framework (CTMPAS), the project will support design of a regional MPA Network for the ATS. The network is envisaged to cover an estimated 1,500,000 ha, building on existing MPAs in the region, e.g., South East Aru Conservation Area and NKS National Park, as well as align to activities underway to advance the Lessor Sunda Ecoregion (particularly for Timor-Leste) to build resilience against climate change across the ATS for vulnerable ecosystems and communities, along with improving EAFM and biodiversity conservation. Furthermore, the ATSEA-2 project has the added advantage of considering the MPAs within Australian waters in the regional network, resulting in an ecological representative coverage. It will be important to ensure strong community and other stakeholder engagement across the countries throughout this process to manage expectations, build ownership and most importantly provide clear objectives for regional marine protected area network planning.

162. Finally, enhanced protection of endangered marine turtles will be supported, in conjunction with Outputs 2.1.1 and 2.3.2, fully in line with the NBSAPs in both countries and the regional SAP. A regional actin plan will be developed, focusing on improving the conservation and protection of key habitats and reducing key threats from fishing through bycatch and illegal hunting and trade. Improving regional collaboration, conservation and management will be critical, given the migratory nature of marine turtles. Also important will be strengthening EAFM and compliance approach around reducing impacts through bycatch and illegal take.

Output 2.3.1 Updated information and database on coral, mangrove and seagrass beds in the ATS, supported by ecosystem valuation studies; priority conservation areas identified in Indonesia and Timor-Leste

163. Activities under Output 2.3.1 are designed to improve knowledge and understanding of baseline data to inform the management of coral reefs, mangroves and seagrass beds in the ATS. Key activities will focus on supporting existing projects that are updating or undertaking mapping of the extent of key ecosystems in the ATS through aerial surveys, followed with a ground truth

survey to identify species and condition. Activities under this output will also include an ecosystem valuation, addressing the unique conditions in the ATS region, building upon lessons learned among CTI countries, and taking into account similar valuations made for LMEs. The activities under this output will also be closely linked with Outcome 3.1, i.e., establishment of a transboundary ATS monitoring and reporting system for SAP implementation.

164. Under the national level activities, priority conservation areas in Indonesia and Timor-Leste will be identified using the information from the regional surveys and ecosystem valuation, to inform the development and management of MPAs in the region for Output 2.3.2. Working through and with local government offices and communities will be essential to ensure that the stakeholders of the area are fully engaged in the process to the highest degree possible. Using existing tools, such as the Coral Triangle Atlas, regional information management systems will be strengthened, promoting further transboundary data sharing and supporting the establishment of a regional MPA Network for the ATS and those MPAs identified at the national level.

Activities for Output 2.3.1

Regional:

2.3.1-1. Prepare a detailed work plan for the activities under this output, through consultations with relevant regional and national ATS stakeholders, including members of the SPF and other existing expert and policy related forums.

2.3.1-2. After objectives are agreed upon in the work plan developed under Activity 2.3.1-1, a desktop review and gap analysis will be carried out to collate existing knowledge and understanding of baseline data, for example coral reefs, mangroves, and seagrass ecosystems, as well as climate change impacts and turtle conservation in the ATS. From this a regional profile of ecosystem assets and connectivity and an evaluation of pressures will be developed.

2.3.1-3. Carry out ecosystem valuation at the regional and national levels.

2.3.1-4. Support regional MPA information management in the ATS region, with respect to ecological, governance, and socio-economic issues. This could include expanding the CT Atlas to incorporate ATS information as well as strengthening the Indonesian biodiversity information system (BCH) with the information collected on critical habitats.

2.3.1-5. Support existing programs in the mapping of critical habitats for protected species, including turtles, as well as biodiversity hotspots, building on work of REBYC II to identify priority conservation areas in the ATS through cross-sectoral stakeholder consultation, including an expert workshop.

Indonesia:

2.3.1-6. Building upon the results of the regional activities listed above and on those of CTI-CFF, work with relevant governmental, NGO, and institutional level stakeholders in identifying priority marine and coastal conservation areas.

Timor-Leste:

2.3.1-7. Building upon the results of the regional activities listed above and on those of CTI-CFF, work with relevant governmental, NGO, and institutional level stakeholders in identifying priority marine and coastal high conservation value areas.

Output 2.3.2 New MPAs designated in Indonesia and Timor-Leste; covering about 645,000 ha in area, including approximately 220,000 ha of mangrove ecosystems; with corresponding management plans prepared and implemented; and regional ATS MPA network designed

165. Activities under Output 2.3.2 are designed to improve the management of existing MPAs in the ATS as well as extend the coverage of important biodiversity seascapes under MPAs in Indonesia and Timor-Leste, and on a regional scale.

Regional:

166. Using data collected in Output 2.3.1, a regional ATS MPA network will be designed through scientific assessment and consultation, including with stakeholders from each of the four ATS littoral countries, in order to ensure relevant representation in the design of the network. The process will include setting the objectives of the network; identifying the key conservation features, threats and uses of the area; applying relevant conservation planning tools; and facilitating input from relevant government agencies, local stakeholders and scientific experts though workshops and meetings. Learning from experiences in Lesser Sunda, high resolution satellite imagery and ground-truth activities could be used to refine the analysis in designing the MPA network. The MPA Network design will also factor in the activities in output 2.3.3 to ensure cross benefit for improving conservation and management of important habitats for marine turtles.

167. The actions required to realize designation and eventual gazetting of selected ATS regional MPA network will be included into the ATS national action programs (NAP's) for Indonesia and Timor-Leste, and mainstreamed into medium term development frameworks in the two countries by project closure.

Indonesia:

168. For Indonesia, national activities are focused on improving the management of the Southeast Aru (*Kepulauan Aru Tenggara*) MPA and designating the 555,000 ha Palau Kolepon MPA currently being developed by the Province of Papua to become a national MPA. The area of mangrove forest to be under enhanced protection is approximately 220,000 ha. This expansion will contribute towards the commitment made by the Indonesian Government for 20 million ha under MPAs by 2020. This work will help the government improve marine management and address their highest conservation priorities, as identified in the Coral Triangle Initiative Plan of Action[75] and Indonesian Law 27/2007 on Coastal Zone and Small Islands Management.

Timor-Leste:

169. National activities in Timor-Leste will focus on extending the MPA Network for the Lessor Sunda Seascape to include an approximate 90,000 ha new MPA in Betano to Clacuc (Klakuk) in Município Manufahi, extending along 40 km coastline and out to 12 nautical miles.

[75] The Coral Triangle Initiative (CTI) Plan of Action includes six overarching goals for the entire region, including the designation and effective management of 'priority seascapes' such as the Lesser Sunda Ecoregion.

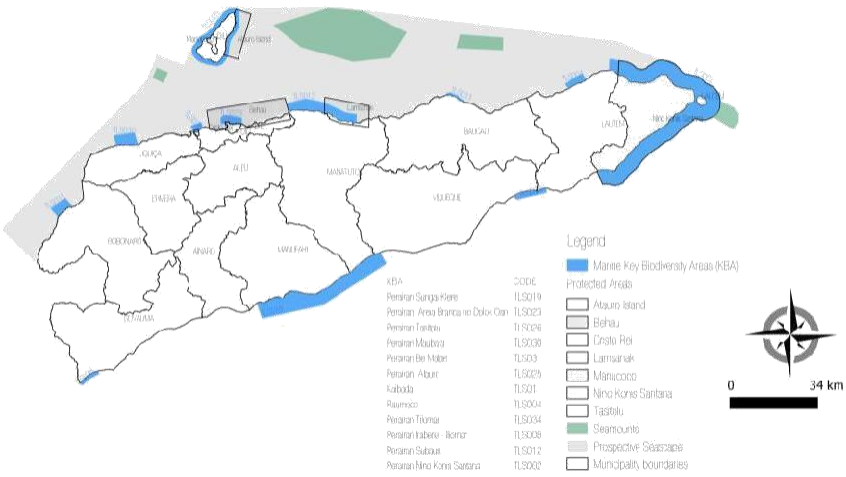

Figure 6: Seascape discussed with Timor-Leste Government

170. This area has been identified as a key biodiversity area under the Lessor Sunda seascape program, but is yet to be surveyed. Activities will also strengthen the capacity of communities in NKS NP to establish or strengthen existing LMMAs.

Activities for Output 2.3.2

<u>Regional</u>:

2.3.2-1. Prepare a detailed work plan for the activities under this output, through consultations with relevant regional and national ATS stakeholders, including members of the SPF and other existing expert and policy related forums.

2.3.2-2. Set goals and objectives, and design an ATS regional MPA network.

2.3.2-3. Following stakeholder consultations facilitate endorsement of the MPA network design by the ATS Regional Coordination Committee of the design.

2.3.2-4. Incorporate a "road map" for achieving the proposed ATS regional MPA network into an updated ATS SAP, which will obtain approval through ministerial declaration under Component 1 of this project.

<u>Indonesia</u>: Southeast Aru MPA (Maluku); Strengthening Management Effectiveness

2.3.2-5. Support the protected area management authority in updating and strengthening the management plan for the Southeast Aru MPA, with the aim of improving management effectiveness. The project will also facilitate the process of approving the management plan by the MMAF.

2.3.2-6. Develop an updated financial sustainability plan for the Southeast Aru MPA, based upon in-depth stakeholder consultations and a review of alternative financing options exploring use of Payments for Ecosystem Services (PES), community tourism models, and other mechanisms.

2.3.2-7. Organize a donor workshop, possibly in conjunction with the annual RCC/SPF meeting, with the purpose of securing financing from private sector, the donor community, or other interested stakeholders.

2.3.2-8. <u>Engage local communities.</u> Support implementation of the financial sustainability and updated management plan, with the focus on participatory integrated approaches engaging local communities, possibly the three villages nearest to the MPA (villages of Apara, Longgar, and Baimun). Tentative implementation activities include: (a)

alternative livelihood opportunities, e.g., fish and other marine resource processing within the buffer zone of the MPA, (b) community-led marine debris awareness and clean-up at Enu Island; (c) awareness building of traditional systems for MPA management; (d) and awareness building regarding oil spill preparedness and response.

2.3.2-9. Support the protected area management authority in preparing supporting documentation for upgrading the status of the MPA from the current green to blue, under the Indonesian management effectiveness scale.

<u>Indonesia</u>: Palau Kolepon MPA (Papua); Design and Support Designation of new MPA

2.3.2-10. Support the Protected Area Management Authority in the establishment of the legal framework, to a national level MPA by expanding the boundaries out to 12 nautical miles from the shoreline for the new MPA in Kolepon, ensuring alignment with EAFM approach for FMP 718 and ICM/marine spatial planning for Kolepon.

2.3.2-11. Sponsor capacity building for protected area management authority staff as well as provincial and district officials in MPA planning and management.

2.3.2-12. Support the gap analysis of baseline data and information (socio economic and environmental) and mapping.

2.3.2-13. Facilitate stakeholder consultations, carry out biophysical and socio-economic studies, zonation and mapping, and compile the documentation required to apply for designation of the proposed MPA.

2.3.2-14. Facilitate preparation, consultation, and endorsement of a draft management plan, building on the existing MPA being developed, and including extensive stakeholder consultation.

2.3.2-15. Develop a financial sustainability plan for the expanded Kolepon MPA, based upon in-depth stakeholder consultations and a review of alternative financing options exploring use of Payments for Ecosystem Services (PES), community tourism models, and other mechanisms.

2.3.2-16. Undertake a feasibility study for establishing ecotourism opportunities in Merauke, with a focus on the Kolepon MPA.

2.3.2-17. Organize a donor workshop, possibly in conjunction with the annual RCC/SPF meeting, with the purpose of securing financing from private sector, the donor community, or other interested stakeholders.

2.3.2-18. Support implementation of the financial sustainability and expanded management plans, with the focus on participatory integrated approaches engaging local communities.

<u>Timor-Leste</u>: Betano to Clacuc (Klakuk) MPA; Design and Support Designation

2.3.2-19. Carry out a scoping study for the proposed new MPA; the scoping study will identify recommended boundaries and conservation objectives and include gap analysis of baseline biophysical and socio-economic data and mapping. It is to be undertaken in consultation with the community and industry stakeholders.

2.3.2-20. Compile the gathered information and prepare the required documentation for applying for designation (IUCN category) and establishing the legal framework for the proposed MPA.

2.3.2-21. Support capacity building for marine protected area management staff as well as officials from the adjoining municipalities in MPA planning and management.

2.3.2-22. Facilitate validation and endorsement of a draft management plan for the proposed MPA, and including extensive stakeholder consultation.

2.3.2-23. Develop a financial sustainability plan for the proposed MPA, based upon in-depth stakeholder consultations and a review of alternative financing options exploring use of Payments for Ecosystem Services (PES), community tourism models, and other mechanisms.

2.3.2-24. Organize a donor workshop, possibly in conjunction with the annual RCC/SPF meeting, with the purpose of securing financing from private sector, the donor community, or other interested stakeholders.

Timor-Leste: Nino Konis Santana MPA; Strengthening Financial Sustainability

2.3.2-25. Support the MAF in updating and strengthening the management plan for the NKS MPA, with the aim of improving management effectiveness.

2.3.2-26. Develop an updated financial sustainability plan for the NKS MPA, based upon in-depth stakeholder consultations and a review of alternative financing options exploring use of Payments for Ecosystem Services (PES), community tourism models, and other mechanisms.

2.3.2-27. Organize a donor workshop, possibly in conjunction with the annual RCC/SPF meeting, with the purpose of securing financing from private sector, the donor community, or other interested stakeholders.

2.3.2-28. Locally Managed Marine Area. Support implementation of the financial sustainability and updated management plans, with the focus on participatory integrated approaches engaging local communities. Potential implementation activity include building the capacity of local communities to strengthen existing LMMAs, e.g., seagrass, dugong and turtle monitoring programmes, ecotourism ventures, or mangrove watch, etc.

Output 2.3.3 Endangered marine turtles protected through an agreed regional action plan

171. Activities under Output 2.3.3 are designed to improve regional collaboration and management in the ATS for marine turtles. The focus is on strengthening coordination and capacity across the region, as well as within governments and communities engaged in turtle conservation. At the regional level, activities will focus on improving coordination and management through the development and implementation of an ATS regional action plan for the management and conservation of marine turtles. At its center will be a focus on promoting development of a regional MPA network that would provide improved conservation of these species, along with activities that address transboundary issues relating to illegal trade, etc. In Timor-Leste and Indonesia, activities will provide opportunities for economic empowerment, engaging women in the establishment of tourism opportunities centered on the conservation and management of these species as well as seek to reduce fisheries impacts through bycatch and illegal harvesting of marine turtles. In addition, for Timor-Leste activities will also include developing a crocodile management plan to manage the increasing safety risks posed by crocodiles, particularly on the south coast.

Activities for Output 2.3.3

Regional:

2.3.3-1. Prepare a detailed work plan for the activities under this output, through consultations with relevant regional and national ATS stakeholders, including members of the SPF and other existing expert and policy related forums.

2.3.3-2. Develop a regional action plan for enhanced protection of marine turtles.

2.3.3-3. Facilitate endorsement of the regional action plan by the RCC.

2.3.3-4. Cross Project exchange visits – within and between countries. Exchange visits with other projects and programs addressing fisheries impacts on seagrass habitats or marine megafauna (bycatch, direct take, etc.); seagrass research and monitoring, eco-tourism etc.

Indonesia:

2.3.3-5. Implementation of the Regional Action Plan through undertaking national activities funded by each country, as identified in national turtle recovery plans.

2.3.3-6. Feasibility study to explore alternate livelihood tourism opportunities for communities in Aru Islands, Rote, and Merauke and possibly other sites based around turtles.

2.3.3-7. Pilot project in Indonesia for establishing tourism opportunities subject to outcomes from Feasibility study. This project will focus on reducing direct illegal harvesting of marine turtles, marine turtle eggs and dugongs. Partner with projects under way to reduce bycatch of turtles. In collaboration with the EAFM efforts under Outcome 2.1, activities will include support for trials of bycatch reduction devices, capacity and awareness building with fishers and improving regulations and compliance.

Timor-Leste:

2.3.3-8. Establish a pilot project to improve community based turtle conservation and ecotourism opportunities established in Com, NKS National Park, working with existing women's groups. This would include a feasibility study as an initial step and will focus on addressing reducing direct illegal harvesting of turtles and dugongs through capacity and awareness building with local communities in NKS using Com as a case study.

2.3.3-9. Reduce the bycatch of turtles by working with the fishing industry. Activities will include support for trials of bycatch reduction devices, capacity and awareness building with fishers and improving regulations and compliance.

2.3.3-10. Support the development and implementation of a crocodile management plan for Timor-Leste, focused on addressing the threats to community posed by crocodiles, particularly on the south coast and raising awareness with local communities.

OUTCOME 2.4: INTEGRAED COASTAL MANAGEMENT, INCORPORATING CLIMATE CHANGE ADAPTATION CONSIDERATIONS, IMPLEMENTED AT THE LOCAL LEVEL TOWARDS MORE SUSTAINABLE USE AND CONSERVATION OF ECOSYSTEM GOODS AND SERVICES

172. Outcome 2.4 focuses on developing and implementing integrated coastal management (ICM) plans for one site in Indonesia, the south coast of Kabupaten Rote Ndao, NTT Province; and strengthening and implementing the ICM plan currently under development with support by PEMSEA in Município Manatuto, specifically for the Barique Posto Administrativo, which borders the Timor Sea. The combined area under ICM is approximately 125 km, and includes roughly 1,000 ha of mangrove, 15,000 ha of coral reef, and 1,000 ha of sea grass ecosystems[76].

173. Coastal fisheries are important with respect to socio-economic development among most coastal communities across the ATS region, and ICM (see **Box 5**) provides local planners, developers, and other beneficiaries with a framework for more sensible development and conservation of local coastal and marine resources, which will result in sustainable use and management of ecosystem goods and services.

[76] The estimates of mangrove, coral reef, and sea grass ecosystems in Rote Ndao represent approximately 50% of the total for the district, as the north and northeast coasts of Rote Ndao do not border the Timor Sea. Surveys have not yet been made of the coastal area in Barique Sub-District, Timor-Leste. And, the length of coast line to be under integrated coastal management is a rough estimate.

174. The ICM planning activities will be complemented with climate change vulnerability assessments, in both Kabupaten Rote Ndao and Barique Posto Administrativo, so that management of coastal zone areas reflects potential impacts of climate change and to ensure that response measures are not maladatpative. In other words, local funding should be based on supporting initiatives that result in reducing vulnerability of socio-ecological systems to the impacts of climate change over the long term. Pilot implementation of climate change adaptation interventions are also included under this outcome, at both of the ICM sites.

Box 5: Definition of Integrated Coastal Management (ICM)

Integration and coordination of various coastal and marine management efforts is the major objective of the integrated coastal management (ICM) approach. **ICM addresses the governance of human activities affecting the sustainable use of goods and services generated by coastal and marine ecosystems**. This approach overcomes the limitations of conventional sectoral management through the following:

- Facilitating better understanding of the uniqueness of the coastal resource system. Through an integrated management approach, ICM reminds the various stakeholders that diverse sectors are involved in ensuring coastal areas' sustainability, since their collective activities affect the overall ecosystem. In contrast, single-sector management often fails to consider the various impacts of multiple uses of coastal resources.
- Integrating ecological, social and economic information. This ensures that management strategies formulated under ICM are responsive to the multiple users and uses of coastal resource systems.
- Promoting interdisciplinary approaches and cooperation among users and beneficiaries to address complex development issues. Through coordination, coastal management efforts by various stakeholders are not duplicated or conflicting, ensuring a more efficient and effective management system.

The Benefits of ICM:

Over the past 20 years, ICM has been applied in dozens of sites across East Asia, covering more than 31,000 km of coastline and benefitting tens of millions of people living in coastal and watershed areas.

ICM helps local governments to achieve social and economic development targets in a number of areas—pollution reduction and waste management; food security and livelihood management; water use and supply management; habitat protection, restoration and management; and natural and man-made hazard prevention and management. In all cases, success has been achieved through an integrated approach.

Source: PEMSEA

Output 2.4.1 Integrated coastal management plans (ICM) that support SAP/NAP implementation through alternative livelihood generation, in particular for women, developed and implemented through formulation and enactment of local regulations

175. Activities under Output 2.4.1 are designed to develop and implement Integrated Coastal Management (ICM) plans that integrate SAP/NAP priorities, biodiversity and climate change adaptation concerns in line with recommendations in the NBSAPs and in conjunction with EAFM, through formulation and enactment of local regulations.

176. In Indonesia, ICM activities underway in Kabupaten Rote Ndao are the most advanced for the ATS. Over the last few years the focus has been on marine spatial planning, coordinated by BAPPEDA. Under ATSEA-1 there was a memorandum of understanding between the NTT provincial government and TNC from which a zoning plan was developed. The zoning plan was finalized in late 2015 under a Provincial Governor’s Decree that is focused on integrating marine, land use (district planning) and conservation (including MPAs) spatial planning. The zoning plan is yet to be implemented. The ICM process to integrate land use planning with the marine spatial planning process, and a pilot project for the south-southwest coast of Rote Ndao (see **Figure 7**), which borders the Timor Sea, will be implemented under that decree.

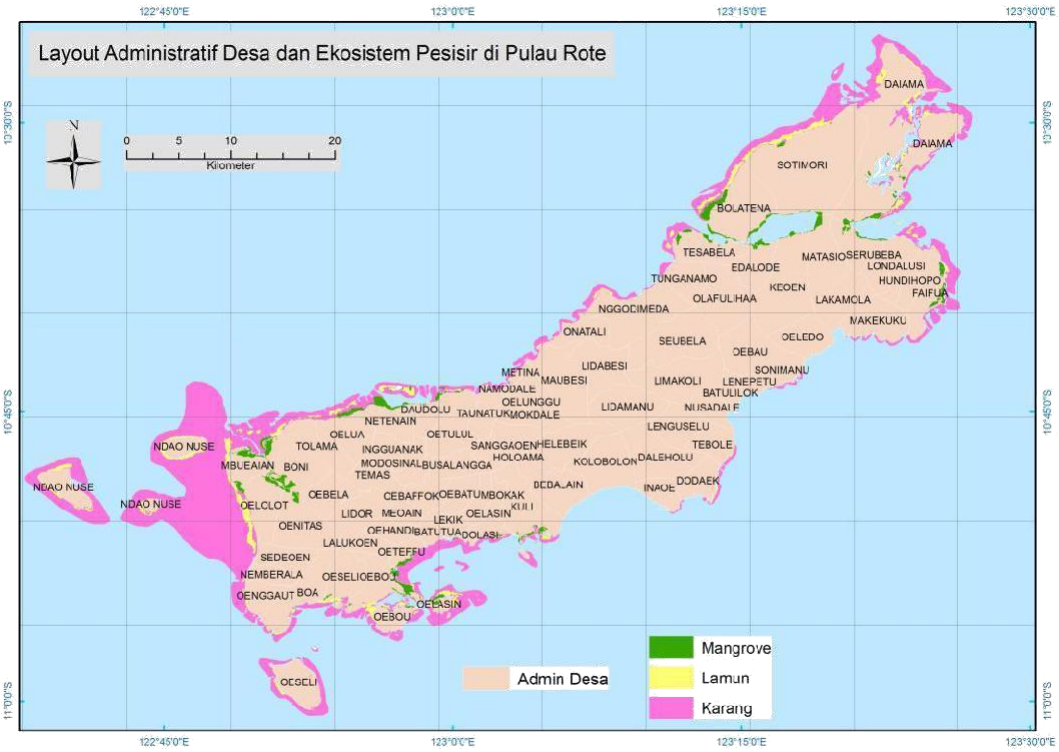

Figure 7: Map of Rote Ndao[77]

177. The project will strengthen the existing cross-sectoral coordinating committee in Rote Ndao appointed to develop an ICM Policy Framework. Extensive stakeholder consultation, including facilitating participation by the private sector, e.g., through corporate social responsibility (CSR) contributions will also be undertaken. The project will proactively facilitate participation of women and vulnerable stakeholder groups in the ICM planning and implementation processes.

178. In Timor-Leste, ICM activities will be undertaken with the support of PEMSEA, which is currently managing an ICM project in Município Manatuto. The ATSEA-2 project would work in partnership with PEMSEA, focusing on providing support where required, particularly for the Barique Posto Administrativo which is along the south coast of the município. The value that ATSEA-2 will bring to the PEMSEA project includes addressing sustainable fishery management in the ICM plans and also climate change adaptation (see Outputs 2.4.2 and 2.4.3 below).

179. Women will be involved in ICM planning and decision-making and the differences between labor and employment, knowledge, needs, and priorities of men and women in fisheries and coastal management will be recognized and incorporated in ICM plans. Specific activities proposed for women under this Objective include: (1) business and financial management training for women-run home-based small business activities; (2) improved access to the market for seaweed farmers, for women-run seaweed growing and/or processing enterprises; (3) contribution towards government-run Technical training for maintenance and repair of the solar-powered water desalination units in Rote Ndao; (4) support implementing a pilot project in Timor-Leste, following a feasibility study completed by Worldfish, regarding local production and/or sourcing of affordable fish feed for the aquaculture sector; (5) support establishment of a women's cooperative for selling locally sourced fish in Timor-Leste; and (6) facilitating drought-resilient home gardens for households in vulnerable coastal communities in Timor-Leste, in order to increase household food security and to allow the generation of cash from activities that do not harm mangroves.

[77] Map source: TNC; *Lamun*: sea grass; *Karang*: coral reef

Activities for Output 2.4.1

Indonesia: Kabupaten Rote Ndao, NTT Province

2.4.1-1. Prepare a detailed work plan for the activities under this output, through consultations with relevant stakeholders, including members of the SPF and other existing expert and policy related forums, such as the existing Rote Ndao cross-sectoral committee.

2.4.1-2. Undertake a gap analysis to understand what baseline assessment information exists and undertake a study to integrate the management of coastal management in marine spatial planning. This will complement the existing Marine Spatial Planning zoning map prepared by TNC under the "Planning for Sustainable Use: Developing coastal and marine spatial plan to inform investment plan and sustainable use of marine resources that benefits people and biodiversity in south coast area of Rote Ndao.

2.4.1-3. Carry out a climate change vulnerability assessment for the target areas within Kabupaten Rote Ndao. This could include downscaling information available in a province level vulnerability assessment sponsored by the Ministry of Environment and Forestry.

2.4.1-4. Preparation and adoption of an integrated management plan for the south coast of Rote Ndao. The project will work with provincial and district officials to identify a cluster of villages/communities or implementation of the pilot ICM activities.

2.4.1-5. Improved Access to the Market for Women-Run Seaweed Growing and/or Processing Enterprises. Establishing and strengthening alternative resilient livelihoods.

2.4.1-6. Business and Financial Management Training for Women-Run Home-Based Small Business Activities. Establishing and strengthening alternative resilient livelihoods.

Timor-Leste: Manatuto Municipality, in collaboration with PEMSEA

2.4.1-7. In collaboration with PEMSEA and through stakeholder engagement, support detailed baseline assessments in the Barique Posto Administrativo in line with the focus aspects for the ATSEA project, including for climate change adaptation, sustainable fishery, and pollution management, with particular focus on at risk households in coastal communities in the Barique Posto Administrativo.

2.4.1-8. Carry out a climate change vulnerability assessment for the target areas within Barique Posto Administrativo.

2.4.1-9. Prepare a coastal strategy (ICM Plan) plan for the focus aspects in Barique Posto Administrativo.

2.4.1-10. Support stakeholder awareness/engagement and related capacity building activities in the posto administrativo.

2.4.1-11. Support piloting the implementation of the outcomes from the Worldfish feasibility study into local production and/or sourcing of affordable fish feed for the aquaculture sector.

2.4.1-12. Support the establishment of a women led cooperative for the sale of local fish. This will include training in fish handling, value adding and sourcing and business and financial management skills.

Output 2.4.2 Climate change adaptation incorporated in ICM plans and demonstrations implemented for one at-risk coastal site in Timor-Leste

180. The degree to which a society is vulnerable to climate change is a function of three factors: (1) **exposure -** the ways in which climate changes and the speed of those changes, such as increasing rate of sea level rise, rainfall pattern shift, drought, erosion, seawater inundation, acidification,

etc.; (2) **sensitivity** - the extent to which the welfare of people depends on climate sensitive systems and the consequences on human, capital, societal and natural assets; and (3) **adaptive capacity** of the society to adapt to climate-induced changes in terms of societal, human, institutional, economic and natural aspects to cope with and adapt to the impacts of climate change[78]. As documented in the ATS transboundary diagnostic analysis (TDA) completed in 2012, coastal and marine ecosystems and communities in the ATS are vulnerable to climate change. To sustain these ecosystems and communities in the midst of the increasing impacts of climate change, climate change adaptation whether through ecosystem based adaptation or man-made solutions in coastal areas and with coastal communities is important to integrate in to coastal management.

181. Activities under Output 2.4.2 are designed to incorporate CCA activities into the Manatuto Municipality ICM plan and also the sub-plan for the Barique Sub-District. Activities have been designed to ensure lessons learned and priorities identified in the UNDP-LDCF projects **"**Strengthening Community Resilience to Climate-induced disasters in the Dili Ainaro Road Development Corridor, Timor-Leste**"** and **"**Strengthening the Resilience of Small Scale Rural Infrastructure and Local Government Systems to Climatic Variability and Risk**"** are considered for CCA activities in the Barique Posto Administrativo.

182. As part of the PEMSEA-led ICM development process, baseline assessments and risk/vulnerability assessments are conducted in the ICM sites, considering physical, ecological and socioeconomic conditions, and past and potential impacts of natural and anthropogenic hazards and climate change. These serve as inputs in developing coastal strategies and implementation plans for the sites that incorporate climate change considerations. Participatory approaches and tools are applied considering available data and capacity/expertise. Local task teams/technical working groups are trained to undertake the assessments with the support of technical specialists. The assessment under this output will also include an evaluation of the impacts of *El Niño* events on local communities in this part of Timor-Leste.

Activities for Output 2.4.2

<u>Timor-Leste</u>: Município Manatuto

2.4.2-1. Through stakeholder consultation and using the results from activities completed under Output 2.4.1, identify climate change adaptation options and key priorities, and support the município in integrating these into the ICM plan. It will also include an *El Niño* impact assessment.

2.4.2-2. Drought-resilient home gardens will be implemented in households located within vulnerable coastal communities in order to increase household food security and also to allow the generation of cash from activities that do not harm mangroves. This will be undertaken with existing partners.

2.4.2-3. Implement good practices for mangrove restoration and riverbank stabilization works together with local communities in Barique Posto Administrativo, and incorporating key lessons and outcomes from other relevant projects.

Output 2.4.3 Climate Change adaptation, with a particular focus on ecosystem-based adaptation, incorporated in ICM plans and demonstrations implemented for two at-risk coastal sites in Indonesia

183. Activities under Output 2.4.3 are designed to ensure ecosystem-based adaptation (EbA – see **Box 6**) is built into ICM activities. The focus is on improving the conservation, sustainable

[78] U.S. Agency for International Development. 2009. Adapting to Coastal Climate Change: A Guidebook for Development Planners, USAID, Washington, D.C., 162 pp.

management and restoration of natural ecosystems to help vulnerable communities adapt to climate change. Activities will include understanding "at risk villages" in Kabupaten Rote Ndao, building capacity and knowledge sharing for innovative approaches, and piloting projects at two selected sites that promote good practices and raise awareness on the importance of coastal ecosystems and biodiversity in strengthening resilience to climate change.

Box 6: Definitions and Draft Principles of Ecosystem-based Adaptation (EbA)

CBD definition: "the use of biodiversity and ecosystem services to help people adapt to the adverse effects of climate change"

UNEP definition: "the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people and communities adapt to the negative effects of climate change at local, national, regional and global levels"

GEF & IUCN definition: 'the use of the biodiversity as part of the overall adaptation strategy to help people adapt to adverse impacts of climate change"

Draft Principles for Ecosystem-based Approaches to Adaptation EbA[79]:

1. Promotes multi-sectoral approaches.
2. Operates at multiple geographical scales.
3. Integrates flexible management structures that enable adaptive management.
4. Minimises trade-offs and maximizes synergies with development and conservation goals to avoid unintended negative social and environmental impacts.
5. Incorporates best available science and local knowledge, and fosters knowledge generation and diffusion.
6. Promotes resilient ecosystems and nature based solutions to provide benefits to people, especially the most vulnerable.
7. Is participatory, transparent, accountable, and culturally appropriate, while actively embracing equity and gender issues.

Activities for Output 2.4.3

Indonesia: Kabupaten Rote Ndao, NTT Province

2.4.2-1. Develop EbA key priorities and activities, and support local government unit stakeholders in integrating these activities into the ICM plan.

2.4.2-2. Capacity building of scientists and policymakers in ecosystem based approach to adaptation. This will include knowledge exchange of good practices and experience in ecosystem-based adaptation at technical and policy levels.

2.4.2-3. EbA measures implemented in select communities in Kabupaten Rote Ndao, including implementing good practices for mangrove and other coastal vegetation restoration together with local communities.

2.1.4-4. Technical Training for Maintenance and Repair of the Solar-powered Water Desalination Units. Establishing alternative resilient livelihoods and strengthening climate change adaptive capacity within the larger aim of integrated coastal management for healthy communities.

Component 3: Knowledge management

184. The objective of this component is to support replication and scaling up of experiences and best practices generated by the project and the implementation of the SAP and NAPs. This will be achieved through improved monitoring of the status of the ATS and dissemination of knowledge gained.

[79] Making the Case for Ecosystem-based Adaptation, (UNEP, UNDP, IUCN, sponsored by German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety)

185. Dissemination of information and best practices will be realized through formulation and implementation of a communications strategy including, but not limited to, an enhanced ATSEA project website, bulletins, publications and videos in English and national languages, and contributions to IW:LEARN, equivalent to 1% of the IW grant. Making information accessible to local communities would contribute to their empowerment that would lead to meaningful participation in national and local planning and implementation processes. The communication strategy will include a regional information system that will address the long-term needs in the management of the ATS region. The communication strategy will be maintained by the ATS Secretariat and its implementation will be overseen by the Regional Coordination Committee.

OUTCOME 3.1: IMPROVED MONITORING OF THE STATUS OF THE ATS AND DISSEMINATION OF INFORMATION

186. Outcome 3.1 involves establishing an ATS SAP monitoring system applying holistic and SMART (Specific, Measurable, Achievable, Relevant, Time-bound) indicators, using the GEF Process, Stress Reduction and Environmental/Socioeconomic Status framework, to monitor ocean health in the context of climate change, and indicators used for SAP/NAP progress evaluation and priority setting. The SAP has already identified preliminary indicators for monitoring of process, stress reduction and status of the ATS, and these indicators will be further refined during the project, to strengthen the integration of biodiversity concerns into the monitoring of the implementation of the SAP. The project will also support the establishment of a regional monitoring mechanism as part of strengthening of regional governance under Component 1.

Output 3.1.1 A set of holistic (SMART) indicators established by applying the GEF Process, Stress Reduction and Environmental/Socioeconomic Status framework to monitor ocean health, SAP and NAP implementation; indicators used for progress evaluation, SAP and TDA updating and priority setting

187. Activities under Output 3.1.1 include establishing the ATS SAP monitoring system, with an accompanying reporting procedure. A regional workshop will be organized to train practitioners on the use of the monitoring and reporting tools. And, the project will support preparation of annual SAP implementation progress reports, applying the monitoring system, which will be the basis for future performance reporting. In addition to adapting the GEF Process, Stress Reduction, and Environmental/Socioeconomic Status framework, existing regional and monitoring systems will be assessed and relevant components incorporated into the ATS system as appropriate.

Activities for Output 3.1.1

Regional:

3.1.1-1. Establish mechanisms and indicators in place to monitor the process, stress reduction measures, and environmental and socio economic status of the ATS ecosystem.

3.1.1-2. Organize a regional workshop, in conjunction with the annual RCC/SPF meetings, on application of the ATS SAP monitoring and reporting system.

3.1.1-3. Prepare annual progress reports of the implementation of the SAP, applying the developed monitoring and reporting system.

Output 3.1.2 Improved dissemination of information and best practices through formulation and implementation of a communications strategy, including but not limited to an enhanced ATSEA project website, bulletins, publications and videos in English and national languages, and contributions to IW:LEARN activities allocating 1% of project grant

188. Knowledge management is about packaging the knowledge and understanding generated within the project to ensure that program information is disseminated to the most relevant audiences such as the policy makers, advisory bodies, conservation groups, industry and the communities. The effective transfer of knowledge, where people are stimulated to think or act differently, is vital in order to inform and influence decision-making and policy development. Effective knowledge transfer should influence the debate and action on issues relevant to the impacts of climate and anthropogenic drivers on coastal and marine ecosystems in ATS region.

189. A Communications Strategy (**Annex D**) has been developed in order to facilitate this process and bridge the gap between ATSEA-2 implementation teams that produce knowledge and understanding, and the end-users that are in a position to provide a pathway for the successful adoption. This overarching ATSEA-2 Communication Strategy addresses the following elements of program delivery:

    a. Identification of mechanisms and processes for ensuring end-user engagement in the program, and understanding end-user needs and priorities;
    b. Development of synthesis and analysis products targeted at end-user needs;
    c. Facilitation of co-learning between the ATSEA-2 RPMU and key end-users;
    d. Establishment of a plan to ensure the ongoing availability of project outputs beyond the life of the project for end-users;
    e. Provision and/or support of mechanisms to bring RPMU, policy makers and other relevant stakeholders together to facilitate evidence-based decision-making; and
    f. Promotion of the ATSEA-2 outputs to end-users, particularly in the coastal communities.

190. These elements require the combination and integration of new knowledge from multiple disciplines, particularly the fusion of social, economic, and biophysical sciences. They also require knowledge sharing among a diverse range of interest groups (e.g. government, end-users, industry, NGOs, communities). The structure of ATSEA-2 provides a coordinating mechanism in the form of the Regional Coordination Committee (RCC) and the Stakeholder Partnership Forum (SPF), which will build capability in the region by providing opportunities for collaborative multi-disciplinary networks between the program, the managers and broader stakeholders. These networks enhance the capacity for future projects and activities to lead directly to improved environmental outcomes, which has been proven to be particularly successful if end-users are engaged throughout the process from the early stages of problem definition to the delivery and application of program findings into decision-making and implementation processes.

Activities for Output 3.1.2

Understand end-user information needs:

191. Understanding the needs of user groups is essential to a successful program agenda and the effective transfer of knowledge. Through an extensive engagement framework, broad end-user specific needs and interests will be recorded, allowing for focused implementation of actions and targeted dissemination of knowledge based on end-user requirements. Specific tools and products will be developed to meet the needs of different user groups, including the use of a variety of media. Regular feedback between the Regional Project Management Unit (RPMU) and end-users will allow for the evolution of understanding of end-user needs and appropriate delivery to policy and decision-making.

192. Implementation Tools: nurture a participatory project agenda setting environment, encourage community engagement in the project, adaptive feedback to stakeholders, continuous updating of contacts database, policy briefings, RCC/SPF input.

Activity Description

3.1.2-1. Develop a Stakeholder Engagement and Communications Plan based on the existing Strategies (more information on Stakeholder Engagement can be found in Part IV of the project document)

3.1.2-2. Maintain and regularly update the Stakeholder Engagement and Communications Plan

3.1.2-3. Communicate Project Findings at Annual RCC and SPF Meetings

- Knowledge generated each year will be packaged into useful products to communicate findings and discuss strategic direction of ATSEA-2 at each year's RCC and SPF meetings.
- Prepare and present specific briefings for outputs and outcomes/impacts.
- Collaboratively develop program priorities and Program Plan with the RCC.

3.1.2-4. Workshops, meetings and networking events

- Organize or facilitate targeted workshops, meetings and networking events in coordination with the annual SPF meeting that will communicate and promote specific project outputs.
- Ensure that such events target relevant audiences, as per Stakeholder Engagement Plan, cater for end-user needs, and address identified engagement milestones and deliverables.

Provide information:

193. ATSEA-2 will provide solution-based, actionable information to target user groups to inform decision-making. The project will facilitate the provision of ATSEA-2 outputs to influence decision-making and program development in the area of coastal and marine ecosystems management in the ATS region. In order to successfully bridge the gap between ATSEA-2 program and policy, outputs will be translated into clear and concise products that transform knowledge into formats accessible to decision-makers at all levels, including a variety of media.

194. Implementation Tools: production of fact and information sheets, contacts database, information briefings, face-to-face stakeholder workshops, media releases, networking events, workshops, regional exchanges, and conferences.

Activity Description

3.1.2-5. Contacts database / "Community of practice"

- Build on previous networks (under ATSEA1 and the PPG stage) to develop a contacts database for ATSEA-2, a virtual "community of practice" for the practitioners and government officials with an interest in ATSEA and regional biodiversity and conservation
- Check the database with end-users and make it available for their access
- Maintain and update contacts database 6-monthly

3.1.2-6 Information Sheets / Infographics / Press releases

- Develop information sheets/Infographics for each output/activity in English, Bahasa and Tetun as appropriate
- Publish Information sheets/ Infographics developed for each output/ activity on the website, social media and in the newsletter
- Work with the participating governments to draft media releases based on the information sheets/Infographics, reporting on topical and novel findings in local language

3.1.2-7. Regional Exchange activities

- In coordination with the annual meetings of the RCC and SPF where possible, ATSEA-2 will organize and deliver regional exchange activities planned under various project Outputs, including (but not limited to):
  - Climate Change Knowledge Workshop (Outcome 1.3)
  - EAFM Training (Outcome 2.1)
  - Monitoring Control Surveillance (MCS) Training (Outcome 2.1)
  - Pollution Hotspot Workshop (Outcome 2.2)
  - Oil Spill Response Training (Outcome 2.2)
  - MPA Network Workshop (Outcome 2.3)
  - Megafauna Action Plan Workshop (Outcome 2.3)
  - Megafauna Action Plan, Cross Project Exchange (Outcome 2.3)
  - Training on SAP monitoring and reporting system (Outcome 3.1)

Deliver messages:

195. ATSEA-2 will deliver messages in a cost-effective, concise way that utilizes a range of appropriate methods. Various communication outputs produced by the program will be communicated using a range of delivery modes, tailored appropriately to meet the varying needs of end-user groups.

196. Implementation Tools: dedicated interactive website, social media, general interest media, fact and information sheets, personal communication, targeted workshops and conferences, face-to-face meetings, shed meetings, networking events.

Activity Description

3.1.2-8. ATSEA-2 website

- Within first 6 months of the project, launch ATSEA-2 website in English, Bahasa and Tetun – building on the base of the existing ATSEA website and ensuring an efficient system to build a database of relevant knowledge products relevant to ATS management
- Update website and add new information and/or project publications as it is available, at least quarterly, throughout the project
- Inform project contact list/community of practice of website updates via the newsletter

3.1.2-9 Social media presence

- Within first 6 months of the project, establish ATSEA-2 social media presence in English, and possibly in local languages, including Bahasa, Tetun, Tok Pisin
- Maintain ATSEA-2 social media presence throughout the project, ensuring postings are updated at least weekly
- Support discussions and exchanges between program 'community of practice' participants

3.1.2-10 e-Newsletter

- Prepare quarterly e-newsletters in consultation with the UNDP, in English, Bahasa, and Tetun
- Circulate e-Newsletter to all contacts/ community of practice members

3.1.2-11 IW:LEARN

- ATSEA-2 will keep abreast of IW:LEARN, posting project newsletter stories, publications and other media to IW:LEARN while linking any useful IW:LEARN postings to the ATSEA-2 website/E-newsletter for the edification of the wider stakeholder community

- Participation in relevant IW:LEARN meetings and activities

3.1.2-12 Participation at meetings and forums

- Participate in CTI, GEF and other international and regional meetings and forums, as required, to present the ATSEA-2 progress and key findings.

PROJECT INDICATORS

197. The project indicators contained in Section II/Part II (Strategic Results Framework) include impact (or 'objective') indicators and outcome (or 'performance') indicators. They are all 'SMART'[80]. The project may however need to develop and/or refine a certain number of process-oriented indicators to support ongoing site-based M&E and SOC reporting processes.

198. In turn, the choice of indicators is based on two key criteria: (a) their pertinence to the above assumption; and (b) the feasibility of obtaining/producing and updating the data necessary to monitor and evaluate the project through those indicators The project's key indicators are described below in **Table 5**:

Table 5: Elaboration on Project Indicators

Indicator	End of Project Target	Explanatory Note
At objective level		
1. Number of women and men as direct beneficiaries of project activities	Cumulative total of direct beneficiaries: 55,000 women 60,000 men	Consistent with GEF corporate gender indicators
2. Globally over-exploited fisheries (by volume) moved to more sustainable levels	0.Up to 25% (by volume) for the ATS region, representing approximately 0.25% of global levels	Consistent with GEF-6 corporate International Waters (IW) indicator
3. Landscapes and seascapes under improved biodiversity management	800,000 ha	Consistent with GEF-6 biodiversity (BD) indicator
At outcome level		
4. Regional governance mechanism	Regional governance mechanism established and functioning with at least 2 of 4 countries contributing dues	Consistent with GEF-6 IW process indicator
5. National Inter-Ministerial Committees (NIMCs)	NIMCs established, functioning and formalized thru legal and/or institutional arrangements in each of the three beneficiary countries	Consistent with GEF-6 IW process indicator
6. SAP implementation finance secured by governments and development partners	25%	Consistent with GEF-6 IW process indicator
7. Number of local regulations issued to support implementation of NAP that reflect regional harmonization of national and subnational policies	Indonesia : Draft of three local regulations (PERDA) developed and submitted to the provincial government to support implementation of NAP Timor-Leste: Two local regulations issued to support implementation of NAP Papua New Guinea: District Sustainable Marine Resource Plan for South Fly District approved	Consistent with GEF-6 IW process indicator
8. Knowledge transferred from capacitated trainers to resource beneficiaries	Indonesia : 100 resource beneficiaries receive training on integrated approaches from the capacitated trainers	Training of change agents will be key in terms of sustainability of project results

[80] Specific, Measurable, Achievable, Relevant and Time-bound.

Indicator	End of Project Target	Explanatory Note
	Timor-Leste: 60 resource beneficiaries receive training on integrated approaches from the capacitated trainers Papua New Guinea: 10 resource beneficiaries receive training on integrated approaches from the capacitated trainers	
9. Regional climate change predictive capacity strengthened	ATS regional CC guidance toolkit endorsed by RCC	Cross cutting across both focal areas
10. Proportion of countries that are implementing specific measures from the SAP (i.e. adopted national policies, laws, budgeted plans)	Indonesia: Priority actions under ATS NAP mainstreamed into national development programs and budgets Timor-Leste: Priority actions under ATS NAP mainstreamed into national development programs and budgets Papua New Guinea: Priority actions under ATS NAP mainstreamed into national development programs and budgets	Consistent with GEF-6 IW process indicator
11. Number of management plans and appropriate measures implemented for rebuilding or protecting fish stocks including alternative management approaches	5	Consistent with GEF-6 IW Outcome 7.1
12. Number of targeted communities of fishers have adopted an ecosystem approach to fisheries management	5	Consistent with GEF-6 IW Outcome 7.1
13. Reduced fishing effort	Aru, Indonesia: 25% reduction I fleet size within the shrimp and red snapper fisheries South Fly, PNG: reduction of 1 ton per year dried fish maw (bladder) produced.	Consistent with the stress reduction indicators including in the IW tracking tool
14. Improved use of fish gear/techniques	Aru, Indonesia: 50% of vessels within the shrimp and red snapper fisheries using improved gear; 50% vessels using VMS; 25% vessels applying improved gear to reduce turtle bycatch. Merauke, Indonesia: 50% barramundi fishers using improved gear. South Coast, Timor-Leste: 50% vessels within the mackerel fishery using improved gear/techniques. South Fly: PNG: 25% artisanal fishers using improved gear/techniques.	Consistent with the stress reduction indicators including in the IW tracking tool
15. Strengthened oil spill oil warning capacities	Oil spill early warning systems and procedures are included in the ICM plans of Rote Ndao in Indonesia and Município Manatuto in Timor-Leste	Consistent with Target 3.2 of the ATSEA SAP
16. Protected area management effectiveness score	Indonesia: Southeast Aru MPA METT: 92 Timor-Leste: NKS NP METT: 50	Consistent with GEF-6 BD tracking tool for BD-1, Program 2
17. Number of threatened species under enhanced protection	1 (marine turtles)	Consistent with GEF-6 BD Outcome 2.1
18. Adoption and implementation of ICM plans and reforms to protect coastal zones in LMEs – Number of beneficiary countries adopting and applying ICM within ATS region	2	Consistent with GEF-6 IW Outcome 6.1

Indicator	End of Project Target	Explanatory Note
19. Number of women and men supported with alternative likelihoods that contribute to improved management of natural resources and increased resilience of their local communities with respect to the impacts of climate change	Total: 1,500, including 850 women and 650 men	Cumulative tally of field interventions among project sites
20. Mechanism in place to produce a monitoring report on stress reduction measures	Monitoring mechanisms in place for some of the project related indicators	Consistent with GEF-6 IW stress reduction indicator
21. Dissemination of project results and ATS information	Participation in one GEF IW Conference; submission of at least one Results and one Experience Note; and integration of ATS knowledge management onto the existing CTI knowledge management platform	Consistent with GEF corporate indicator

STAKEHOLDER ANALYSIS AND ENGAGEMENT

199. Stakeholder inclusion and participation will be critical in ensuring successful implementation of the ATSEA SAP and NAPs. The SAP stipulates the inclusive participation of interested stakeholders beyond the government and scientific sectors represented in the original ATSEF. Based on experience from the first phase of ATSEA and existing networks in the region, a full array of stakeholders, including government agencies, representatives from civil society and non-government organizations (NGOs), and private sector groups are expected to participate in the project at the regional, national and subnational levels.

200. There was a strong engagement component throughout the processes to develop the PIF and the project document for ATSEA-2. A number of government and NGOs were visited or contacted and updated on the Project development during this time. Given the regional nature of the project, the stakeholder analysis was conducted on national levels (for Timor-Leste, Indonesia, and Papua New Guinea), providing recommendations for the regional level activities.

201. Government-related stakeholders will include:

    a. Regional level: regional intergovernmental organizations, and donor and financing agencies;

    b. National level: national ministries, departments and agencies covering natural resources and environment, agriculture, fisheries, health, education, transportation, energy, tourism, industry, foreign affairs, economic development, and finance;

    c. National and local law enforcement agencies (e.g., maritime police, coast guard, etc.); and

    d. Subnational level: village/township, municipalities, city, district and provincial governments and their respective national/central government counterparts.

202. In addition to the government related stakeholders, the GEF project will engage directly with:

    a. International and national non-government organizations (NGOs) working in specialized fields (e.g., sustainable fisheries, biodiversity conservation, alternative livelihoods, microfinance, ecotourism, women's issues, etc.) as well as those institutions active at the sub-national level in community organization and engagement;

    b. Representatives of local communities and coastal communities in the ATS region;

    c. Academic, research, scientific and technical institutions (e.g., universities, polytechnics, specialized training institutes);

d. Professional associations, scientific and technical societies;

e. Business support organizations (e.g., chambers of commerce, financial institutions, industry associations); and

f. Individual corporations (e.g., for CSR-related contributions).

203. In order to strengthen the involvement of all stakeholders in the implementation of the ATSEA SAP, a broader Stakeholder Partnership Forum (SPF) will be established, building upon the existing Arafura and Timor Seas Expert Forum (ATSEF). This expanded SPF - which could adopt the name **ATSEF+** to take advantage of the ATSEF name recognition while emphasizing the additional, more inclusive representation - will have a membership that includes the national government representatives and academic experts from the original forum, and additionally includes other national and sub-national government agencies as well as regional, national and sub-national civil society organizations, ensuring representation from particularly marginalized groups like local people women's groups. The SPF will hold annual meetings as a forum for exchange of ideas/information and evaluation of the implementation of the agreed program. In addition, to facilitate the communication among the stakeholders, a web-based information system accessible to all parties will be established. Special attention will be paid to engaging with local people and women's groups active at the project sites in Indonesia and Timor-Leste (see below) in implementation of demonstrations on sustainable fisheries management, ecosystem-based adaptation, integrated coastal management, alternative resilient livelihood development, etc.

204. In addition to the SPF, the GEF project will offer a range of mechanisms, forums, platforms, networks and opportunities for stakeholder engagement, inclusion and participation. These include, but are not limited to:

a. Ministerial Forums and Committees, and other special events/exhibitions;
b. National Project Boards;
c. Technical Working Groups;
d. Policy forums;
e. Expert/scientific advisory groups;
f. Collaborative/joint initiatives and sub-projects;
g. Regional and national task forces;
h. Corporate Social Responsibility Network; and
i. Other communities of practice.

Figure 8 below gives an overview of how these various platforms will be organized at the regional, national and subnational levels.

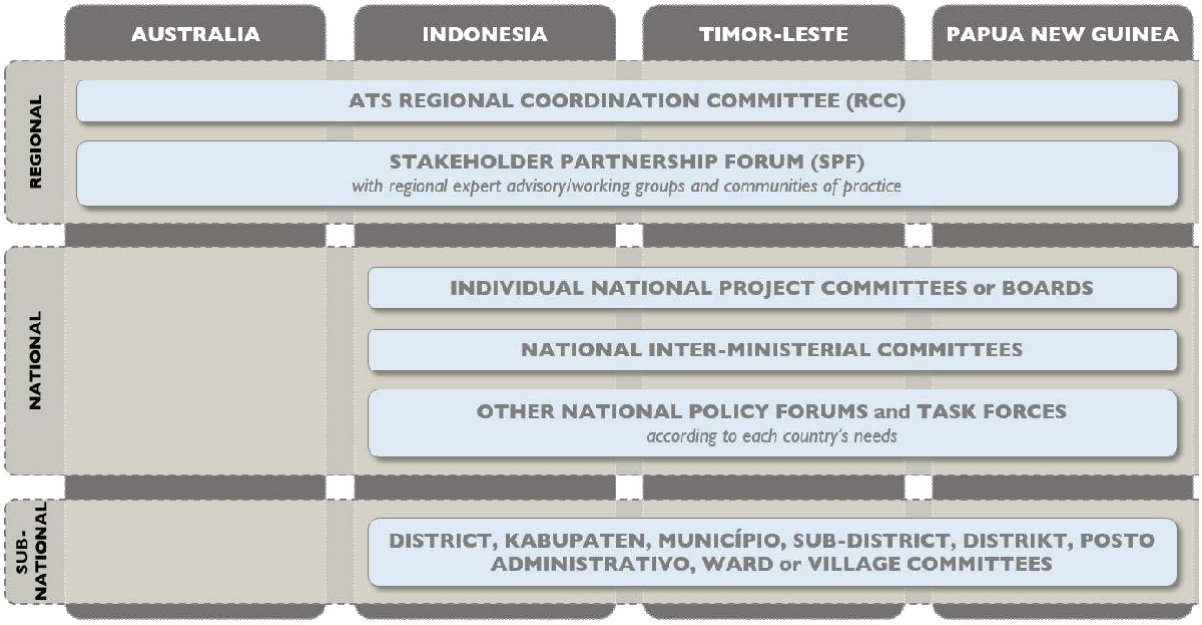

Figure 8: The distribution of stakeholder involvement platforms at regional, national, and sub-national levels

205. Stakeholder engagement and involvement will be a continuous process, as the project seeks to:

    a. Resolve/mitigate trans-boundary and resource use issues and conflicts;

    b. Overcome barriers and constraints to improve inter-agency and multi-sectoral collaboration and coordination;

    c. Develop and coordinate regional, national and local level initiatives;

    d. Formulate and implement national and local policies and laws related to ocean and coastal governance;

    e. Formulate and implement national policies and legislation in support of sustainable development of coastal and marine areas;

    f. Address specific sets of cross-cutting concerns and issues, e.g., gender, environmental, and social screening;

    g. Leverage partnerships and collaborative arrangements to implement integrated approaches such as EAFM and ICM;

    h. Ensure complementarities and mutual reinforcement of programs and projects with other funding agencies;

    i. Encourage and strengthen investments in ATS priority programs and projects, including fisheries management, habitat restoration and ecosystem-based adaptation, pollution reduction, waste management, etc.; and

    j. Promote sharing of knowledge and good practices in support of scaling up of EAFM, FIP, ICM, and EbA.

206. Stakeholder identification and analysis will remain dynamic and continue throughout the program cycle. As the project progresses from design to implementation and evaluation, additional stakeholders might be identified from the following groups:

    a. Users and beneficiaries of different components of this project and of different projects;

    b. People likely to be adversely affected directly or indirectly, in any way;

    c. Poor and vulnerable groups;

d. Different professional/occupational groups;
e. Other government agencies and government officials at regional/ local level;
f. Other donor agencies; and
g. Community based organizations and community leaders.

207. Section IV, Part IV of this document provides a more detailed presentation of proposed stakeholder involvement, including a description of the various mechanisms and platforms and **Annex E** presents supporting information on the stakeholder consultation processes, which have led to the PIF and the formulation of the project document.

RISKS AND ASSUMPTIONS

208. The project strategy, described in detail within this project document, makes the following key assumptions in proposing the GEF intervention:

a. Extrapolated baseline conditions are satisfactorily representative;

b. The time required to obtain enabling decisions in support of the project activities is reasonable and will not result in implementation delays;

c. Increased awareness and capacity will lead to a change in behavior among key stakeholders involved in coastal and marine resource management and conservation;

d. There is political and financing support for establishing and sustaining a regional governance mechanism for the ATS;

e. Key stakeholders, including resource beneficiaries, resource managers, local and central governments, and other interest groups, support the need for sustainable management of ATS ecosystems. They also possess basic capacity to develop and subsequently implement conservation measures and management plans;

f. Support at national and local levels to establish new MPAs;

g. Existing regulatory frameworks in the beneficiary ATS countries accommodate implementation of integrated approaches such as ICM, EAFM, and EbA.

h. The fishing community and other private sector actors are willing to participate in the project activities and appreciate the long-term benefits of more responsible resource use over short-term impacts.

i. Technological and market-based solutions that create economic incentives for applying integrated approaches are available and feasible to implement in project areas; and

j. MCS and other enforcement mechanisms are in place and/or cofinancing contributions are available, and are effective for data related regulations, e.g., VMS, log book, etc.

209. There are a number of risks associated with the assumptions made and according to various exogenous conditions. Identified project risks were assessed according to the guidelines outlined below in **Box 7**.

Box 7. Risk Assessment Guiding Matrix					
	Impact				
	CRITICAL	**HIGH**	**MEDIUM**	**LOW**	**NEGLIGIBLE**
CERTAIN/IMMINENT	**Critical**	**Critical**	**High**	**Medium**	**Low**
VERY LIKELY	**Critical**	**High**	**High**	**Medium**	**Low**
LIKELY	**High**	**High**	**Medium**	**Low**	**Negligible**
MODERATELY LIKELY	**Medium**	**Medium**	**Low**	**Low**	**Negligible**
UNLIKELY	**Low**	**Low**	**Negligible**	**Negligible**	Considered to pose no determinable risk

210. Risks were characterized according to the UNDP/GEF Risk Standard Categories[81], and mitigation measures are outlined below in **Table 6**.

Table 6: Project Risks Assessment and Mitigation Measures

Identified Risks	Impact	Likelihood	Risk Assessment	Mitigation Measures
Environmental Impacts of climate change in the ATS undermine the sustainability of marine and coastal management, by adversely impacting biological processes underpinning provisioning, regulating and supporting ecosystem services.	Medium	Moderately Likely (in the long term)	**Low**	The risks associated with predicted climate change impacts are complex and difficult to quantify. Substantive project funds are allocated toward increasing the knowledge base regarding the potential impacts of climate change on fish and other marine resources, and the associated consequences on local communities. The increased predictive capability resulting from these efforts will allow more informed strategies for strengthening the resilience of vulnerable communities.
Financial Financial sustainability of project activities is threatened by inadequate allocation of funding by governments.	High	Moderately Likely	**Medium**	The ratio of GEF funding to cofinancing is approximately 1:6, signifying a considerable level of commitment by governmental stakeholders. It is expected that during project implementation, additional cofinancing will be identified. It is noted that the project aims to ensure financial sustainability of the governance mechanism to be agreed on by the countries
Operational Performance of project activities is low due to inadequate coordination by national and site mobilizers.	High	Moderately Likely	**Medium**	National coordination units (NCUs) will be established in each of the 3 beneficiary countries, with each NCU reporting to a national project board and also with direct reporting line to the regional project manager. The NCU will include a full-time national coordinator in each country, and in Indonesia and Timor-Leste, site mobilizers will be hired to facilitate the implementation activities in the field.
Organizational Unclear mandates or conflicts among resource	High	Moderately Likely	**Medium**	The national inter-ministerial committees (NIMCs) in each of the 3 beneficiary countries will be tasked with facilitating

[81] Includes the following eight categories: environmental; financial; operational; organizational; political; regulatory; strategic; and other.

Identified Risks	Impact	Likelihood	Risk Assessment	Mitigation Measures
users, different sectors of governmental units, national and subnational stakeholders lead to delays in project implementation.				cross-sectoral collaboration. The Stakeholder Partnership Forum that will build on ATSEF is designed to facilitate broad stakeholder participation. In Indonesia, there will be additional coordination structures put in place, including a Governors Forum, to help bridge the fairly uncertain governance landscape between District and Provincial governmental units, as a result of Law 23/2014 on Regional Governance.
Organizational There is insufficient capacity to support management changes proposed by the project, e.g. with regard to institutional and administrative support, and MCS and enforcement.	Medium	Moderately Likely	**Low**	Capacity building is one of the primary focuses of the project, with the aim of training "change agents" in each of the 3 beneficiary countries on state of the art integrated approaches to natural resource management and biodiversity conservation. Local communities will also be engaged in sharing management responsibilities, including monitoring, control, and surveillance arrangements. Further areas for capacity building may be identified during project implementation.
Political Change in key policy and/or decision makers or other events beyond the control of the project lead to changes in policies and/or support for the project.	High	Moderately Likely	**Medium**	A 5-year long project will inevitably operate across national and subnational election cycles. The project is designed to facilitate national responses to agreed regional action programs, including the ATS NAP, RPoA-IUU, CTI-CFF, etc., which are long-term commitments that are mostly unaffected by changes in national or local governments.
Regulatory Enabling decisions required for implementation of some of the key project activities are delayed due to inefficiencies and/or lack of ownership by national and/or local government units.	High	Moderately Likely	**Medium**	A number of the planned project activities require high level enabling decisions, including ministerial declaration for new marine protected areas, DG level approval of fisheries improvement projects and EAFM plans, etc. The regional project manager and the national coordinators will be proactive in project advocacy, including regular communication with cross-sectoral coordination structures, such as the national inter-ministerial committees and the national project boards.
Strategic Littoral countries cannot reach agreement on regional governance mechanism and financing strategy.	High	Moderately Likely	**Medium**	Broad and inclusive stakeholder participation will be important in demonstrating the benefits of an ATS regional governance mechanism. It will consider existing regional frameworks such as the CTI, though this excludes Australia. An adaptive approach will be taken in designing the structure and financing strategy for the mechanism, complementing other regional

Identified Risks	Impact	Likelihood	Risk Assessment	Mitigation Measures
				coordination platforms and fulling the objectives of the ATS countries.
Strategic Resource users including communities and private sector enterprises are reluctant to collaborate with the project.	Medium	Moderately Likely	**Low**	The integrated approaches supported by the project, including EAFM, FIP, ICM, etc., are designed to deliver win-win solutions for resource users and managers. For example, applying sustainable fishing practices under fisheries improvement projects would enable local fishers the opportunity to gain better prices for their catch, while safeguarding the ecosystem services that support the species they are exploiting.

INCREMENTAL REASONING AND EXPECTED GLOBAL, NATIONAL AND LOCAL BENEFITS

Component 1: Regional, National and Local Governance for Large Marine Ecosystem Management

211. GEF incremental support will be used to change the baseline situation with an informal regional mechanism for cooperation and coordination (ATSEF) into a situation with an operational regional mechanism, based on a formal regional cooperation agreement. The weaknesses in the environmental frameworks as well as implementation capacity in Indonesia, Timor-Leste and Papua New Guinea will be strengthened through inter-ministerial committees established by ATSEA and by using GEF support to develop guidelines, and for training and capacity building of technical and government staff. Australia's cofinancing from its baseline, will amount to USD 1.1 million over the duration of the project. Indonesia will provide support to the new regional mechanism and host it in newly built office premises in Bali. Indonesia's total baseline support to strengthening regional, national and local governance amounts to USD 9 million, while the baseline support from Timor-Leste amounts to USD 2 million for this component. The cofinancing contribution by the Government of Papua New Guinea accounts for approximately USD 1.0 million for Component 1.

Component 2: Improving LME Carrying Capacity to Sustain Ecosystem Services

212. Incremental funding from GEF will be used to implement the ecosystem approach to fisheries management (EAFM) for shared stocks in the ATS, such as red snapper and shrimp fisheries. GEF support is also expected to catalyze work on fishery value chains and FIPs and, contingent on the results support any third party initiative towards certification/eco-labelling, such as MSC (Marine Stewardship Council) certification. Implementation of ICM plans that integrate biodiversity conservation concerns will receive GEF support, and networks of MPAs will be established, using the marine spatial planning approach, as in for example the recently designated MPA in the Southeast Aru Islands. GEF funds will also target the conservation of endangered marine megafauna, such as turtles and dugongs. Baseline support to introduction of EAFM in the ATS is linked to Indonesia's, Timor-Leste's and Australia's support to the implementation of the RPoA-IUU, while the support to implementation of ICM plans and conservation of biodiversity is linked to PEMSEA, CTI and actions linked to the implementation of the CMS. Total baseline support to this component amounts to USD 50 million from Indonesia and USD 10 million from Timor-Leste. In addition, value-chain analysis and work on certification for selected fisheries receives baseline funding from NGOs and the private sector as well. The Government of Australia

has pledged USD 2.3 million in cofinancing support for complementary activities under Component 2, and cofinancing from the Government of Papua New Guinea has committed USD 0.5 million.

Component 3: Knowledge Management

213. Monitoring of ATS ecosystem health will receive GEF incremental funding and is supported by a baseline that consists of on-shore and off-shore monitoring of selected ecosystem parameters by the three countries. GEF support will ensure that impact monitoring is conducted related to the implementation of the SAP. 1% of the IW funds will contribute to IW:LEARN and participation in its conferences and contribution to newsletters for sharing of experiences. Baseline support to this component amounts to USD 1.2 million from Australia, USD 8 million from Indonesia, and USD 1 million from Timor-Leste. Australia is particularly positioned to provide invaluable support in terms of knowledge management, from their long-standing experience in implementing state of the art management and conservation of coastal and marine resources.

Global Environmental Benefits

214. The project will generate global environmental benefits in the International Waters and the Biodiversity focal areas, which will include:

- Three functioning national inter-ministry committees (in Indonesia, Papua New Guinea, Timor-Leste, respectively) ensure coordination of policy reform and adoption of ICM plans to:
  - Reduce transboundary pollution in coastal/marine hotspots in the ATS (IW)
  - Improve management and enhance the protection of coastal and marine habitats including 1,000 ha of mangroves, 15,000 ha of coral reefs and 1,000 ha of seagrass beds (BD, IW)
- Introduction of sustainable fishing practices in the transboundary ATS, including:
  - Development and implementation of Fisheries Management Plans for the Arafura and Timor seas and introduction and adoption of EAFM among target fisher communities (IW, BD)
  - 3 fisheries in the ATS under fisheries improvement projects (IW, BD)
  - Reduction of IUU fishing by around 10% and associated reduction of bycatch, equivalent to about 150,000 tons (IW)
- Increase in Marine Protected Areas (MPAs) in the ATS by 645,000 ha (BD, IW)
- Contributing to protection and improved status of threatened marine turtles of global significance (BD)
- Improved management effectiveness of two existing MPAs (one in Indonesia and one in Timor-Leste) according to GEF METT effectiveness score (BD).

215. The global environmental benefits will be underpinned by socio-economic benefits, such as improved livelihoods and food security, accruing from improved delivery of ecosystems services from integrated natural resources management and sustainable fisheries.

216. Reduced vulnerability to climate variability and climate-related risks, and increased ecosystem resilience will benefit coastal communities in the project sites.

Table 7: Global Environmental Benefits

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	800,000 ha under improved management

2. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	*0.25% (refer to Table 5)*

COST-EFFECTIVENESS

217. Building upon the foundational achievements of the first phase of the ATSEA program, GEF funding is directed at supporting the first 5 years of implementation of the regional SAP and NAPs. A substantive proportion of the GEF funds are allocated for capacity building activities, aimed at strengthening the enabling conditions of the institutional and individual stakeholders tasked with long term management and conservation of ATS ecosystem goods and services. This investment is seen as a cost-effective approach at mainstreaming priority actions into national development programming and budgetary frameworks.

218. The ratio of GEF funding to cofinancing contributions is approximately 1:6, indicating that a significant amount of leveraged support has been mobilized.

219. Efficiency gains are also integrated into the project through synergies with ongoing regional initiatives, such as the RPoA-IUU and CTI-CFF, as well as other projects being run concurrently with ATSEA-2, including the GEF funded ISLME project, COREMAP-CTI, etc.

220. A number of cost-effective considerations were integrated into the design of the project implementation arrangements and activities, for example:

    a. To the extent possible, implementation sites were selected where more than one integrated approach could be applied, e.g., EAFM, ICM, and EbA.

    b. The designed project activities are envisaged to be implemented by qualified local service providers, NGOs, research institutions, and/or local consultants.

    c. Regular meetings, such as those for the RSC and the SPF, are designed to be convened in concurrently, in order to minimize travel expenses.

    d. The RPMU will be hosted in office space provided by the Government of Indonesia, and the national coordination units will also be housed in offices of the lead national focal agencies.

PROJECT CONSISTENCY WITH NATIONAL PRIORITIES/PLANS

221. Indonesia and Timor-Leste adopted National Action Programs (NAPs) for the Arafura and Timor seas region in 2013 and 2012, respectively, as part of the TDA/SAP processes supported by the ATSEA project. The pillars of the NAPs are the same five environmental concerns identified in the TDA and the associated environmental quality objectives identified in the SAP. The detailed national actions proposed in the NAPs are reflected in the design of the SAP implementation project, especially in the harmonization of policy reform and strengthening of inter-sectoral coordination, capacity development at national level, and formulation of integrated coastal management plans and establishment of marine protected areas.

222. The project is also fully consistent with the country National Biodiversity Strategies and Action Plans (NBSAPs) that were adopted in 2003 in Indonesia (IBSAP) and 2011 in Timor-Leste. Both Indonesia and Timor-Leste issued updates to their NBSAPs in 2015. The proposed project directly supports the IBSAP´s objectives to (i) strengthen resources for supporting the

development of science, technology and application of local knowledge in the conservation and sustainable use of biodiversity, (ii) reduce and stop the rate of biodiversity degradation, especially in the marine environment, and (iii) strengthen institutional, policy and law enforcement arrangements for the sustainable management of biodiversity, through strengthening of the governance of the ATS. It is fully in line with the priority actions in the Timor-Leste NBSAP that include mainstreaming biodiversity into sectoral plans and programs, and building climate-resilient ecosystems, through its focus on ecosystem-based adaptation and establishment of marine protected areas. This is also closely linked to the priorities of the National Adaptation Program of Action (NAPA) of Timor-Leste that identifies physical destruction of reefs, and mangrove areas as likely climate change impacts.

223. The formulation of the ATSEA SAP has taken into account the CTI Regional Program of Action (CTI-RPoA) and the National Program of Action (NPOA) in both Indonesia and Timor-Leste. The priority activities in this proposal are guided by the relevant CTI documents, including those on IUU, MPAs, and others.

COUNTRY OWNERSHIP: COUNTRY ELIGIBILITY AND COUNTRY DRIVENNESS

224. The participating countries, including Indonesia, Timor-Leste and Papua New Guinea, are eligible for GEF assistance under para 9 (b) of the GEF Instrument. Australia will be participating in the project on a cost-sharing basis, thereby providing an opportunity for cross-country transfer of knowledge and experience between advanced industrialized countries, middle income countries, and lesser developed countries of the region.

225. The proposed project is targeted at assisting countries to strengthen coordination, build capacity, and leverage investments to achieve their commitments under the ATSEA regional SAP and the NAPs. Country commitments to and the sense of ownership of the project have been demonstrated in a series of recent initiatives undertaken by the concerted efforts of the participating countries:

Indonesia:

226. In Indonesia, EAFM principles are integrated into policy and regulatory frameworks. The Director General of Capture Fisheries of MMAF issued Regulation No. 18 of 2014 concerning "Technical guidelines on indicators assessment for the Ecosystem Approach to Fisheries Management. MMAF issued Ministerial Regulation No. 54 of 2014 on the fisheries management plan for fisheries management area 718 (Arafura Sea) – the plan was developed according to EAFM principles. The government of Indonesia through MMAF issued the Ministerial Decree No. of 2012, in regards to the National Action Plan (NPoA-IUU) for prevention and control of Illegal, Unreported, and Unregulated fishing years 2012-2016. However, not all planning stated on the NPoA-IUU have been implemented yet. The Government of Indonesia established a Presidential Task Force on Combatting Illegal Fishing in 2014 and since that time has issued a series of regulations restricting licensing and certain gear types. Since establishing the task force, there has been a concerted and very publicized efforts with respect to illegal fishing – more than 100 apprehended foreign fishing vessels have been destroyed in the past 1-1/2 years

227. The Government of Indonesia passed Act No. 1 of 2014, amending Law No. 27 of 2007 on Management of Coastal Areas and Small Islands. Through this act, substantive funding has been allocated for development and enhanced ecosystem protection in coastal areas and small islands, including within the ATS region. The Strategic Plan of the MMAF Directorate General of Marine Spatial Planning for the period 2015-2019 identifies conservation objectives for endangered species. Also, there are strategic programs on promoting marine ecotourism, with the aim of economic empowerment through alternative livelihoods for local communities.

Papua New Guinea:

228. In Papua New Guinea, EAFM is incorporated into fisheries policy and regulatory frameworks, including the Fisheries Management Act of 1998. In fact, some of the national level fisheries management plans are referred to as best practice in the region. There have been challenges in building capacity at the local level and implementing progressive and inclusive fisheries management for small-scale fishers. In 2014, the National Fisheries Authority (NFA) of PNG started disbursing funds to coastal provinces with the aim of developing small-scale, artisanal fisheries. These arrangements are formalized between the NFA and provincial government administrations, e.g., with the Western Province government.

229. The Medium Term Development Plan 2 (MTDP2), formulated for an abbreviated period of 2016-2017, in order to match the political cycle, outlines specific strategic goals for the fisheries sector that are closely aligned to the ATSEA-2 project objectives. These include developing human capacity, combatting IUU fishing, and introducing a licensing system for small-scale fishers. Other relevant policy advances in recent years include issuance of the Climate Change Policy in 2014 and passing the Climate Change Management Act of 2015.

Timor-Leste:

230. For Timor-Leste, there have been considerable advances in terms of capacity building in recent years, and updates to certain policies and legislation are in the pipeline. Development in Timor-Leste continues to be project-driven; including the GEF financed UNDP supported shoreline resilience project that is currently under review; a project managed by Worldfish on aquaculture and alternative livelihoods; projects also funded by USAID and other donors. The FAO support development of the National Aquaculture Strategy and the agency is currently assisting MAF in revising the Law on Fisheries. The Norwegian Agency for Development Cooperation (NORAD) is also providing fisheries development assistance, including a stock assessment for small-scale fishers. NORAD is also assisting with policy related initiatives. Timor-Leste has completed a national plan of action (NPoA-IUU) in response to the regional plan of action regarding IUU fishing (RPoA-IUU).

231. As part of the Coral Triangle Pacific Project (Strengthening Coastal and Marine Resources Management in the Coral Triangle of the Pacific - Phase 2**)**, supported by ADB, a management plan for the Nino Konis Santana National Park has been prepared. The management plan is not yet endorsed. PEMSEA is actively supporting the Government of Timor-Leste with ICM planning activities, including for Município Manatuto. Australian partners are also supporting management of marine and coastal resources in Timor-Leste. For example, an assessment on marine turtles is underway by professional from the Charles Darwin University.

SUSTAINABILITY AND REPLICABILITY

232. The project aims to build upon the achievements of the first phase of the ATSEA program in facilitating collective regional action in the ATS. The approach to bring together three developing countries (Indonesia, Papua New Guinea and Timor-Leste), two of which have had a recent history of conflict, with a developed country (Australia) that brings technical knowledge and state of the art expertise to assess, analyze, and reach joint resolutions on regional natural resource management problems, is unique, and resulted in a swift TDA/SAP process that also included joint cruises to assess the status of the ATS ecosystem as well as regional demonstration projects with regional sharing of lessons and experiences. This second phase of the ATSEA-2 program supports SAP implementation and adds new innovative elements related to the mainstreaming of

biodiversity concerns, as identified in the NBSAPs, into the SAP and NAPs for the ATS countries as well as integrated coastal management (ICM) plans to protect some of the most valuable and threatened marine biodiversity on earth in the eastern part of the coral triangle. The participation by Papua New Guinea is also increased under this second phase, rounding off involvement of all 4 of the ATS littoral countries, making the regional governance mechanism more representative and inclusive.

233. The mechanism for stakeholder participation, including establishment of a Stakeholder Partnership Forum (SPF) that brings together representatives from central and local governmental units, local communities, NGOs, academia and scientific institutions, and the private sector is also innovative and enhances the likelihood for sustaining continued implementation of the SAP and NAPs, by reaching out to a broader spectrum of stakeholders, expanding the level of ownership, and encouraging a wider use implementation options, including public-private partnerships. The SPF will also be a platform for facilitating more active involvement of women and local people in the decision making processes regarding management and conservation of the ecosystem goods and services that their communities rely on. And, the achievements of the ATS Expert Forum (ATSEF) realized over the past 10+ years will be supported through the SPF, ensuring that leading technical experts introduce reliable scientific and management solutions to the priority environmental concerns in the ATS.

234. Institutional strengthening at regional, national, and local levels coupled with a strong resource mobilization strategy and establishment of financing mechanisms will contribute to the sustainability of the project interventions and gradual rolling out of the SAP and NAPs. In addition, the project's win-win approach to generating interlinked global environmental and socio-economic benefits will ensure sustained support and interest from local communities to adopt measures such as EAFM and area-based management of critical habitats for provision of ecosystem services important for food security and the environmental status of the ATS. A substantive proportion of the project budget is allocated for capacity and awareness building, aimed at empowering local resource beneficiaries and managers in becoming more involved with ecosystem management decisions.

235. Experiences and lessons learned from the demonstration projects in the first phase of the ATSEA program will be replicated and scaled up as appropriate, as best practices examples of how to address common concerns related to coastal and marine management in the ATS, which provides a cost-effective way of implementing the SAP. The national and regional demonstration projects implemented as part of the TDA and SAP development process included: (i) management of mangrove areas as a buffer zone for coastal ecosystem, seaweed farming and mud crab rearing in Indonesia; (ii) coastal livelihood project in Timor-Leste; and (iii) regional community-based management project and sustainable livelihood development. Best practices for possible scaling up will be expanded in ATSEA-2, e.g., including experiences from governance reforms supporting ecosystem-based management, establishment of MPAs, and implementation of ecosystem-based adaption to climate change in coastal areas. The knowledge management component of the project will support the dissemination of best practices generated to national and regional partners and, through IW:Learn, to a wider international audience.

236. Sustainability considerations were an integral part of the project design and will be mainstreamed across all components during implementation. The project has been developed in close collaboration with partners and stakeholders in the ATS countries. This has allowed for identifying and selecting project sites and interventions that relate to local and national priorities. The project preparation team consisted of international and national specialists, who were supported by key government officials and other direct stakeholders through multiple consultations throughout the project design phase. National and regional workshops as well as consultations with smaller groups of stakeholders were carried out in Indonesia and Timor-Leste, and also in Papua New Guinea near the end of the preparation phase.

Financial dimension of sustainability

237. Mainstreaming the priority actions agreed upon in the national action programs (NAPs) into national development programming and budgetary frameworks will be a key measure of financial sustainability. The project is supporting the establishment and functioning of the national inter-ministerial committees (NIMCs), which will play important roles in bridging the ATS priorities with those of the beneficiary countries.

238. The operation of the ATS Regional Coordination Committee (RCC) and Secretariat will be financed by the project for the 5-year duration of the implementation. During this timeframe, a longer term financing strategy will be completed, with the aim of not depending upon project level support only for the continued operation of the RCC and Secretariat.

239. The long-term economic and financial sustainability in relation to EAFM implementation is closely linked to the overall project objectives. Ineffective management practices contribute to risk and uncertainty for long-term sustainability. For example, after the vessel moratorium in Indonesia, in the short and medium-term, it is likely that income to fishers, most of which are small-scale ones, will increase due to catch increase left by large-scale fisheries. Fishers may hence need a certain level of support to cope with this situation and the development of capacity on fish handling and marketing. The EAFM activities and also the fisheries improvement projects (FIPs) supported by the project will help facilitate financial resilience of small-scale fishers through introduction of market-based incentives, partnerships and collaboration with seafood and marketing organizations.

240. With respect to the biodiversity conservation activities on the project, there is concerted focus on strengthening the financial sustainability of the management of two existing marine protected (MPAs) areas, and innovative financing will be an integral part of the management plans developed for the two new MPAs to be designated under this project. Biodiversity mainstreaming, e.g., through integrated coastal management (ICM) arrangements, are designed to provide win-win, incentivized opportunities for local government units and developers in fulfilling socio-economic development goals while at the same time safeguarding the ecosystem goods and services that future growth relies upon.

241. The participatory approach taken from the beginning of project design and the fact that the project addresses national and regional priorities, will help ensure continued government funding of required activities and structures. In the longer term and in line with further policy reform in the beneficiary ATS countries, it could also be foreseen that some of the resource management functions would possibly be user-financed through local government units and private sector partnerships, with support from market-based incentives.

Socio-economic dimension of sustainability

242. The ultimate success of implementation of the SAP will be measured by how priority actions are carried out at the local level. Providing scale-able frameworks, e.g., through ICM plans, will provide local stakeholders with a roadmap for integrating the socio-economic development priorities of their communities with the sustainable management and conservation of the ecosystem goods and services they are reliant on. Local communities increase participation in ecosystem management and benefit sharing.

243. In many rural, coastal areas in the ATS region, traditional aspects plays strong role in the decision making process both formally and traditionally. By establishing a communication forum consisting of stakeholders in each district, this forum will ensure the sustainability of the activities beyond the life of the project. Creating collaborative management arrangements for the implementation of EAFM is a fundamental strategy in this respect. Stakeholder participation and consultations using the principles of equitable development will be a key component in project

design. Information and capacity will be offered to fishers and other concerned stakeholders with regard to awareness of and knowledge on conservation on marine resource management and IUU fishing.

244. The role and contribution of women in fisheries and coastal resource management are significant but largely invisible and undervalued in many areas in the ATS region. According to the gender-based division of labor, mostly men engage in fishing, while women take care of the shore-based work such as preparing logistics for fishing trips, mending nets, sorting and selling fish, processing fish such as drying, salting and smoking of fish products. Although there are limited quantitative data available regarding gender-disaggregated labor, it is clear that women play important roles in small-scale artisanal fisheries in Indonesia. By mainstreaming gender issues in the project design, taking into account local and traditional wisdoms such as "Sasi" that are strongly acknowledged in the ATS region, there is an increased likelihood that gender involvement will be strengthened and sustained after project closure.

Institutional framework and governance dimension of sustainability

245. One of the underlying aims of the project is improved regional and national governance, and Component 1 is designed to strengthen institutional framework and governance enabling conditions. The project steering committee and regional project management unit will function as the Regional Coordination Committee (RCC) and ATS Secretariat, providing 5 years of sustained regional governance and commitment by the littoral countries by the end of the project to continue supporting these mechanisms beyond project closure. Broader stakeholder involvement, through the establishment of the Stakeholder Partnership Forum (SPF), will expand ownership to non-governmental beneficiaries, including the private sector, resulting in a more inclusive governance process. The project is also facilitating cross-sectoral coordination, through the national inter-ministerial committees (NIMCs), and implementation of integrated approaches which require multi-sectoral involvement. These efforts will also enhance governance and also the institutional frameworks, e.g., through approval of ICM plans, EAFM plans, new MPAs, etc. Mainstreaming the ATS NAPs into national development programming and budgetary frameworks, such as medium term development plans, will further contribute to the institutionalization of the priority actions.

246. Capacity building with regard to knowledge and awareness supports the institutional arrangements for the implementation of sustainable management and conservation of coastal and marine resources of the ATS region. These investments will also contribute to a broader acceptance of the need for improved management and responsible fishing practices at the national and regional level, providing a basis for continued action and sustainability of project results after its completion.

247. The national inter-ministerial committees strengthened as part of ATSEA-2 will also enhance the likelihood of sustainability of project results, as these coordination structures will be critical in ensuring cross-sectoral involvement, and also support collaborative policy reform.

248. The existence of multilateral forums such as ATSEF, CTI-CFF and RPoA-IUU, in which all project supporting countries are signatories, is a major assuring factor for the sustainability of this project. These regional institutional arrangements be enhanced by promoting both the synergies and the unique circumstances of the ATS region The key project approach here is to strengthen the functions of such existing platforms rather than creating new ones.

Environmental dimension of sustainability

249. Through the implementation of integrated, ecosystem based approaches, e.g., EAFM, ICM, and EbA, the sustainability of ecosystem goods services will be enhanced. One of the incremental

benefits of the GEF support is the transfer of regional and international best practice through applying integrated approaches to the priority environmental concerns of the ATS region.

250. The second phase of the ATSEA program will also make significant contributions to the scientific knowledge base of the ATS coastal and marine ecosystems. For example, two ATS ecosystem assessment cruises are planned to support the fisheries components, climate change impacts will be evaluated through application of state of the art assessment techniques, biophysical and socio-economic surveys will be completed to support the designation of the planned new MPAs, and ecosystem based adaptation activities will be based upon best available local and regional scientific knowledge.

251. Pressures on critical habitats and ecosystems will be decreased through implementation of integrated coastal management, designation of new MPAs, strengthening the management effectiveness of existing MPAs, and design of a regional network of MPAs which will identify connectivity priorities across a transboundary scale. With respect to endangered species, the envisaged regional action plan on the protection of migratory marine turtles will make an important contribution to strengthening the enabling framework for enhanced protection of these animals.

252. Assessing pollution hotspots across the region will help prioritize regional and national efforts at reducing impacts from land-based and marine sources of pollution. The project is also supporting development of an ATS Marine Debris Prevention and Control Plan, and implementation of community level activities regarding incentivizing local stakeholders to reduce and recover marine debris. These efforts will contribute to reducing pressures on coastal and marine ecosystems, thus enhancing the likelihood of environmental sustainability.

Replication

253. The project will promote replicability by: (i) supporting establishment of a regional cooperation mechanism and institutional development for collaborative implementation of ATS SAP and NAPs and generating experiences that can be used elsewhere in the region; (ii) developing and implementing conservation measures and approaches that includes EAFM, ICM and MPA network that can be replicated and further developed in other situations in similar contexts; (iii) implementing field activities in the selected project sites in Indonesia and Timor-Leste with the participation of Australia that will provide results with a high potential for replication throughout the countries and region; and (iv) developing indicators and implementing methods for knowledge management that will benefit similar projects throughout the region.

254. The project replication strategy is outlined below:

a. Sponsor institutional and individual capacity building on integrated approaches to coastal and marine ecosystem management and conservation;

b. Identify and train “change agents”, enabling them to advocate and facilitate replication of the project results;

c. Facilitate broader inclusion of women and local people into the processes of coastal and marine ecosystem management and conservation; (e.g., business and financial management, alternative livelihood training, etc.)

d. Promote adjustments to policy and regulatory frameworks that provide incentives for involvement of non-governmental stakeholders, including the private sector;

e. Design and implement integrated approaches that deliver scale-able frameworks for capacitated national and local stakeholders to replicate in other areas;

f. Distill project results into informative, easily understood knowledge products that can guide replication efforts after project closure;

g. Coordinate with other complementary initiatives, ensuring that lessons learned and best practices are exchanged across sectors and countries, and synergies capitalized upon for mutually supporting replication; and

h. Implementation of inclusive knowledge management strategy.

255. Replication opportunities include but are not limited to the following:

a. The vessel reporting system can be replicated to other areas within the littoral countries and in other parts of Southeast Asia;

b. The community based monitoring, control, and surveillance (MCS) activities could be replicated in other areas;

c. The fisheries improvement projects (FIPs) could be up-scaled beyond the area-specific fisheries areas, and also could be replicated for other species;

d. The climate change assessment efforts could be up-scaled, including additional parameters and introducing a larger number of variables. Impact assessments could be made for different species, and vulnerability assessments replicated in other at-risk communities.

e. The integrated coastal management (ICM) and ecosystem based adaptation (EbA) plans and interventions could be up-scaled to other parts of the districts/municipalities where they will be implemented, and also replicated in other areas.

f. The alternative livelihood options piloted and other community based activities, such as locally managed marine areas (LLMAs) could also be up-scaled at the project sites and replicated elsewhere.

256. Through public and private sector partnerships with existing national and regional organizations, government agencies, NGOs and other structures, projects results should be able to be absorbed and utilized broadly not just in the ATS region but extending to SE Asia and South Pacific regions.

PART III: Management Arrangements

IMPLEMENTATION ARRANGEMENTS

Implementing and Executing Agencies

The project will be managed according to the standard arrangements established for UNDP-GEF projects in the International Waters focal area, including the following structures:

a. Implementing Agency (IA)
b. Executing Agency (EA) (UNDP Implementing Partner)
c. Regional Steering Committee (RSC)
d. National Project Boards
e. Regional Project Management Unit (RPMU)
f. National Coordination Units (NCU)
g. Project Partners

257. This regional project will be implemented under NGO implementation modality for regional component and Papua New Guinea national component. National implementation modality will be for Timor Leste national component and Indonesia national component. UNDP will be the GEF Implementing Agency (IA) and therefore will be ultimately responsible to GEF for the channeling of resources to the executing agencies (or UNDP implementing partners) in accordance with UNDP rules and regulations. PEMSEA Resource Facility (PRF) will be the Implementing Partner for regional component and Papua New Guinea national component, based on the standard Project Cooperation Agreement to be signed between UNDP Indonesia and PRF. In case of National components, the Implementing Partner for Timor Leste will be Ministry of Agriculture and Fisheries (MAF) and the Implementing Partner for Indonesia will be Ministry of Marine Affairs and Fisheries (MMAF), according to the Standard Basic Assistance Agreement between UNDP and the Government, and the Country Programme.

258. The national level activities will be coordinated by national coordination units, who will be guided by the RPMU and report to national project boards in each of the countries.

    The UNDP COs and UNDP-GEF will provide overall project assurance and oversight of the implementation of the ATSEA-2 project.

Regional Steering Committee (RSC)

259. Oversight of the implementation of the project, including review and approval of overall project annual work plans, budgets, and progress reports, will be the responsibility of the inter-governmental ATS Regional Steering Committee (RSC). As a minimum, the RSC will include representatives from:
    a. National Government Lead Agencies: Indonesia, Papua New Guinea and Australia
    b. UNDP
    c. PEMSEA RF

260. During the course of the 5-year project implementation phase, the RSC will function as the interim ATS Regional Coordination Committee (RCC), and the RPMU will act as the interim ATS Secretariat for the RCC and will prepare required documentation for the annual meetings. These interim roles will cease as soon as the RCC and Secretariat are formally created and operational.

261. The ATS Stakeholder Partnership Forum (SPF) will provide advice and support to the RSC, and annual meetings of the SPF, with support from the project, will be convened to coincide with

the annual RSC meetings, in order to build upon the strong partnership arrangements already established under ATSEF, as well as for cost-effectiveness purposes.

262. The RSC will meet at the commencement of the project, at project inception, and then annually. Meetings of the RSC will rotate around each of beneficiary ATS countries, as may be decided by the RSC. The first meeting will be held following the project inception meeting in Bali.

National Project Boards

263. In order to support the implementation of the national level activities and in fulfillment of national procedures associated with international donor funding, national project boards will be established in each of the three beneficiary countries. At a minimum, the national project boards will include representatives from:
    a. Lead Governmental Agency
    b. National Planning/Development Agency
    c. UNDP Country Office

264. The national project boards will support the national coordination units through review of procurement results, approval and review of national project work plans and progress reports, and supporting strategic decisions required to facilitate implementation of the project activities. The national project boards will also have direct lines of communication with the RSC.

Regional Project Management Unit (RPMU)

265. RPMU staff will be recruited for the duration of the project. The envisaged composition of the RPMU is as enumerated below. Additional staff may be recruited as necessary to ensure adequate support for this complex regional project:
    a. Regional Project Manager (RPM), full-time
    b. Biodiversity Specialist, full-time (for first 2 years of implementation)
    c. Policy/Results-based Management (RBM) Specialist, full-time (for first 2 years)
    d. Finance/Administrative Officer, full-time
    e. Administrative Assistant, full-time
    f. Procurement Assistant, full-time

266. The RPMU will also consist of the following staff under long-term or short-term agreement arrangements:
    a. Communication and Knowledge Management Specialist
    b. Gender Equity and Social Inclusion Coordinator

267. The RPMU office will be hosted by the government of Indonesia. It will be located in Bali in a dedicated office in the Tuna Research Center, an entity of MMAF.

268. The RPMU will be responsible for the day-to-day management of all aspects of the project, including reporting to the EA and IA. Short-term consultants and other relevant support will be hired as needed to support the implementation of the project. Travel arrangements and other logistical activities from the regional component will be organized according to the established rules and procedures of PEMSEA RF, together with the UNDP country offices.

269. The position of RPM will be recruited by PEMSEA internationally, and the desired candidate would be someone with regional experience, preferably having expertise in the field of focus of the project. The RPM should be delegated with sufficient decision-making authority to allow effective project management. The positions of biodiversity specialist and policy/RBM specialist will be recruited regionally. The terms of reference (TOR) for the long-term positions are in the **Annex H**.

National Coordination Units (NCUs)

270. National coordination units (NCUs) will be established in each of the three beneficiary countries, with the following staff hired by the National Implementation Partners, following their respective guidelines and procedures. Recruitment will be supported by the RPMU and by the UNDP country offices as may be requested.

Indonesia	**Timor-Leste**	**Papua New Guinea**
National Coordinator	National Coordinator	National Coordinator
Finance/Admin. Associate	Finance/Admin. Associate	Finance/Admin. Associate
Site Mobilizer (3)	Site Mobilizer (2)	

271. The NCU staff members are for the most part envisaged as full-time positions. The Finance/Administrative Associate for the Papua New Guinea NCU is budgeted at half-time. The site mobilizers will be based in the locations where field activities are planned, and office space arrangements will be organized with the relevant local partners, which could include local government units or non-governmental organizations. Australia will designate a National Coordinator, employed under its own arrangements.

ATSEA-2 Organogram

272. The organization structure of the ATSEA-2 implementation and management arrangements are illustrated below in **Figure 9** in the ATSEA-2 Organogram.

Flow of Funds

273. As the GEF implementing agency, UNDP will receive funds for this project. The flow of funds from UNDP to the Implementing Partners is described by component below.

Regional Component:

274. The funds will be transferred to PRF following UNDP procedures outlined in the Project Cooperation Agreement (PCA) to be signed between the two organizations. UNDP refers to UNDP Indonesia as the PPRR. PRF will then transfer the funds to PNG national implementing partners, following the terms and conditions of a grant agreement to be formalized. These agreements will be in accordance with UNDP rules and procedures regarding quarterly releases and acquittals. The national implementing partner will disburse the funds directly related to the implementation of activities identified in the grant. It is noted that PRF may request for services to be rendered by UNDP offices and this will be subject to relevant policies and procedures.

National Components: Indonesia and Timor Leste

275. Based on the approved Annual Work Plan, UNDP shall provide the required financial resources to the national Implementing Partners to carry out project activities following the Harmonized Approach to Cash Transfer (HACT) Framework. Cash transfer modalities shall be determined by results of the assessments required. For National components, The Government of Indonesia and The Government of Timor-Leste have agreed to use Direct agency implementation based on Country Office Support Services (COSS) agreements. In providing these services, UNDP will apply its rules and regulations. The Support services and conditions attached to them are described in the COSS agreement. Services provided by the UNDP Country Office, including those through the COSS modality, will be subject to audit by UNDP's external (the United Nations Board of Auditors) and/or internal auditors (UNDP's Office of Audit and Investigation).

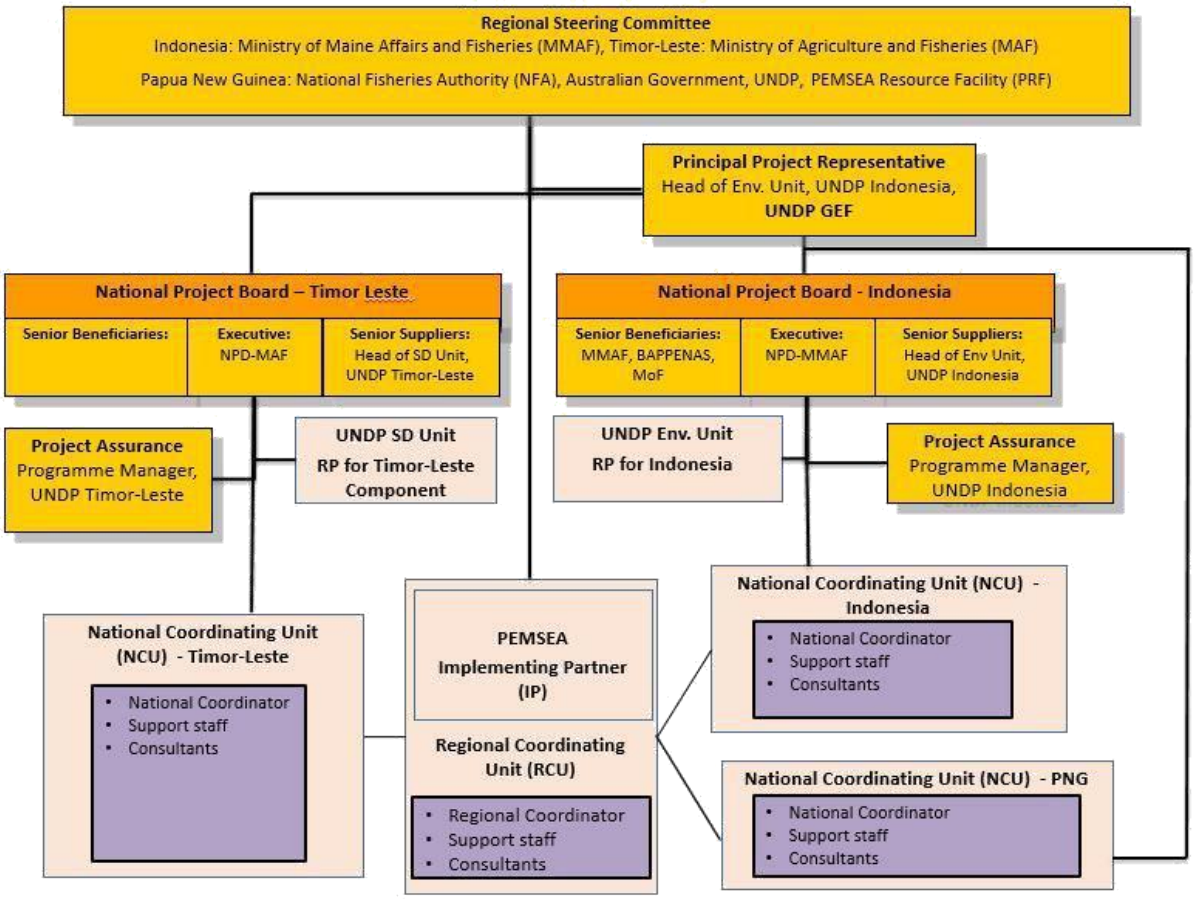

Figure 9: ATSEA-2 Organogram (simplified)

Note: The Regional Steering Committee (RSC) and the Regional Project Management Unit (RPMU) will transition into the ATS Regional Coordination Committee and ATS Secretariat, respectively, as provided in the SAP.

276. UNDP is the sole GEF Implementing Agency for the project, providing the project assurance and cycle management services. As such, UNDP holds overall accountability and responsibility for the delivery of results to the GEF. Working closely with MMAF of the Indonesia Government and MAF of the Timor-Leste Government, the UNDP Country Office (UNDP CO), specifically the Environment Unit Programme Manager (Indonesia CO) and Sustainable Development Unit Programme Manager (Timor-Leste CO), will provide the project assurance role and will: 1) provide financial and audit services to the project including budget release and budget revision, 2) oversee financial expenditures against project budgets, 3) ensure that all activities including procurement and financial services are carried out in strict compliance with UNDP/GEF procedures, 4) ensure that the reporting to GEF is undertaken in line with the GEF requirements and procedures, 5) ensure project objectives achievement and timeliness, 6) facilitate project learning, exchange and outreach within the GEF family, 7) contract the project mid-term and final evaluations, and 8) trigger additional reviews and/or evaluations as necessary and in consultation with the project counterparts. The UNDP Country Director or his designated officials will be represented on the Project Board. Strategic oversight and additional quality assurance will be provided by the UNDP/GEF Regional Technical Advisor (RTA) responsible for the project. This oversight will include ensuring that the project practices due diligence with regards to UNDP's Social and Environmental Screening Procedure.

277. Under the COSS arrangement, UNDP will be responsible for (i) the identification and recruitment of project and programme personnel, (ii) procurement of goods and services, (iii) the administration

of donor financial contributions and, (iv) provision of other technical or administrative support required to deliver the outputs. In providing these services, UNDP will apply its rules and regulations. Services provided by the UNDP Country Office, including those through the COSS modality, will be subject to audits as per UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.

278. UNDP will provide technical guidance, administrative and managerial support and oversight to the project. A National Project Director will be appointed by the Implementing Partner to oversee and provide appropriate guidance to the UNDP-Project Management Unit, which will manage day to day activities of the project. However, the Implementing Partner will retain overall ownership of the programme, including authority to provide strategic guidance and to endorse the project Annual Work Plan.

279. UNDP Direct Project Services as requested by Government (if any): The UNDP, as GEF Agency for this project, will provide project management cycle services for the project as defined by the GEF Council. In addition the Government of Indonesia and the Government of Timor-Leste may request UNDP direct services for specific projects, according to its policies and convenience. The UNDP and the Government of Indonesia/the Government of Timor-Leste acknowledge and agree that those services are not mandatory, and will be provided only upon Government requests. If requested, the services would follow the UNDP policies on the recovery of direct costs. These services (and their costs) are specified in the Letter of Agreement (Annex N). As is determined by the GEF Council requirements, these service costs will be assigned as Project Management Cost, duly identified in the project budget as Direct Project Costs. Eligible Direct Project Costs should not be charged as a flat percentage. They should be calculated on the basis of estimated actual or transaction based costs and should be charged to the direct project costs account codes: "64397-Services to Projects – Staff" and "74596- Services to Projects – General Operating Expenses (GOE)".

PART IV: Monitoring and Evaluation Plan and Budget

MONITORING AND REPORTING

280. Project monitoring and evaluation (M&E) will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the UNDP Country Offices (UNDP-COs) with support from the UNDP/GEF from the Bangkok Regional Hub (BRH). The Strategic Results Framework and GEF Tracking Tools provide performance and impact indicators for project implementation along with their corresponding means of verification. The M&E plan includes: inception report, project implementation reviews, quarterly and annual review reports, and a mid-term and final evaluation. The following sections outline the principal components of the Monitoring and Evaluation Plan and indicative cost estimates related to M&E activities. The project's Monitoring and Evaluation Plan will be presented and finalized in the Project's Inception Report following a collective adjustment of indicators, means of verification, and the full definition of project staff M&E responsibilities.

Inception Phase

281. A Project Inception Workshop will be conducted with the full project team, participating countries representatives, cofinancing partners, the UNDP Country Offices, and representation from the UNDP-GEF Regional Coordinating Unit. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goal and objective, as well as finalize preparation of the project's first Annual Work Plan (AWP) on the basis of the SRF matrix. This will include reviewing the project document, in particular the SRF (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise, finalizing the AWPs at the reginal and national levels with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project. Additionally, the purpose and objective of the Inception Workshop will be to: (i) introduce project staff with the UNDP-GEF team and the EA (PEMSEA RF) which will support the project during its implementation; (ii) detail the roles, support services and complementary responsibilities of UNDP Country Offices and BRH staff vis-**à**-vis the project team; (iii) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs), GEF Tracking Tool and related documentation, the Annual Project Report (APR), as well as the midterm review and terminal evaluation.

282. The inception workshop will also provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget re-phasing. The inception workshop will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff and decision-making structures will be discussed again, as needed in order to clarify for all, each party's responsibilities during the project's implementation phase.

Monitoring responsibilities and events

283. A detailed schedule of project review meetings will be developed by the project management team, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Stakeholder Partnership Forum meetings and (ii) project related Monitoring and Evaluation activities. Day-to-day monitoring of implementation progress will be the responsibility of the Regional Project Manager based on the project's Annual Work Plans and its indicators. The Regional Project Manager will inform the UNDP Country Offices of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion. The Regional Project Manager will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the Inception Workshop with support from UNDP Country Offices and assisted by the UNDP-GEF Regional Coordinating Unit. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at this Workshop.

These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plans. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

284. Measurement of impact indicators will occur according to the schedules defined in the Inception Workshop. The measurement of these will be undertaken by project team of the participating countries and local governments. Periodic monitoring of implementation progress will be undertaken by the UNDP Country Offices through periodic meetings with the Implementing Partner, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

285. Annual monitoring will occur through the RSC which in the interim serves as the Regional Coordination Committee. This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project report will be submitted to the Committee in July each year.

286. The Regional Project Manager will prepare a UNDP/GEF PIR/APR with inputs from all stakeholders for review and approval by UNDP Country Offices and UNDP-GEF BRH, prior to submission to the UNDP-GEF headquarters and subsequently to the GEF. The same report will be shared with the National Project Boards and the RSC and presented at its meetings. The PIR/APR will be used as one of the primary resource document for discussion of project progress and performance.

287. The terminal report of the project will be submitted to the RSC in the last month of project operations. The Regional Project Manager is responsible for preparing the Terminal Report and submitting it to the PEMSEA RF Executive Director, UNDP Country Offices, and UNDP-GEF BRH for review and comment, prior to submission to the RSC. The terminal report shall be prepared in draft at least two months prior to the last RSC meeting in order to allow review, and will serve as the basis for discussions in the RSC. The RSC will consider the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects under implementation of formulation.

288. UNDP Country Offices and UNDP-GEF BRH as appropriate, will conduct regular visits to project sites based on an agreed upon schedule to be detailed in the project's Inception Report/Annual Work Plan to assess first hand project progress. A Field Visit Report (back to office report – BTOR) will be prepared by the Country Office and UNDP-GEF BRH and circulated no less than one month after the visit to the project team, all RSC members, and UNDP-GEF.

Project Reporting

289. The Regional Project Manager will be responsible for the preparation and submission of the following reports that form part of the monitoring process to the UNDP Country Offices and UNDP-GEF extended team. The first six reports are mandatory and strictly related to monitoring, while the last two have a broader function and the frequency and nature is project specific to be defined throughout implementation.

290. A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed First Year/Annual Work Plans divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the

project. These Work Plans will include the dates of specific field visits, support missions from the UNDP Country Offices or the UNDP-GEF BRH or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plans, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 month time-frame. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. When finalized, the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the Project Inception Report, the UNDP Country Offices and UNDP-GEF's Regional Coordinating Unit will review the document.

291. An Annual Progress Report shall be prepared by the Reginal Project Manager for review and approval by the PRF Executive Director and shared with the UNDP Country Offices, UNDP-GEF BRH, and the RSC. As a self-assessment by the project management, it does not require a cumbersome preparatory process. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the Annual Progress Report (APR) covering the whole year with updated information for each element of the APR as well as a summary of results achieved against pre-defined annual targets at the project level. As such, it can be readily used to spur dialogue with the RSC and partners. An APR will be prepared on an annual basis prior to the RSC meeting to reflect progress achieved in meeting the project's Annual Work Plans and assess performance of the project in contributing to intended outcomes through outputs and partnership work. The APR should consist of the following sections: (i) project risks and issues; (ii) project progress against pre-defined indicators and targets and (iii) outcome performance.

292. The Project Implementation Review (PIR) is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from on-going projects. Once the project has been under implementation for a year, a PIR must be completed by the UNDP Indonesia together with the project team. The PIR should be prepared early in the second half of the year and discussed with the UNDP Country Offices and the UNDP-GEF BRH during prescribed final submission to the UNDP-GEF Headquarters.

Quarterly progress reports: Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Offices and the UNDP-GEF BRH by the project team. Progress made shall be monitored by the PPR in the UNDP Enhanced Results based Management Platform.

UNDP ATLAS Monitoring Reports: A Combined Delivery Report (CDR) summarizing all project expenditures, is mandatory and should be issued quarterly. The Project Director should send it to the RSC for review and the Implementing Partner should certify it. The following logs should be prepared: (i) The Issues Log is used to capture and track the status of all project issues throughout the implementation of the project - it will be the responsibility of the Regional Project Manager to track, capture and assign issues, and to ensure that all project issues are appropriately addressed;
(ii) the Risk Log is maintained throughout the project to capture potential risks to the project and associated measures to manage risks. It will be the responsibility of the Project Manager to maintain and update the Risk Log, using Atlas; and
(iii) the Lessons Learned Log is maintained throughout the project to capture insights and lessons based on good and bad experiences and behaviors. It is the responsibility of the Project Manager to maintain and update the Lessons Learned Log.

Project Terminal Report: During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities,

achievements and outputs of the Project, lessons learnt, objectives met or not achieved, structures and systems implemented, etc., and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project's activities.

Periodic Thematic Reports: As and when called for by UNDP COs, UNDP-GEF or the EA, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learnt exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

293. Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national and international levels.

294. Project Publications will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications may be scientific or informational texts on the activities and achievements of the Project, in the form of journal articles, multimedia publications, etc. These publications can be based on Technical Reports, depending upon the relevance, scientific worth, etc. of these Reports, or may be summaries or compilations of a series of Technical Reports and other research. The project team will determine if any of the Technical Reports merit formal publication, and will also (in consultation with UNDP, the government and other relevant stakeholder groups) plan and produce these Publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget.

INDEPENDENT EVALUATIONS, AUDITS AND FINANCIAL REPORTING

295. The project will be subjected to two independent external evaluations as follows: An independent Midterm Review will be undertaken at exactly the mid-point of the project lifetime. The Midterm Review will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference (TOR) for this Midterm Review will be prepared by the EA following guidance documents from the UNDP and GEF. The TOR will be cleared by UNDP and presented to the RSC prior to the conduct of the MTR. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC). The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

296. An independent Terminal Evaluation will take place three months prior to the termination of the project, and will focus on the same issues as the midterm review. The terminal evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to UNDP-GEF Project Information Management system (PIMS) and to the UNDP Evaluation Office Evaluation resource Center (ERC). The Terms of Reference for this evaluation will be prepared by the EA following UNDP and GEF guidance documents. It will be cleared by UNDP and presented at the RSC. The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

LEARNING AND KNOWLEDGE SHARING

297. Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums. The project will devote at least 1% of the GEF budget to IW portfolio learning, including participation in all GEF IW conferences. In addition, the project will participate, as relevant and appropriate, in UNDP/GEF sponsored networks, organized for Senior Personnel working on projects that share common characteristics. UNDP-GEF Regional Coordination Unit has established an electronic platform for sharing lessons between the project coordinators. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identify and analyzing lessons learned is an on- going process, and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered not less frequently than once every 12 months. UNDP/GEF will provide a format and assist the project team in categorizing, documenting and reporting on lessons learned. Plans regarding project knowledge management are described in the section on Knowledge Management (Component 3).

Communications and visibility requirements:

298. Full compliance is required with UNDP's Branding Guidelines. These can be accessed at http://intra.undp.org/coa/branding.shtml, and specific guidelines on UNDP logo use can be accessed at: http://intra.undp.org/branding/useOfLogo.html. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: http://www.thegef.org/gef/GEF_logo.

299. Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf. Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

300. Where other agencies and project partners have provided support through cofinancing, their branding policies and requirements should be similarly applied.

AUDIT CLAUSE

301. The EA will provide UNDP Country Offices with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of GEF funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted according to UNDP financial regulations, rules and audit policies by the legally recognized auditor of the Government, or by a commercial auditor engaged by the EA.

Summary of M&E Activities, Responsibilities, Budget, and Timeframe

302. A compilation of the M&E activities, responsibilities, budget, and timeframe is presented below in **Table 8**.

Table 8: M&E Activities, Responsibilities, Budget and Time Frame

Type of M&E activity	**Responsible Parties**	**Budget USD** *Excluding project team staff time*	**Time frame**
Inception Workshop	Regional Project Manager, National Implementation Partners, UNDP Country Offices, UNDP GEF	USD 50,000	Within first three months of project start up
Inception Report	Project Team, UNDP Country Offices	None	Immediately following inception workshop
Measurement of Means of Verification for Project Purpose Indicators	Regional Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop. Indicative cost: USD 75,000	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	Oversight by Regional Project Manager, Project team	To be determined as part of the Annual Work Plans' preparation. Indicative cost: USD 25,000 (annually); total: USD 125,000	Annually prior to ARR/PIR and to the definition of annual work plans
ARR and PIR	Project Team, UNDP Country Offices, UNDP-GEF	None	Annually
Quarterly progress reports	Project team	None	Quarterly
CDRs	Regional Project Manager	None	Quarterly
Issues Log	Regional Project Manager UNDP Country Office Programme Staff	None	Quarterly
Risks Log	Project Manager UNDP Country Office Programme Staff	None	Quarterly
Lessons Learned Log	Regional Project Manager UNDP Country Office Programme Staff	None	Quarterly
Midterm Review	Project team, UNDP Country Offices,	USD 50,000	At the mid-point of project implementation.

Type of M&E activity	Responsible Parties	**Budget USD** *Excluding project team staff time*	Time frame
	UNDP-GEF Regional Coordinating Unit, External Consultants (i.e., evaluation team)		
Terminal Evaluation	Project team, UNDP Country Offices, UNDP-GEF Regional Coordinating Unit, External Consultants (i.e., evaluation team)	USD 50,000	At the end of project implementation
Terminal Report	Project team, UNDP Country Offices, Local consultant	USD 10,000	At least one month before the end of the project
Lessons learned	Project team, UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc.)	USD 15,000 (average USD 3,000 per year)	Yearly
Audit	UNDP Country Offices, Project team	USD 15,000 (average USD 3,000 per year)	Yearly
TOTAL indicative COST *Excluding project team staff time and UNDP staff and travel expenses*		USD 390,000	

PART V: Legal Context

303. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Indonesia and the United Nations Development Programme, signed by the parties; of the Standard Basic Assistance Agreement between the Government of Timor-Leste and the United Nations Development Programme, signed by the parties; and Standard Basic Assistance Agreement between the Government of Papua New Guinea and the United Nations Development Programme, signed by the parties. The host country-implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

304. The Resident Representative of UNDP Country Office of Indonesia, as Primary Project Representative (PPR) Offices is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP-GEF Regional Coordination Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

    a. Revision of, or addition to, any of the annexes to the Project Document

    b. Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation

    c. Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility, and

    d. Inclusion of additional annexes and attachments only as set out here in this Project Document.

SECTION II: STRATEGIC RESULTS FRAMEWORK (SRF) AND GEF INCREMENT

PART I: Strategic Results Framework

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
Objective: To enhance sustainable development of the Arafura-Timor Seas (ATS) region to protect biodiversity and improve the quality of life of its inhabitants through conservation and sustainable management of marine-coastal ecosystems (as indicated in the SAP).	1. Number of women and men as direct beneficiaries of project activities	0	Cumulative total of direct beneficiaries: 55,000 women 60,000 men	Monitoring reports for field interventions Work plans	Risks : Resource users could be reluctant to participate in project activities. Assumptions: Women participation is assumed consistent with findings of stakeholder consultations and general practice at the project sites.
	2. Globally over-exploited fisheries (by volume) moved to more sustainable levels	0	Up to 25% (by volume) for the ATS region, representing approximately 0.25% of global levels	Monitoring reports Compliance reports Capture fisheries statistics	Risks : There are risks that enabling decisions for regulatory authorities will not be issued timely. Assumptions: The integrated approaches applied under this project will be sustained after project closure.
	3. Landscapes and seascapes under improved biodiversity management.	0	800,000 ha	Ministerial decree	Risks : Enabling decisions are not timely granted; Resource users including communities are reluctant to collaborate;

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
					Impacts of climate change undermine the sustainability of the conservation efforts; Assumptions: Baseline conditions are satisfactorily representative; There is support locally and nationally for designation of new MPAs; The time required to obtain enabling decisions is sufficient;
Component 1: Regional, National and Local Governance for Large Marine Ecosystem Management					
Outcome 1.1: Regional and national mechanisms for cooperation in place and operational	Outputs: 1.1.1 Regional Coordination Committee and a supporting Secretariat created to promote regional level planning, cooperation and monitoring in the implementation of the SAP and NAPs; formal regional cooperation agreement adopted and implemented where feasible 1.1.2 Improved stakeholder participation at the regional and national levels through the establishment of a Stakeholder Partnership Forum for the implementation of the SAP and NAPs (SAP) with representation of local people and women's groups 1.1.3 Improved inter sectoral coordination at the national and local levels in support of the implementation of integrated approaches to NRM, water resources, biodiversity conservation and climate change adaptation, through national inter-ministry committees in Indonesia, Timor-Leste, and Papua New Guinea 1.1.4 Financial mechanisms in place to support the implementation of the SAP and NAPs and the replication and upscaling of demonstration projects				
	4. Regional governance mechanism	Informal cooperation under ATSEF, and conceptualization of ATS governance mechanism outlined in Ministerial Declaration	Regional governance mechanism established and functioning with at least 2 of 4 countries contributing dues	Ministerial Declaration	Risks : Littoral countries cannot reach agreement on structure or financing arrangements for regional governance mechanism; Assumptions: There is political and financing support for establishing and sustaining a reginal governance mechanism;

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
	5. National Inter-Ministerial Committees (NIMCs)	NIMCs loosely formed, with no clear mandate for ATS priority concerns	NIMCs established, functioning and formalized thru legal and/or institutional arrangements in each of the three beneficiary countries	Ministerial Decision	Risks Changes in key policies and/or decision makers lead to reduced support for the NIMCs; Overlapping sectoral mandates or other conflicts Assumptions: Key cross-sectoral stakeholders support and will actively participate in the NIMCs;
	6. SAP implementation finance secured by governments and development partners	0	25%	Sectoral annual work plans Medium term development plans	Risks There is risk that there are changes to key enabling decision makers. Assumptions: NIMC's will be able to facilitate mainstreaming SAP financing.
Outcome 1.2: Strengthened institutional and human resource capacity towards integrated approaches in natural resource management and biodiversity conservation	Outputs: 1.2.1 Harmonization of national and local policy in Indonesia and Timor-Leste to strengthen the regulatory and institutional frameworks in support of SAP/NAP implementation and linkages to NBSAPs through support to national inter-ministerial committees 1.2.2 Localization and translation of guidelines and/or handbook on integrated approaches to marine and coastal management, biodiversity conservation and climate change adaptation in local language by building on existing/completed initiatives; implementation of training of trainers benefitting at least 100 participants in Indonesia; 60 in Timor-Leste, and 10 in Papua New Guinea				
	7. Number of local regulations issued to support implementation of NAP that reflect regional harmonization of national and subnational policies	Priority actions in the NAPs are not mainstreamed in national and local policy and programming frameworks	Indonesia : Draft of three local regulations (PERDA) developed and submitted to the provincial government to support implementation of NAP Timor-Leste : Two local regulations issued to support implementation of NAP	Draft local regulations and policies	Risks : Enabling decisions required for implementing recommended measures are delayed; Assumptions: The time required to obtain enabling decisions is sufficient;

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
			Papua New Guinea: District Sustainable Marine Resource Plan for South Fly District approved		Key stakeholders support integration of NAP priority actions in national and subnational programming and budgetary frameworks;
	8. Knowledge transferred from capacitated trainers to resource beneficiaries	Limited local knowledge on integrated approaches	Indonesia : 100 resource beneficiaries receive training on integrated approaches from the capacitated trainers Timor-Leste: 60 resource beneficiaries receive training on integrated approaches from the capacitated trainers Papua New Guinea : 10 resource beneficiaries receive training on integrated approaches from the capacitated trainers	Training records	Risks : Insufficient capacity to support management changes; Assumptions: Increased awareness and capacity will lead to a change in behavior among key stakeholders involved in coastal and marine resource management and conservation;
Outcome 1.3: Better understanding of climate change impacts on marine and coastal ecosystems lead to regional actions	Outputs: 1.3.1 Improved understanding of climate change impacts on fisheries and marine/coastal ecosystems through reginal collaborative assessment 1.3.2 Case study on climate change impact pathways on an ATS area-specific fishery; regional climate change workshop organized				
	9. Regional climate change predictive capacity strengthened	There are no coordinated regional climate change assessment efforts addressing regional coastal and marine concerns in the ATS region	ATS regional CC guidance toolkit endorsed by RCC	Guidance toolkit Case study Workshop minutes RCC meeting minutes	Risks Baseline conditions and input variables are unreliable, and/or unavailable. Assumptions: Qualified professionals from institutions in each of the 4 ATS littoral countries agree to collaborate on a regional CC assessment.
Outcome 1.4: Updated transboundary diagnostic analysis	Outputs: 1.4.1 Updated ATS transboundary diagnostic analysis (TDA) endorsed by the ATS Regional Coordination Committee 1.4.2 Updated SAP, incorporating improved understanding of climate change impacts, supported by Ministerial Declaration; NAPs updated or formulated accordingly				

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
(TDA), strategic action program (SAP), and national action program (NAPs)	1.4.3 National responses to the priority actions agreed upon in the updated SAP are formulated into national action programs and mainstreamed into national planning and budgetary frameworks				
	10. Proportion of countries that are implementing specific measures from the SAP (i.e. adopted national policies, laws, budgeted plans)	0	Indonesia: Priority actions under ATS NAP mainstreamed into national development programs and budgets Timor-Leste: Priority actions under ATS NAP mainstreamed into national development programs and budgets Papua New Guinea: Priority actions under ATS NAP mainstreamed into national development programs and budgets	National and subnational development programming and budgetary frameworks	Risks: Changes in key policies and/or decision makers lead to reduced support for mainstreaming the NAPs; Overlapping sectoral mandates or other conflicts; Assumptions: Governmental stakeholders appreciate the benefit of mainstreaming the NAP into development programming and budgetary frameworks;
Component 2: Improving LME Carrying Capacity to Sustain Provisioning, Regulating and Supporting Ecosystem Services					
Outcome 2.1: Improved management of fisheries and other coastal resources for livelihoods, nutrition and ecosystem health in Indonesia, Timor-Leste, and Papua New Guinea	2.1.1 Ecosystem approach to fisheries management (EAFM) targeting women and men fishers implemented at the LME level for shared stocks and in area-specific fisheries 2.1.2 Development of profiles of 3 fisheries in the ATSEA, value-chain analysis and preassessment to move selected fisheries towards certification/eco-labelling 2.1.3 Regional and national actions strengthened in support of the Regional Plan of Action for Responsible Fishing Practices Including Combating IUU Fishing in the Region and the Indonesian Presidential Task Force on Combating Illegal Fishing, e.g., through better surveillance, enforcement and monitoring, resulting in a further reduction of IUU fishing in the ATS by 10%, around 150,000 tons				
	11. Number of management plans and appropriate measures implemented for rebuilding or protecting fish stocks including alternative management approaches	0	5	Endorsed EAFM plans Approved FIPs	Risks : Insufficient capacity to support management changes; Insufficient coordination leads to delays; Enabling decisions are not timely granted; Impacts of climate change undermine the sustainability of

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
					implementation of the EAFM plan; Assumptions: □ The time required to obtain enabling decisions is sufficient; □ Existing legal and regulatory frameworks accommodate implementation of EAFM;
	12. Number of targeted communities of fishers have adopted an ecosystem approach to fisheries management	□ 0	□ 5	□ Endorsed EAFM plans □ Approved FIPs	Risks : □ Insufficient coordination leads to delays; □ Enabling decisions are not timely granted; □ Resource users are reluctant to collaborate; Assumptions: □ The time required to obtain enabling decisions is sufficient; □ The fishing community and other private sector actors are willing to participate in the project activities and appreciate the long-term benefits of more responsible resource use over short-term impacts; □ Technological and market-based solutions that create economic incentives for applying integrated approaches are available and feasible to implement in project areas;

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
	13. Reduced fishing pressure	Aru, Indonesia: Approx. 775 registered fishing vessels in Aru operating in the red snapper and shrimp fisheries (combined). South Fly, PNG: 2 tons per year dried fish maw (bladder) produced.	Aru, Indonesia: 25% reduction in fleet size within the shrimp and red snapper fisheries. South Fly, PNG: 1 ton per year dried fish maw (bladder) produced.	Records kept by fishing ports, to be validated or updated during implementation Available compliance records Monitoring reports	Risks: Insufficient coordination leads to delays; Resource users are reluctant to collaborate; Assumptions: The fishing community and other private sector actors are willing to participate in the project activities and appreciate the long-term benefits of more responsible resource use over short-term impacts; Technological and market-based solutions that create economic incentives for applying integrated approaches are available and feasible to implement in project areas;
	14. Improved use of fish gear/techniques	Aru, Indonesia: Approx. 775 registered fishing vessels in Aru operating in the shrimp and red snapper fisheries; 775 vessels (<30 GT) which do not have VMS; 1400 vessels using gillnet gear. Merauke, Indonesia: Approx. 500 registered fishing vessels operating in the barramundi fishery in Merauke. South Coast, Timor-Leste: Approx. 150	Aru, Indonesia: 50% of vessels within the shrimp and red snapper fisheries using improved gear; 50% vessels using VMS; 25% vessels applying improved gear to reduce turtle bycatch. Merauke, Indonesia: 50% barramundi fishers using improved gear. South Coast, Timor-Leste: 50% vessels within the mackerel fishery using improved gear/techniques.	Records kept by fishing ports, to be validated or updated during implementation Available compliance records Monitoring reports	Risks: Insufficient coordination leads to delays; Resource users are reluctant to collaborate; Assumptions: The fishing community and other private sector actors are willing to participate in the project activities and appreciate the long-term benefits of more responsible resource use over short-term impacts;

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
		registered vessels in the south coast municipalities. South Fly, PNG: Approx. 2700 households involved in small-scale fishing	South Fly: PNG: 25% artisanal fishers using improved gear/techniques.		Technological and market-based solutions that create economic incentives for applying integrated approaches are available and feasible to implement in project areas;
Outcome 2.2: Reduced marine pollution improves ecosystem health in coastal/ marine hotspots in the Arafura and Timor Seas	Outputs: 2.2.1 Enhanced data and information regarding the sources and sinks of contaminants in the ATS; pollution hotspots identified; appropriate controls of point and non-point sources of pollution initiated oil spill early warning systems and capacities strengthened				
	15. Strengthened oil spill oil response systems and capacities	Oil and gas development is expanding in the ATS region, but local communities lack awareness and capacity to respond to marine pollution incidents	Oil spill early response systems and procedures are included in the ICM plans of Rote Ndao in Indonesia and Município Manatuto in Timor-Leste	Approved ICM plans	Risks : Early warning systems are not operationalized; Assumptions: Local government units are committed to provide required resources to operationalize oil spill response systems;
Outcome 2.3: Coastal and Marine Biodiversity Conserved through Protection of Habitats and Species	Outputs: 2.3.1 Updated information and database on coral, mangrove and seagrass beds in the ATS, supported by ecosystem valuation studies; priority conservation areas identified in Indonesia and Timor-Leste 2.3.2 New MPAs designated in Indonesia and Timor-Leste; covering about 645,000 ha in area, including approximately 220,000 ha of mangrove ecosystems; with corresponding management plans prepared and implemented; and regional ATS MPA network designed 2.3.3 Endangered marine turtles protected through an agreed regional action plan				
	16. Protected area management effectiveness score	Indonesia: Southeast Aru MPA METT: 39 Timor-Leste: NKS NP METT: 24	Indonesia: Southeast Aru MPA METT: 92 Timor-Leste: NKS NP METT: 50	METT score	Risks : MPA management authorities are reluctant to collaborate; Insufficient capacity to support management changes;

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
					Delays caused by lack of sufficient or timely cofinancing support; Assumptions: Baseline conditions are satisfactorily representative; There is political and financial commitment for improving management effectiveness;
	17. Number of threatened species under enhanced protection	0	1 (marine turtles)	Endorsed regional action plan	Risks : Littoral countries cannot reach agreement on coverage and/or management arrangements of the proposed action plan; Assumptions: There is consensus among the 4 littoral countries to develop and implement a regional action plan to enhance protection of marine turtles; Existing legal and regulatory frameworks accommodate such an action plan;
Outcome 2.4: Integrated Coastal Management, incorporating climate change adaptation considerations, implemented at the local level towards more sustainable use and	Outputs: 2.4.1 Integrated coastal management plans (ICM) that support SAP/NAP implementation developed and implemented through formulation and enactment of local regulations 2.4.2 Climate change adaptation incorporated in ICM plans and demonstrations implemented for one at-risk coastal site in Timor-Leste 2.4.3 Climate Change adaptation, with a particular focus on ecosystem-based adaptation, incorporated in ICM plans and demonstrations implemented for two at-risk coastal sites in Indonesia				
	18. Adoption and implementation of ICM plans and reforms to protect coastal zones in LMEs – Number of beneficiary	No coastal areas are currently under ICM; Timor-Leste is currently	2	Local decisions	Risks : Enabling decisions are not timely granted;

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
conservation of ecosystem goods and services	countries adopting and applying ICM within ATS region	preparing ICM plans with support of PEMSEA			Resource users including communities are reluctant to collaborate; Weak coordination of project activities; Assumptions: Baseline conditions are satisfactorily representative; There is political and financial commitment for developing and implementing ICM; The time required to obtain enabling decisions is sufficient;
	19. Number of women and men supported with alternative likelihoods that contribute to improved management of natural resources and increased resilience of their local communities with respect to the impacts of climate change	0	Total: 1500, including 850 women and 650 men	Field surveys, monitoring reports	Risks : Insufficient management capacity. Cultural and/or customary barriers restrictive. Assumptions: Women at project sites actively participate
Component 3: Knowledge management					
Outcome 3.1: Improved monitoring of the status of the ATS and dissemination of information	Outputs: 3.1.1 A set of holistic (SMART) indicators established by applying the GEF Process, Stress Reduction and Environmental/Socioeconomic Status framework to monitor ocean health, SAP and NAP implementation; indicators used for progress evaluation, SAP and TDA updating and priority setting 3.1.2 Improved dissemination of information and best practices through formulation and implementation of a communications str ategy, including but not limited to an enhanced ATSEA project website, bulletins, publications and videos in English and national languages, and contributions to IW:LEARN activities allocating 1% of the project grant.				
	20. Mechanism in place to produce a monitoring report on stress reduction measures	There are some indicators included in the ATS SAP, but there is no unified	Monitoring mechanisms in place for some of the project related indicators	RCC memorandum Monitoring reports	Risks : The littoral countries cannot reach agreement on financing SAP

Objective/ Outcome	Key Indicator(s)	Baseline	End of Project target	Source of Information	Risks and assumptions
		monitoring and reporting system			implementation, including monitoring and reporting; Assumptions: Enabling stakeholders are committed to support monitoring and reporting on SAP implementation;
	21. Dissemination of project results and ATS information	Since the end of the first phase of the ATSEA program, there has been limited dissemination of SAP/NAP implementation	Participation in one GEF IW Conference; submission of at least one Results and one Experience Note; and integration of ATS knowledge management onto the existing CTI knowledge management platform	Meeting minutes Content on IW:Learn Information on CTI website and other knowledge platforms	Risks : Insufficient collaboration with other projects and initiatives; Assumptions : Proactive collaboration with other projects and initiatives will be maintained throughout the project.

Part II: Incremental Cost Analysis

Global Environmental Objectives

305. The ATS region is a repository of globally significant marine biodiversity, and containing some of the most pristine and highly threatened coastal and marine ecosystems. The ATS habitats are also critical for supporting migratory, rare, threatened, and endangered marine species, such as nesting colonies of shorebirds and seabirds, cetaceans, dugongs, sharks and rays, turtles and sea snakes. The marine environment in the ATS region is in serious decline, primarily as a result of over-harvesting and other direct and indirect impacts of anthropogenic stresses and global climatic changes. Modification of coastal habitats has resulted in major changes in population structure as well as functional group composition, notably on coral reefs, and massive changes in ecosystem services of coral reefs, seagrass beds, and mangroves. The project aims to counter these threats by catalyzing improved regional collaboration in safeguarding habitats and sensitive ecosystems from pressures linked to unsustainable fisheries activities, fragmentation from physical development, and increasing impacts and uncertainties associated with climate change.

Baseline Scenario

306. A total investment of USD 60,065,522 will be provided by different national stakeholders over the next five years to address the principal threats the ATS coastal and marine resources. Under the baseline scenario, defined as business as usual, a number of significant interventions will be financed to improve fisheries management, biodiversity conservation, and coastal zone development by the four ATS littoral countries. While these activities provide an important foundation in which this project is built upon, the business as usual scenario is insufficient to ensure the globally significant biodiversity is secured. With respect to fisheries, each national government has separate legislation and differing objectives, with common ambitions of ensuring that exploitation of transboundary fisheries resources is managed in a manner consistent with the principles of ecologically sustainable development. Furthermore, the existing regional governance structures tend not to extend to coastal fisheries, which support the livelihoods of thousands of inhabitants among local ATS communities. As coastal fisheries are mostly under the jurisdiction of subnational and traditional authorities, there are a number of opportunities for exchanging best practices and reaching local cross-border agreements on shared resources.

Alternative Strategy

307. The GEF alternative supports the establishment of a regional governance mechanism that strengthens the enabling policies and capacities of institutions and individuals resulting in a sustained transboundary response to over-exploited fisheries and increased pressures on the globally significant biodiversity in the ATS region, including the impacts of climate change. This alternative strategy leverages regional and international best practice in implementation of integrated approaches, aimed at incentivizing local communities to more sustainably use coastal and marine resources, enhancing their own livelihoods while safeguarding the ecosystem goods and services that are the backbone of their socio-economic well-being. The total cost of the alternative is USD 70,345,407, exclusive of preparatory assistance, for which GEF assistance of USD 10,279,885 is requested to fund the incremental cost. The GEF has invested USD 300,000 million in preparatory assistance.

SECTION III: TOTAL BUDGET AND WORKPLAN

REGIONAL & PNG Cost Breakdown by Component

Award ID:	00111335	**Project ID:**	00110412
Award Title:	Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2) (Regional & PNG components)		
Business Unit:	IDN 10		
Project Title:	Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2) (Regional & PNG components)		
PIMS no.	5439		
Implementing Partners (Executing Agencies)	PEMSEA		

SUMMARY-ALL REGIONAL COMPONENTS (excluding PNG component)

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budget Note
REGIONAL COST BREAKDOWN-ALL COMPONENTS	PEMSEA	62000	GEF	71200	International Consultants	0	53,000	176,250	92,750	89,750	**411,750**	
				71300	Local Consultants	35,820	71,800	32,560	78,760	36,040	**254,980**	
				71400	Cont services Individuals	316,688	316,688	191,042	191,042	185,098	**1,200,558**	
				71600	Travel	47,820	35,895	45,895	35,895	35,895	**201,400**	
				72100	Cont Services Company	56,597	463,600	349,677	278,623	93,600	**1,242,097**	
				72200	Equip and Furniture	0	0	0	0	0	**-**	
				72400	Comms, audio-visual	6,000	0	0	0	0	**6,000**	
				72500	Supplies, stationery	3,000	3,000	3,000	3,000	3,000	**15,000**	
				72800	Info Tech Equip	11,730	0	0	0	0	**11,730**	
				73400	Rental & Maint of other Equip	19,590	18,000	18,000	18,000	18,000	**91,590**	
				74200	Audio Visual&Print Prod	1,250	18,000	23,000	33,250	26,250	**101,750**	
				74596	Services to projects-GOE for CO	4,084	4,084	4,084	4,084	4,084	**20,421**	
				75700	Training, Workshops	8,427	82,680	97,467	133,242	36,570	**358,386**	
					Total Regional components (exc. PNG component)	**511,007**	**1,066,747**	**940,976**	**868,646**	**528,287**	**3,915,662**	

SUMMARY ALL PNG COMPONENTS												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
PAPUA NEW GUINEA -ALL COMPONENTS	PEMSEA	62000	GEF	71200	International Consultants	0	0	0	0	0	-	
				71300	Local Consultants	6,150	18,800	42,950	2,650	2,650	**73,200**	
				71400	Cont services Individuals	32,434	32,434	32,434	32,434	32,434	**162,170**	
				71600	Travel	2,785	2,785	2,785	2,785	2,785	**13,925**	
				72100	Cont Services Company	0	125,020	10,000	91,300	0	**226,320**	
				72200	Equip and Furniture	0	0	0	0	0	-	
				72400	Comms, audio-visual	0	0	0	0	0	-	
				72500	Supplies, stationery	1,080	1,080	1,080	1,080	1,080	**5,400**	
				72800	Info Tech Equip	5,500	0	0	0	0	**5,500**	
				73400	Rental & Maint of other Equip	600	600	600	600	600	**3,000**	
				74200	Audio Visual&Print Prod	350	2,350	2,850	8,350	350	**14,250**	
				74596	Services to projects-GOE for CO	0	0	0	0	0	-	
				75700	Training, Workshops	0	0	22,260	3,975	0	**26,235**	
				Subtotal, Papua New Guinea All Components		**48,899**	**183,069**	**114,959**	**143,174**	**39,899**	**530,000**	

REGIONAL COMPONENT 1												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
REGIONAL COMPONENT 1	PEMSEA	62000	GEF	71200	International Consultants	0	0	39,750	39,750	13,250	**92,750**	80
				71300	Local Consultants	14,840	24,840	14,840	29,840	14,840	**99,200**	81
				71400	Cont services Individuals	91,398	91,398	70,457	70,457	68,971	**392,683**	82
				71600	Travel	28,620	16,695	16,695	16,695	16,695	**95,400**	83
				72100	Cont Services Company	21,496	85,000	85,000	80,001	0	**271,496**	84
				72200	Equip and Furniture	0	0	0	0	0	-	
				72400	Comms, audio-visual	0	0	0	0	0	-	

				72500	Supplies, stationery	0	0	0	0	0	-	
				72800	Info Tech Equip	6,230	0	0	0	0	**6,230**	85
				73400	Rental & Maint of other Equip	1,590	0	0	0	0	**1,590**	86
				74200	Audio Visual&Print Prod	1,000	6,500	7,500	7,000	500	**22,500**	87
				74596	Services to projects-GOE for CO	0	0	0	0	0	-	
				75700	Training, Workshops	795	11,130	40,545	80,295	11,130	**143,895**	88
				Subtotal Component 1 Regional		**165,970**	**235,563**	**274,787**	**324,038**	**125,386**	**1,125,745**	
PNG COMPONENT 1												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
PAPUA NEW GINEA- COMPONENT 1	PEMSEA	62000	GEF	71200	International Consultants	0	0	0	0	0	-	
				71300	Local Consultants	6,150	8,800	40,300	0	0	**55,250**	61
				71400	Cont services Individuals	18,920	18,920	18,920	18,920	18,920	**94,599**	62
				71600	Travel	2,385	2,385	2,385	2,385	2,385	**11,925**	63
				72100	Cont Services Company	0	120,020	0	0	0	**120,020**	64
				72200	Equip and Furniture	0	0	0	0	0	-	
				72400	Comms, audio-visual	0	0	0	0	0	-	
				72500	Supplies, stationery	540	540	540	540	540	**2,700**	65
				72800	Info Tech Equip	1,500	0	0	0	0	**1,500**	66
				73400	Rental & Maint of other Equip	0	0	0	0	0	-	
				74200	Audio Visual&Print Prod	350	2,350	2,350	8,350	350	**13,750**	67
				74596	Services to projects-GOE for CO	0	0	0	0	0	-	
				75700	Training, Workshops	0	0	12,985	3,975	0	**16,960**	68
				Subtotal, COMPONENT 1 PNG		**29,845**	**153,015**	**77,480**	**34,170**	**22,195**	**316,704**	
Subtotal ALL Regional Component 1						**195,815**	**388,578**	**352,267**	**358,208**	**147,581**	**1,442,449**	
REGIONAL COMPONENT 2												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**

REGIONAL COMPONENT 2	PEMSEA	62000	GEF	71200	International Consultants	0	39,750	86,500	39,750	13,250	**179,250**	89
				71300	Local Consultants	16,740	42,720	13,480	12,720	0	**85,660**	90
				71400	Cont services Individuals	188,710	188,710	94,475	94,475	90,017	**656,387**	91
				71600	Travel	9,000	9,000	19,000	9,000	9,000	**55,000**	92
				72100	Cont Services Company	24,505	370,000	256,077	140,000	40,000	**830,582**	93
				72200	Equip and Furniture	0	0	0	0	0	**-**	
				72400	Comms, audio-visual	0	0	0	0	0	**-**	
				72500	Supplies, stationery	600	600	600	600	600	**3,000**	94
				72800	Info Tech Equip	3,000	0	0	0	0	**3,000**	94
				73400	Rental & Maint of other Equip	0	0	0	0	0	**-**	
				74200	Audio Visual&Print Prod	250	1,500	500	1,250	750	**4,250**	96
				74596	Services to projects-GOE for CO	0	0	0	0	0	**-**	
				75700	Training, Workshops	0	58,830	49,290	32,595	12,720	**153,435**	97
					Subtotal Component 2 Regional	**242,805**	**711,110**	**519,923**	**330,390**	**166,337**	**1,970,565**	
PNG COMPONENT 2												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
PAPUA NEW GINEA-COMPONENT 2	PEMSEA	62000	GEF	71200	International Consultants	0	0	0	0	0	**-**	
				71300	Local Consultants	0	10,000	2,650	2,650	2,650	**17,950**	69
				71400	Cont services Individuals	10,269	10,269	10,269	10,269	10,269	**51,347**	70
				71600	Travel	400	400	400	400	400	**2,000**	71
				72100	Cont Services Company	0	5,000	10,000	91,300	0	**106,300**	72
				72200	Equip and Furniture	0	0	0	0	0	**-**	
				72400	Comms, audio-visual	0	0	0	0	0	**-**	
				72500	Supplies, stationery	300	300	300	300	300	**1,500**	73
				72800	Info Tech Equip	4,000	0	0	0	0	**4,000**	74
				73400	Rental & Maint of other Equip	0	0	0	0	0	**-**	
				74200	Audio Visual&Print Prod	0	0	500	0	0	**500**	75
				74596	Services to projects-GOE for CO	0	0	0	0	0	**-**	
				75700	Training, Workshops	0	0	9,275	0	0	**9,275**	76

					Subtotal, PNG COMPONENT 2	**14,969**	**25,969**	**33,394**	**104,919**	**13,619**	**192,872**	
					Subtotal ALL Regional Component 2	**257,774**	**737,079**	**553,317**	**435,309**	**179,956**	**2,163,437**	
REGIONAL COMPONENT 3												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
REGIONAL COMPONENT3 (No national activities allocated under this outcome)	PEMSEA	62000	GEF	71200	International Consultants	0	13,250	0	13,250	13,250	**39,750**	98
				71300	Local Consultants	4,240	4,240	4,240	36,200	21,200	**70,120**	99
				71400	Cont services Individuals	23,136	23,136	12,666	12,666	12,666	**84,270**	100
				71600	Travel	7,947	7,500	7,500	7,500	7,500	**37,947**	101
				72100	Cont Services Company	0	0	0	50,022	45,000	**95,022**	102
				72200	Equip and Furniture	0	0	0	0	0	-	
				72400	Comms, audio-visual	4,500	0	0	0	0	**4,500**	103
				72500	Supplies, stationery	0	0	0	0	0	-	
				72800	Info Tech Equip	0	0	0	0	0	-	
				73400	Rental & Maint of other Equip	0	0	0	0	0	-	
				74200	Audio Visual&Print Prod	0	10,000	15,000	25,000	25,000	**75,000**	104
				74596	Services to projects-GOE for CO	0	0	0	0	0	-	
				75700	Training, Workshops	7,632	12,720	7,632	20,352	12,720	**61,056**	105
					Subtotal All Component 3 Regional	**47,455**	**70,846**	**47,038**	**164,990**	**137,336**	**467,665**	
REGIOANL PROJECT MANAGEMENT												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
REGIONAL PROJECT MANAGEMENT	PEMSEA	62000	GEF	71200	International Consultants	0	0	50,000	0	50,000	**100,000**	106
				71300	Local Consultants	0	0	0	0	0	-	
				71400	Cont services Individuals	13,443	13,443	13,443	13,443	13,443	**67,217**	107
				71600	Travel	3,053	2,500	2,500	2,500	2,500	**13,053**	108
				72100	Cont Services Company	10,596	8,600	8,600	8,600	8,600	**44,996**	109
				72200	Equip and Furniture	0	0	0	0	0	-	
				72400	Comms, audio-visual	1,500	0	0	0	0	**1,500**	110
				72500	Supplies, stationery	2,400	2,400	2,400	2,400	2,400	**12,000**	111

				72800	Info Tech Equip	2,500	0	0	0	0	**2,500**	112
				73400	Rental & Maint of other Equip	18,000	18,000	18,000	18,000	18,000	**90,000**	113
				74200	Audio Visual&Print Prod	0	0	0	0	0	**-**	
				74596	Services to projects-GOE for CO	4,084	4,084	4,084	4,084	4,084	**20,421**	114
				75700	Training, Workshops	0	0	0	0	0	**-**	
				Subtotal Regional Project Management		**55,577**	**49,028**	**99,028**	**49,028**	**99,028**	**351,687**	
PNG PROJECT MANAGEMENT												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
PAPUA NEW GINEA-PROJECT MANAGEMENT	PEMSEA	62000	GEF	71200	International Consultants	0	0	0	0	0	**-**	
				71300	Local Consultants	0	0	0	0	0	**-**	
				71400	Cont services Individuals	3,245	3,245	3,245	3,245	3,245	**16,224**	77
				71600	Travel	0	0	0	0	0	**-**	
				72100	Cont Services Company	0	0	0	0	0	**-**	
				72200	Equip and Furniture	0	0	0	0	0	**-**	
				72400	Comms, audio-visual	0	0	0	0	0	**-**	
				72500	Supplies, stationery	240	240	240	240	240	**1,200**	78
				72800	Info Tech Equip	0	0	0	0	0	**-**	
				73400	Rental & Maint of other Equip	600	600	600	600	600	**3,000**	79
				74200	Audio Visual&Print Prod	0	0	0	0	0	**-**	
				74596	Services to projects-GOE for CO	0	0	0	0	0	**-**	
				75700	Training, Workshops	0	0	0	0	0	**-**	
				Subtotal Project Mgnt PNG		**4,085**	**4,085**	**4,085**	**4,085**	**4,085**	**20,424**	
Subtotal ALL Proj Mgnt						**59,662**	**53,113**	**103,113**	**53,113**	**103,113**	**372,111**	
Total ALL Regional Components						**560,706**	**1,249,616**	**1,055,735**	**1,011,620**	**567,986**	**4,445,662**	

INDONESIA NATIONAL COMPONENT

Award ID:	00096036	**Project ID:**	00100050
Award Title:	Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2) (Indonesia national component)		
Business Unit:	IDN 10		
Project Title:	Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2) (Indonesia national component)		
PIMS no.	5439		
Implementing Partners (Executing Agencies)	Indonesia MMAF		

SUMMARY-ALL COMPONENTS

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budget Note
INDONESIA ALL COMPONENTS	UNDP / MMAF	62000	GEF	71200	International Consultants	13,250	13,250	13,250	13,250	0	**53,000**	
				71300	Local Consultants	65,280	107,400	69,520	75,880	52,400	**370,480**	
				71400	Cont services Individuals	48,644	93,764	93,764	93,764	93,764	**423,699**	
				71600	Travel	4,905	13,905	13,905	13,905	13,905	**60,525**	
				72100	Cont Services Company	35,000	339,596	563,460	670,272	355,000	**1,963,328**	
				72200	Equip and Furniture	10,000	0	0	0	0	**10,000**	
				72400	Comms, audio-visual	5,000	0	0	0	0	**5,000**	
				72500	Supplies, stationery	2,400	2,400	2,400	2,400	2,400	**12,000**	
				72800	Info Tech Equip	9,000	0	0	0	0	**9,000**	
				73400	Rental & Maint of other Equip	6,180	6,180	6,180	6,180	6,180	**30,900**	
				74200	Audio Visual&Print Prod	3,250	4,000	8,250	500	4,750	**20,750**	
				74596	Services to projects-GOE for CO	2,182	2,182	2,182	2,182	2,182	**10,908**	
				75700	Training, Workshops	10,335	86,125	96,460	7,155	10,335	**210,410**	
				Total Indonesia All Components		**215,425**	**668,801**	**869,371**	**885,487**	**540,915**	**3,180,000**	

INDONESIA NATIONAL COMPONENT 1												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
INDONESIA COMPONENT 1	UNDP / MMAF	62000	GEF	71200	International Consultants	0	0	0	0	0	-	
				71300	Local Consultants	18,480	18,480	8,480	31,960	8,480	**85,880**	14
				71400	Cont services Individuals	14,188	14,188	14,188	14,188	14,188	**70,939**	15
				71600	Travel	3,180	3,180	3,180	3,180	3,180	**15,900**	16
				72100	Cont Services Company	0	10,000	10,000	0	0	**20,000**	17
				72200	Equip and Furniture	0	0	0	0	0	-	
				72400	Comms, audio-visual	0	0	0	0	0	-	
				72500	Supplies, stationery	300	300	300	300	300	**1,500**	18
				72800	Info Tech Equip	0	0	0	0	0	-	
				73400	Rental & Maint of other Equip	3,180	3,180	3,180	3,180	3,180	**15,900**	19
				74200	Audio Visual&Print Prod	500	2,500	2,500	500	500	**6,500**	20
				74596	Services to projects-GOE for CO	0	0	0	0	0	-	
				75700	Training, Workshops	0	60,950	60,950	7,155	0	**129,055**	21
				Subtotal Component 1 Indonesia		**39,828**	**112,778**	**102,778**	**60,463**	**29,828**	**345,674**	

INDONESIA NATIONAL COMPONENT 2												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
INDONESIA COMPONENT 2	UNDP / MMAF	62000	GEF	71200	International Consultants	13,250	13,250	13,250	13,250	0	**53,000**	22
				71300	Local Consultants	46,800	88,920	61,040	43,920	43,920	**284,600**	23
				71400	Cont services Individuals	30,402	75,522	75,522	75,522	75,522	**332,492**	24
				71600	Travel	1,725	10,725	10,725	10,725	10,725	**44,625**	25
				72100	Cont Services Company	35,000	329,596	553,460	670,272	355,000	**1,943,328**	26
				72200	Equip and Furniture	10,000	0	0	0	0	**10,000**	27
				72400	Comms, audio-visual	5,000	0	0	0	0	**5,000**	28
				72500	Supplies, stationery	1,500	1,500	1,500	1,500	1,500	**7,500**	29
				72800	Info Tech Equip	9,000	0	0	0	0	**9,000**	30
				73400	Rental & Maint of other Equip	0	0	0	0	0	-	

				74200	Audio Visual&Print Prod	2,750	1,500	5,750	0	4,250	**14,250**	31
				74596	Services to projects-GOE for CO	0	0	0	0	0	-	
				75700	Training, Workshops	10,335	25,175	35,510	0	10,335	**81,355**	32
				Subtotal Component 2,Indonesia		**165,762**	**546,188**	**756,758**	**815,189**	**501,252**	**2,785,150**	
INDONESIA NATIONAL PROJECT MANAGEMENT												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
INDONESIA PROJECT MANAGEMENT	UNDP / MMAF	62000	GEF	71200	International Consultants	0	0	0	0	0	-	
				71300	Local Consultants	0	0	0	0	0	-	
				71400	Cont services Individuals	4,054	4,054	4,054	4,054	4,054	**20,268**	33
				71600	Travel	0	0	0	0	0	-	
				72100	Cont Services Company	0	0	0	0	0	-	
				72200	Equip and Furniture	0	0	0	0	0	-	
				72400	Comms, audio-visual	0	0	0	0	0	-	
				72500	Supplies, stationery	600	600	600	600	600	**3,000**	34
				72800	Info Tech Equip	0	0	0	0	0	-	
				73400	Rental & Maint of other Equip	3,000	3,000	3,000	3,000	3,000	**15,000**	35
				74200	Audio Visual&Print Prod	0	0	0	0	0	-	
				74596	Services to projects-GOE for CO	2,182	2,182	2,182	2,182	2,182	**10,908**	36
				75700	Training, Workshops	0	0	0	0	0	-	
					Subtotal Indonesia Project Management	**9,835**	**9,835**	**9,835**	**9,835**	**9,835**	**49,176**	
					Total ALL Indonesia National Components	**215,425**	**668,801**	**869,371**	**885,487**	**540,915**	**3,180,000**	

TIMOR-LESTE NATIONAL

Award ID:	00111339	**Project ID:**	00110428
Award Title:	Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2) (Timor-Leste component)		
Business Unit:	TLS 10		
Project Title:	Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2) (Timor-Leste component)		
PIMS no.	5439		
Implementing Partners (Executing Agencies)	Timor-Leste MAF		

SUMMARY-ALL COMPONENTS

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budget Note
TIMOR LESTE-ALL COMPONENTS	UNDP / MAF	62000	GEF	71200	International Consultants	13,250	79,500	79,500	0	0	**172,250**	
				71300	Local Consultants	53,840	116,295	93,970	103,175	53,990	**421,270**	
				71400	Cont services Individuals	38,938	67,662	67,662	67,662	67,662	**309,586**	
				71600	Travel	4,180	7,180	7,180	7,180	7,180	**32,900**	
				72100	Cont Services Company	10,000	135,000	250,540	366,500	200,259	**962,299**	
				72200	Equip and Furniture	10,000	0	0	0	0	**10,000**	
				72400	Comms, audio-visual	3,000	0	0	0	0	**3,000**	
				72500	Supplies, stationery	2,340	2,340	2,340	2,340	2,340	**11,700**	
				72800	Info Tech Equip	7,000	0	0	0	0	**7,000**	
				73400	Rental & Maint of other Equip	5,580	5,580	5,580	5,580	5,580	**27,900**	
				74200	Audio Visual&Print Prod	4,750	3,000	6,250	2,000	3,250	**19,250**	
				74596	Services to projects-GOE for CO	1,836	1,836	1,836	1,836	1,836	**9,180**	
				75700	Training, Workshops	9,840	35,775	72,645	5,565	9,840	**133,665**	
					Subtotal, Timor-Leste All Components	**164,554**	**454,168**	**587,503**	**561,838**	**351,937**	**2,120,000**	

TIMOR-LESTE NATIONAL COMPONENT1

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budget Note
TIMOR LESTE-				71200	International Consultants	0	0	0	0	0	-	
COMPONENT 1	UNDP / MAF			71300	Local Consultants	20,600	20,600	10,600	26,925	10,600	**89,325**	37

		62000	GEF	71400	Cont services Individuals	9,734	9,734	9,734	9,734	9,734	**48,672**	38
				71600	Travel	3,180	3,180	3,180	3,180	3,180	**15,900**	39
				72100	Cont Services Company	0	10,000	10,000	0	0	**20,000**	40
				72200	Equip and Furniture	0	0	0	0	0	**-**	
				72400	Comms, audio-visual	0	0	0	0	0	-	
				72500	Supplies, stationery	900	900	900	900	900	**4,500**	41
				72800	Info Tech Equip	2,500	0	0	0	0	**2,500**	42
				73400	Rental & Maint of other Equip	3,180	3,180	3,180	3,180	3,180	**15,900**	43
				74200	Audio Visual&Print Prod	2,000	3,000	3,000	2,000	500	**10,500**	44
				74596	Services to projects-GOE for CO	0	0	0	0	0	-	
				75700	Training, Workshops	0	35,775	35,775	5,565	0	**77,115**	45
				Subtotal Component 1, Timor-Leste		**42,094**	**86,369**	**76,369**	**51,484**	**28,094**	**284,412**	
TIMOR-LESTE NATIONAL COMPONENT 2												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
TIMOR LESTE-COMPONENT 2	UNDP / MAF	62000	GEF	71200	International Consultants	13,250	79,500	79,500	0	0	**172,250**	46
				71300	Local Consultants	33,240	95,695	83,370	76,250	43,390	**331,945**	47
				71400	Cont services Individuals	25,958	54,683	54,683	54,683	54,683	**244,691**	48
				71600	Travel	1,000	4,000	4,000	4,000	4,000	**17,000**	49
				72100	Cont Services Company	10,000	125,000	240,540	366,500	200,259	**942,299**	50
				72200	Equip and Furniture	10,000	0	0	0	0	**10,000**	51
				72400	Comms, audio-visual	3,000	0	0	0	0	**3,000**	52
				72500	Supplies, stationery	1,140	1,140	1,140	1,140	1,140	**5,700**	53
				72800	Info Tech Equip	4,500	0	0	0	0	**4,500**	54
				73400	Rental & Maint of other Equip	0	0	0	0	0	-	
				74200	Audio Visual&Print Prod	2,750	0	3,250	0	2,750	**8,750**	55
				74596	Services to projects-GOE for CO	0	0	0	0	0	-	
				75700	Training, Workshops	9,840	0	36,870	0	9,840	**56,550**	56
				Subtotal Component 2, TIMOR LESTE		**114,678**	**360,018**	**503,353**	**502,573**	**316,062**	**1,796,684**	

TIMOR-LESTE NATIONAL PROJECT MANAGEMENT												
GEF Outcome/Atlas Activity	**Responsible Party/ Implementing Agent**	**Fund ID**	**Donor Name**	**Atlas Account Code**	**ATLAS Budget Description**	**Amount Year 1 (USD)**	**Amount Year 2 (USD)**	**Amount Year 3 (USD)**	**Amount Year 4 (USD)**	**Amount Year 5 (USD)**	**Total (USD)**	**Budget Note**
TIMOR LESTE PROJECT MANAGEMENT	UNDP / MAF	62000	GEF	71200	International Consultants	0	0	0	0	0	-	
				71300	Local Consultants	0	0	0	0	0	-	
				71400	Cont services Individuals	3,245	3,245	3,245	3,245	3,245	**16,224**	57
				71600	Travel	0	0	0	0	0	-	
				72100	Cont Services Company	0	0	0	0	0	-	
				72200	Equip and Furniture	0	0	0	0	0	-	
				72400	Comms, audio-visual	0	0	0	0	0	-	
				72500	Supplies, stationery	300	300	300	300	300	**1,500**	58
				72800	Info Tech Equip	0	0	0	0	0	-	
				73400	Rental & Maint of other Equip	2,400	2,400	2,400	2,400	2,400	**12,000**	59
				74200	Audio Visual&Print Prod	0	0	0	0	0	-	
				74596	Services to projects-GOE for CO	1,836	1,836	1,836	1,836	1,836	**9,180**	60
				75700	Training, Workshops	0	0	0	0	0	-	
				Subtotal Project Mgnt, TIMOR LESTE		**7,781**	**7,781**	**7,781**	**7,781**	**7,781**	**38,904**	
			Total ALL Timor -Leste National Components			**164,554**	**454,168**	**587,503**	**561,838**	**351,937**	**2,120,000**	

Cost Breakdown by Atlas Category

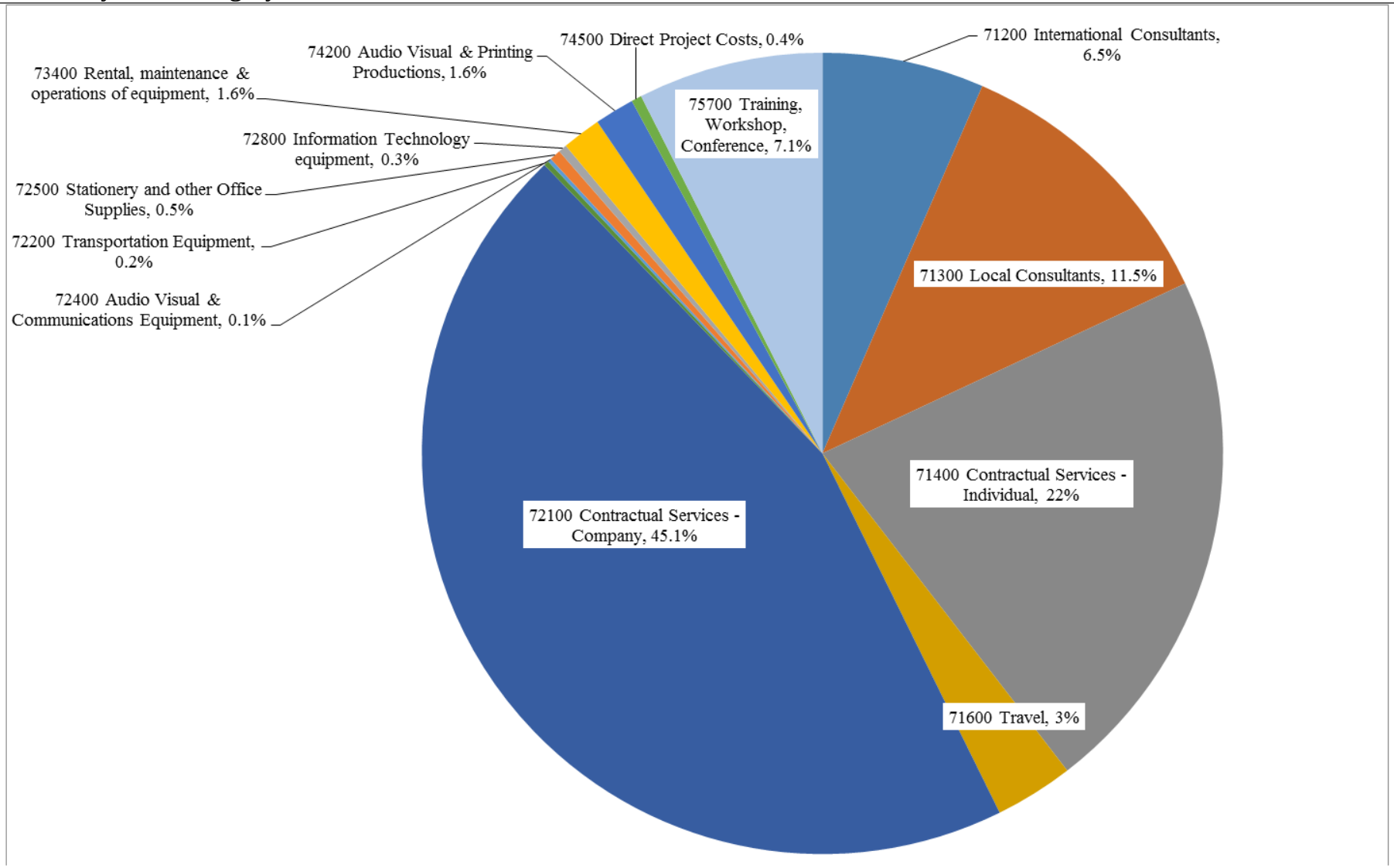

Figure 10: Breakdown of Indicative Budget by Atlas Cost Category

Budget Notes:

No detail budget notes are prepared for summary tables, including the following Table III-2A, III-3A, III-4A, and III-5A.

1.	Category 71200 includes costs for international consultants and experts retained to support the project activities.
2.	Category 71300 includes costs for local consultants and experts retained under short-term contractual arrangements.
3.	Category 71400 includes personnel costs for the regional project management unit staff, and also specialists retained under long-term contractual arrangements.
4.	Category 71600 includes travel, hotel, and per diem costs for meetings, workshops, trainings, etc.
5.	Category 72100 includes costs for work completed by service providers, including consultancy companies, NGOs, research institutions, and academic institutions.
6.	Category 72200 includes investment costs for transportation equipment, specifically motorbikes for use by the site mobilizers in the field.
7.	Category 72400 includes investment costs for audio visual equipment needed to document and support the project activities.
8.	Category 72500 includes costs for stationery and other office supplies for the regional project management office and those used by the national coordination units.
9.	Category 72800 includes costs for computer equipment, telephone equipment, GPS units, and other information technology equipment.
10.	Category 73400 includes rental of meeting venues, and rental, maintenance and operations of equipment used to support the project activities.
11.	Category 74200 includes costs for producing materials and knowledge products in audio-visual and printed form.
12.	Category 74598 includes direct project costs.
13.	Category 75700 includes costs for training, workshops, and conferences.
Indonesia National, Component 1	
14.	Costs for local consultants totaling USD 85,000, including: one month per year at USD 4,250 per month for each of the five years for support of activities under Outcome 1.1; USD 10,000 for a NIMC assessment; one month per year at USD 4,250 per month for each of the five years for support of activities under Outcome 1.2; USD 10,000 for a policy assessment; one month per year at USD 4,250 per month for each of the five years for support of activities under Outcome 1.3; USD 15,000 for updating the NAP.
15.	Contractual services (Individual) for national coordination unit broken down as follows: 3.5 months per year, 29% time, for the National Coordinator for each of the 5 years of implementation at USD 2,431 per month; 3.5 months per year, 29% time, for the National Finance/Administrative Assistant at USD 1,622 per month for each of the 5 years of project implementation.
16.	Local travel expenses at USD 3,180 per year.
17.	Costs for contractual services (company) totaling USD 20,000 for designing and delivering capacity building programs under Outcome 1.2.
18.	Office supplies and stationary at USD 300 per year.
19.	Rental of venues, equipment, and other items totaling USD 15,900 for meetings, workshops, and trainings under Component 1.
20.	Costs for audio visual and printed materials totaling USD 6,500, for supporting AV and printed documentation for the activities under Component 1.
21.	Workshop/training/conference related expenses totaling USD 129,055, including: USD 121,055 for travel/hotel/per diem/venue rental expenses for the trainings for trainers; and USD 7,155 for travel/hotel/per diem/venue rental for the NAP validation workshop.
Indonesia National, Component 2	
22.	Costs for international consultants totaling USD 53,000, covering one month per year in years 1, 2, 3, and 4 for a biodiversity expert for providing miscellaneous support the MPA sustainable financing strategy, improvements in management effectiveness, and design of the Kolepon MPA.
23.	Costs for local consultants totaling USD 284,600, including: 4.5 months at USD 4,250 per month for miscellaneous support under Outcome 2.1; USD 10,000 for an IUU fishing assessment; USD 15,000 for a national pollution hotspot analysis; 30 months at USD 4,250 per month for miscellaneous support under Outcome 2.3; USD 40,000 for support of biodiversity information management systems; 5.5 months at USD 4,250 per month for miscellaneous support under Outcome 2.4; and USD 45,000 for support in the ICM planning and CCA vulnerability assessment under Outcome 2.4.
24.	Contractual services (Individual) for national coordination unit broken down as follows: 7.5 months per year, 63% time, for the National Coordinator for each of the 5 years of implementation at USD 2,431 per month; 7.5 months per year, 63% time, for the National Finance/Administrative Assistant at USD 1,622 per month for each of the 5 years of project implementation; and 12 months per year, 100%, for each of the three site mobilizers for years 2, 3, 4, and 5 of project implementation at USD 1,253 per month.
25.	Local travel expenses for national coordinator and site mobilizers (combined), respectively, at USD 1,725 in year 1 and USD 10,725 per year for the other years.
26.	Costs for contractual services (company) totaling USD 1,954,236; Outcome 2.1 services including USD 5,000 for delivering EAFM training, USD 55,000 for design and pilot implementation of EAFM plan for shrimp fisheries in Aru, USD 55,000 for design and pilot implementation of EAFM plan for red snapper fisheries for Aru, USD 75,000 for the FIP for shrimp fisheries in Aru, USD

	75,000 for the FIP for red snapper fisheries in Aru, USD 75,000 for the FIP for barramundi fisheries in Merauke, USD 75,000 for implementation of IUU fishing activities, USD 40,000 for development of a database linking traceability and trade; Outcome 2.2 services including USD 70,000 for a pollution pilot implementation, USD 30,000 for developing an oil spill response plan and facilitating a drill with local communities; Outcome 2.3 services including USD 95,000 for planning and training associated with improved management effectiveness and financial sustainability of the Southeast Aru MPA, USD 350,000 for field activities at Southeast Aru MPA, USD 65,000 for partnering with other projects in Southeast Aru, USD 250,000 for planning and stakeholder consultations for the proposed new Kolepon MPA, USD 250,000 for pilot activities associated with the new Kolepon MPA; Outcome 2.4 services including, USD 225,000 for ICM pilot implementation, and USD 150,000 for EbA pilot implementation; and USD 14,235 in miscellaneous support services.
27.	An investment cost of USD 10,000 for two motorbikes to support the work of the site mobilizers.
28.	Investment cost for audio-visual and communications equipment at USD 5,000.
29.	Office supplies and stationary at USD 1,500 per year.
30.	Investment cost for information technology equipment at USD 9,000.
31.	Costs for audio visual and printed materials totaling USD 14,250, for supporting AV and printed documentation for the activities under Component 2.
32.	Workshop/training/conference related expenses totaling USD 81,355, including: USD 50,350 for travel/hotel/per diem/venue rental expenses for the EAFM/MCS trainings; and USD 31,005 for travel/hotel/per diem/venue rental for the MPA workshops under Outcome 2.3.
Indonesia National, Project Management	
33.	Contractual services (Individual) for national coordination unit broken down as follows: 1 month per year, 8% time, for the National Coordinator for each of the 5 years of implementation at USD 2,431 per month; 1 month per year, 8% time, for the National Finance/Administrative Assistant at USD 1,622 per month for each of the 5 years of project implementation.
34.	Office supplies and stationary at USD 600 per year.
35.	Office services, including telephone and Internet, and maintenance of IT equipment estimated at USD 3,000 per year.
36.	Direct project costs at USD 10,908, approximately USD 2,182 per year for each of the 5 years of implementation. UNDP support services shall cover admin & operation supports to be detailed prior or during the inception workshop.
Timor-Leste National, Component 1	
37.	Costs for local consultants totaling USD 89,325, including: one month per year at USD 2,650 per month for each of the five years for support of activities under Outcome 1.1; USD 10,000 for a NIMC assessment; one month per year at USD 2,650 per month for each of the five years for support of activities under Outcome 1.2; USD 10,000 for a policy assessment; one month per year at USD 2,650 per month for each of the five years for support of activities under Outcome 1.3; USD 10,000 for updating the NAP; and a combined total of 5.5 months at USD 2,650 per month for support of activities under Outcome 1.4.
38.	Contractual services (Individual) for national coordination unit broken down as follows: 3 months per year, 25% time, for the National Coordinator for each of the 5 years of implementation at USD 2,161 per month; 3 months per year, 25% time, for the National Finance/Administrative Assistant at USD 1,084 per month for each of the 5 years of project implementation.
39.	Travel and DSA expenses totaling USD 15,900, including: USD 7,950 for the annual coordination meetings; and USD 7,950 for the annual NIMC meetings.
40.	Costs for contractual services (company) totaling USD 20,000 for designing and delivering capacity building programs under Outcome 1.2.
41.	Office supplies and stationary at USD 900 per year.
42.	Investment cost for information technology equipment at USD 2,500.
43.	Rental of venues, equipment, and other items totaling USD 15,900 for meetings, workshops, and trainings under Component 1.
44.	Costs for audio visual and printed materials totaling USD 10,500, for supporting AV and printed documentation for the activities under Component 1.
45.	Workshop/training/conference related expenses totaling USD 77,115, including: USD 71,500 for travel/hotel/per diem/venue rental expenses for the trainings for trainers; and USD 5,565 for travel/hotel/per diem/venue rental for the NAP validation workshop.
Timor-Leste National, Component 2	
46.	Costs for international consultants totaling USD 172,750, including: USD 13,250 for an international fisheries expert; USD 13,250 to support the national pollution hotspot analysis under Outcome 2.2; 7 months at USD 13,250 per month for support in the design of the proposed new MPA; and two months at USD 13,250 per month for an expert specializing in MPA financing.
47.	Costs for local consultants totaling USD 331,945, including: 14 months at USD 2,650 per month for miscellaneous support under Outcome 2.1; USD 8,500 for an IUU fishing assessment; 8.5 months at USD 2,650 per month for miscellaneous support for activities under Outcome 2.2; USD 5,000 for a national pollution hotspot analysis; 48 months at USD 2,650 per month for miscellaneous support under Outcome 2.3; USD 20,000 for support of biodiversity information management systems; 2.5 months at USD 2,650 per month for miscellaneous support under Outcome 2.4; and USD 30,000 for support in the ICM planning and CCA vulnerability assessment under Outcome 2.4.

48.	Contractual services (Individual) for national coordination unit broken down as follows: 8 months per year, 67% time, for the National Coordinator for each of the 5 years of implementation at USD 2,161 per month; 8 months per year, 67% time, for the National Finance/Administrative Assistant at USD 1,084 per month for each of the 5 years of project implementation; and 12 months per year, 100%, for each of the two site mobilizers for years 2, 3, 4, and 5 of project implementation at USD 1,253 per month.
49.	Local travel expenses for national coordinator and site mobilizers (combined), respectively, at USD 1,000 for year 1 and USD 4,000 per year in the other years.
50.	Costs for contract services (company) totaling USD 951,479, including: Outcome 2.1 services including USD 5,000 for delivering EAFM and MCS training; USD 15,000 for supporting implementation of the NPoA-IUU; USD 5,000 for developing an EAFM plan for mackerel fisheries; and USD 70,000 for pilot implementation of the EAFM plan; USD 30,000 for a pollution pilot implementation in Manatuto Municipality, USD 25,000 for a pollution pilot implementation in Suai; USD 20,000 for developing an oil spill response plan and facilitating a drill with local communities; USD 65,000 for planning and training associated with improved management effectiveness and financial sustainability of the NKS MPA, USD 180,000 for LMMA field activities at NKS MPA, USD 180,000 for planning and stakeholder consultations for the proposed new MPA; USD 75,000 for LMMA pilot activities associated with the new MPA; USD 20,000 for support of regional exchanges; USD 170,000 for ICM pilot implementation; USD 100,000 for CCA implementation activities; and USD 1,479 for miscellaneous support services.
51.	An investment cost of USD 10,000 for two motorbikes to support the work of the site mobilizers.
52.	An investment cost of USD 3,000 for audio visual equipment.
53.	Office supplies and stationary at USD 1,140 per year.
54.	Investment cost for information technology equipment at USD 4,500.
55.	Costs for audio visual and printed materials totaling USD 8,750, for supporting AV and printed documentation for the activities under Component 2.
56.	Workshop/training/conference related expenses totaling USD 56,550, including: USD 27,030 for travel/hotel/per diem/venue rental expenses for the EAFM/MCS trainings; and USD 29,520 for travel/hotel/per diem/venue rental for the MPA workshops under Outcome 2.3.
Timor-Leste National, Project Management	
57.	Contractual services (Individual) for national coordination unit broken down as follows: 1 month per year, 8% time, for the National Coordinator for each of the 5 years of implementation at USD 2,161 per month; 1 month per year, 8% time, for the National Finance/Administrative Assistant at USD 1,084 per month for each of the 5 years of project implementation.
58.	Office supplies and stationary at USD 300 per year.
59.	Office services, including telephone and Internet, and maintenance of IT equipment estimated at USD 2,400 per year.
60.	Direct project costs at USD 9,180, approximately USD 1,836 per year for each of the 5 years of implementation. UNDP support services shall cover admin & operation supports to be detailed prior or during the inception workshop.
Papua New Guinea National, Component 1	
61.	Costs for local consultants totaling USD 55,250, including: USD 3,500 for a NIMC assessment; USD 3,500 for a policy assessment; 4 months at USD 2,650 for miscellaneous support under Outcome 1.2; USD 35,000 for the TDA report and NAP preparation; and 3 months at USD 2,650 per month for support of activities under Outcome 1.4.
62.	Contractual services (Individual) for national coordination unit broken down as follows: 7 months per year, 58% time, for the National Coordinator for each of the 5 years of implementation at USD 2,161 per month; 3.5 months per year, 29% time, for the National Finance/Administrative Assistant at USD 1,084 per month for each of the 5 years of project implementation. Note: the National Finance/Administrative Assistant is budgeted for half time throughout the project.
63.	Travel and DSA expenses totaling USD 11,925, including: USD 3,975 for the annual coordination meetings; and USD 7,950 for the annual NIMC meetings.
64.	Contractual services (company) totaling USD 120,020 for a fisheries assessment.
65.	Office supplies and stationary at USD 540 per year.
66.	Investment cost for information technology equipment at USD 1,500.
67.	Printing costs totaling USD 13,750, for producing hardcopies of the TDA, NAP, and project knowledge products.
68.	Workshop/training/conference related expenses totaling USD 16,960, including: USD 12,985 for the training for trainers; and USD 3,975 for the TDA/NAP workshop.
Papua New Guinea National, Component 2	
69.	Costs for local consultants totaling USD 17,950; including USD 10,000 for the artisanal fisheries plan, and USD 2,650 in years 3, 4, and 5 in support of Component 2 activities.
70.	Contractual services (Individual) for national coordination unit broken down as follows: 4 months per year, 33% time, for the National Coordinator for each of the 5 years of implementation at USD 2,161 per month; 1.5 months per year, 13% time, for the National Finance/Administrative Assistant at USD 1,084 per month for each of the 5 years of project implementation. Note: the National Finance/Administrative Assistant is budgeted for half time throughout the project.
71.	Travel costs including USD 400 per year for local travel for the national coordinator.

72.	Contractual services (company) totaling USD 106,300, including: USD 5,000 for delivering the EAFM training; USD 50,000 for the EAFM pilot implementation; and USD 50,000 for the IUU fishing pilot (community MCS) implementation; and USD 1,300 for miscellaneous support services.
73.	Office supplies and stationary at USD 300 per year.
74.	Investment cost for information technology equipment at USD 4,000.
75.	Printed materials in support of the training workshop at USD 500
76.	Workshop/training/conference related expenses totaling USD 9,275 for travel and per diem for the EAFM training workshop, and rental of a meeting venue for EAFM training workshop, at USD 795 per day for five days.
Papua New Guinea National, Project Management	
77.	Contractual services (Individual) for national coordination unit broken down as follows: 1 month per year, 8% time, for the National Coordinator for each of the 5 years of implementation at USD 2,161 per month; 1 month per year, 8% time, for the National Finance/Administrative Assistant at USD 1,084 per month for each of the 5 years of project implementation. Note: the National Finance/Administrative Assistant is budgeted for half time throughout the project.
78.	Office supplies and stationary at USD 240 per year.
79.	Office services, including telephone and Internet, and maintenance of IT equipment estimated at USD 600 per year.
Regional, Component 1	
80.	Costs for international consultants totaling USD 106,000, including USD 39,750 for legal and financing experts in design of the reginal governance mechanism, USD 26,500 to support the regional climate change activities under Outcome 1.3, and USD 26,500 for consolidating and reviewing the updated TDA and SAP.
81.	A total of USD 133,200 has been allocated for local consultant support for the regional level activities under Component 1, including: 0.5 month per year for 5 years at USD 4,240 per month for support of the Stakeholder Partnership Forum; 0.5 month per year for 5 years at USD 4,240 per month for miscellaneous support of activities under Outcome 1.1; USD 10,000 for a regional policy assessment; combined total of 12.5 months over 5 years at USD 4,240 per month for support of activities under Outcome 1.2; and USD 15,000 for a climate change case study under Outcome 1.3
82.	Contractual services (Individual) for regional project management unit broken down as follows: 5 months per year, 42% time, for the Regional Project Manager for each of the 5 years of implementation at USD 7,767 per month; 3.5 months per year, 29% time, for the Finance/Procurement Officer at USD 2,431 per month for each of the 5 years of project implementation; 4 months per year, 33% time, for the Policy/RBM Specialist at USD 5,235 per month for the first 2 years of project implementation; 4 months per year, 33% time, for the Procurement Assistant at USD 1,622 per month for each of the 5 years of project implementation; 4 months per year, 33% time, for the Administrative Assistant at USD 1,622 per month for each of the 5 years of project implementation; 1.5 months per year, under long-term agreement, for the Communications/KM Specialist at USD 2,972 per month for years 1 through 4 of project implementation and 1 month in year 5; and 1.5 months per year, under long-term agreement, for the Gender Equity/Social Inclusion Coordinator at USD 2,972 per month for each of the 5 years of project implementation.
83.	Travel related expenses, including hotel and DSA, totaling USD 95,400 for the project inception meeting and annual RSC meetings.
84.	Costs for contractual services (company) total USD 250,001, including USD 30,000 for designing and implementing a joint regional initiative with the CTI-CFF; USD 10,000 for a regional exchange under Outcome 1.2; USD 200,000 for a regional climate change collaborative assessment; USD 5,000 facilitate a climate data workshop; USD 5,000 for preparing and facilitating the Ministerial Meeting; and USD 21,496 for miscellaneous services.
85.	Investment cost for information technology equipment at USD 6,230.
86.	USD 1,590 for miscellaneous rental expenses.
87.	Costs for audio visual and printed materials totaling USD 22,500, including USD 7,000 for an audio visual production documenting the planned regional Ministerial meeting; USD 12,000 for adapting regional training guides into local languages and circumstances; USD 3,000 for printed materials in support of the annual RSC and SPF meetings; and USD 500 for printed materials for the regional climate change workshop.
88.	Workshop/training/conference related expenses totaling USD 143,895; including USD 45,315 for the annual SPF workshops and other events under Outcome 1.1; USD 21,465 for regional exchange workshops under Outcome 1.2; USD 13,515 for the regional climate change workshop; and USD 63,600 for travel expenses for the regional TDA validation workshop and the SAP Ministerial Meeting.
Regional, Component 2	
89.	Costs for international consultants totaling USD 179,250; including USD 39,500 for international fisheries expert to support activities under Outcome 2.1, USD 26,000 for support of pollution hotspot analysis under Outcome 2.2, USD 53,000 for a biodiversity expert to support the regional MPA strategy, and USD 60,000 for completion of a regional ecosystem valuation.
90.	Costs for local consultants in support totaling USD 85,660; including USD 17,500 for a regional IUU fishing assessment, USD 38,480 for support the regional pollution hotspot analysis, and USD 29,680 for supporting the regional biodiversity activities under Outcome 2.3.
91.	Contractual services (Individual) for regional project management unit broken down as follows: 5.5 months per year, 46% time, for the Regional Project Manager for each of the 5 years of implementation at USD 7,767 per month; 6.5 months per year, 54% time, for the Finance/Procurement Officer at USD 2,431 per month for each of the 5 years of project implementation; 11 months

	per year, 92% time, for the Biodiversity Specialist at USD 5,235 per month for the first 2 years of project implementation; 7 months per year, 58% time, for the Policy/RBM Specialist at USD 5,235 per month for the first 2 years of project implementation; 6.5 months per year, 54% time, for the Procurement Assistant at USD 1,622 per month for each of the 5 years of project implementation; 6.5 months per year, 54% time, for the Administrative Assistant at USD 1,622 per month for each of the 5 years of project implementation; 2 months per year under long-term agreement, for the Communications/KM Specialist at USD 2,972 per month for years 1 throuh 4 of project implementation and 1.5 months in year 5; and 3 months per year, under long-term agreement, for the Gender Equity/Social Inclusion Coordinator at USD 2,972 per month for years 1 through 4 of project implementation and 2 months in year 5.
92.	Local travel expenses for the regional management unit costs associated with activities under Component 2, at USD 9,000 per year, and a total of USD 10,000 to cover travel expenses for the international consultants.
93.	Contractual services (company) total USD 826,927 and include: (1) under the fisheries outcome (2.1) USD 200,000 for a fisheries assessment/cruise, USD 150,000 for design/training/implementation of a regional EAFM plan, USD 15,000 for delivering training on MCS, USD 10,000 for facilitating a RPoA-IUU meeting, and USD 10,000 for development of a toolkit for Global Record of Fishing Vessels; under the pollution outcome (2.2) USD 25,000 for designing and delivering a regional oil spill response exchange/training; under the biodiversity outcome (2.3) USD 230,000 for design of a regional MPA network, USD 75,000 for design of a reginal action plan for enhanced protection of marine turtles, and USD 40,000 in support of regional exchanges; and USD 23,382 for miscellaneous support services.
94.	Office supplies and stationary at USD 600 per year
95.	Investment cost for information technology equipment at USD 3,000.
96.	Costs for printed materials totaling USD 4,250 in support of the regional training workshops under Component 2.
97.	Workshop/training/conference related expenses totaling USD 153,435; including USD 77,115 for workshop related expenses for the planned regional EAFM and MCS training workshops; USD 38,160 for the pollution hotspot analysis workshop and regional oil spill response training/exchange; and USD 38,160 for workshop related expenses associated with the regional MPA network and marine turtle action plan workshop.
Regional, Component 3	
98.	International consultant (knowledge management expert) at USD 13,250; and international consultant (SAP monitoring and reporting) at USD 26,500.
99.	Local consultants including: website update expert at USD 4,240 per year; SAP monitoring and reporting designer at USD 33,920; and an expert to design and deliver training on the SAP monitoring and reporting system at USD 15,000.
100.	Contractual services (Individual) for regional project management unit broken down as follows: 0.5 month per year, 4% time, for the Regional Project Manager for each of the 5 years of implementation at USD 7,767 per month; 0.5 month per year, 4% time, for the Finance/Procurement Officer at USD 2,431 per month for each of the 5 years of project implementation; 1 months per year, 8% time, for the Biodiversity Specialist at USD 5,235 per month for the first 2 years of project implementation; 1 months per year, 8% time, for the Policy/RBM Specialist at USD 5,235 per month for the first 2 years of project implementation; 0.5 month per year, 4% time, for the Procurement Assistant at USD 1,622 per month for each of the 5 years of project implementation; and 0.5 month per year, 4% time, for the Administrative Assistant at USD 1,622 per month for each of the 5 years of project implementation; 1.5 months per year, under long-term agreement, for the Communications/KM Specialist at USD 2,972 per month for each of the 5 years of project implementation; and 0.5 months per year, under long-term agreement, for the Gender Equity/Social Inclusion Coordinator at USD 2,972 per month for each of the 5 years of project implementation.
101.	Costs for miscellaneous travel to support Component 3 activities, including USD 7,947 in Year 1, and USD 7,500 in Years 2 through 5.
102.	Contractual services (company) for piloting the SAP monitoring and report system at USD 47,511; and for developing case studies and other knowledge products documenting project results at USD 47,511.
103.	An investment cost of USD 4,500 for audio visual equipment to support the knowledge management activities.
104.	A combined total of USD 75,000 for production of audio visual and printed knowledge products.
105.	Workshop/training/conference related expenses totaling USD 61,056 and including the regional project management staff to participate in CTI/GEF seminars and workshops, annual LME global workshop, and the PEMSEA Congress (once in 5 years). This line item also includes the travel and per diem costs for 10 participants for a 2-day regional training workshop on the SAP monitoring and reporting system. Rental of a meeting venue for the regional SAP monitoring and reporting training workshop, at USD 795 per day for two days.
Regional, Project Management	
106.	International consultants for midterm review (USD 50,000) and terminal evaluation (USD 50,000).
107.	Contractual services (Individual) for regional project management unit broken down as follows: 1 months per year, 8% time, for the Regional Project Manager for each of the 5 years of implementation at USD 7,767 per month; 1 month per year, 8% time, for the Finance/Procurement Officer at USD 2,431 per month for each of the 5 years of project implementation; 1 month per year, 8% time, for the Procurement Assistant at USD 1,622 per month for each of the 5 years of project implementation; and 1 month per year, 8% time, for the Administrative Assistant at USD 1,622 per month for each of the 5 years of project implementation.
108.	Project management related travel costs for the regional project management unit, at USD 3,053 in Year 1 and USD 2,500 in Years 2 through 5.

109.	Contractual services (Company) estimated for auditing and other professional services (USD 5,000 per year), and also for office cleaning/maintenance (USD 300 per month); and USD 1,996 for miscellaneous services.
110.	Investment cost for audio visual and communication equipment, e.g., video camera, estimated at USD 1,500.
111.	Office supplies and stationary at USD 200 per month.
112.	Investment cost for information technology equipment at USD 2,500.
113.	Office services, including telephone and Internet, and maintenance of IT equipment estimated at USD 1,500 per month.
114.	Direct project costs at USD 20,421, approximately USD 4,084 per year for each of the 5 years of implementation. UNDP support services shall cover admin & operation supports (including recruitment of project staff) to be detailed prior or during the inception workshop.

SUMMARY OF FUNDS

Source	Amount Yr 1	Amount Yr 2	Amount Yr 3	Amount Yr 4	Amount Yr 5	Total
GEF	940,684	2,372,586	2,512,609	2,458,945	1,460,838	9,745,662
Government (in-kind)	6,638,106	6,638,104	6,638,104	6,638,104	6,638,104	33,190,522
Government (cash)	5,360,000	5,360,000	5,360,000	5,360,000	5,360,000	26,800,000
Donor Agency (In-kind)	85,651	0	0	0	0	85,651
UNDP (cash)	25,000	12,500	12,500	12,500	12,500	75,000
UNDP (in-kind)	10,000	10,000	10,000	10,000	10,000	50,000
Total	13,059,441	14,393,190	14,533,213	14,479,549	13,481,442	69,946,835

SECTION IV: ADDITIONAL INFORMATION

PART I: Other Agreements

Cofinancing letters may be found in Annex G

PART III: Terms of Reference

Terms of Reference May be Found in Annex H

PART IV: Stakeholder Involvement Plan

Regional and national consultation processes related to project development

314. As this proposed GEF project represents a follow on phase of an existing project, most of the primary stakeholders at regional, national and local levels have been involved in project design activities in the lead up to the preparation of the Project Document. Generally, project design has followed highly participatory and inclusive processes, in line with UNDP and GEF requirements. It should be noted that a number of different and ongoing stakeholder engagement processes have led to project formulations. This includes consultations related to:

    a. The identification and prioritization of demonstration sites and replication sites for EAFM, MPA, ICM and CCA activities;
    b. The state of spatial planning related to ICM in Indonesia and Timor-Leste;
    c. Needs and opinions of actors related to ATS fisheries;
    d. The impacts of climate change on coastal communities in the ATS region;
    e. Gender inequities as related to coastal resource management that are limiting potential in communities in the demonstration site of Indonesia;
    f. Broader social inclusion at the community level in relation to decision-making around the use of coastal and marine resources, and
    g. National consultations related to project document formulation, consolidation of outputs, activity design, and setting of targets /indicators among other things.

Approach to stakeholder participation

315. The main objectives of encouraging wide participation in this program are to elicit input and advice from a range of stakeholders who might be affected by the program, might have specific expertise in the subject area, or might be the end-users of the program outputs. The approach to stakeholder involvement and participation has encouraged adherence to a number of guiding principles, including:

    a. Adding value to project activities;
    b. Ensuring accessibility of information, including by both government and non-government, to inform decision-making processes;
    c. Encouraging adherence to values of transparency, trust, equity, and fairness;
    d. Promoting responsiveness to identified needs and the highest ethical standards and respects for differing priorities and values;
    e. Ensuring local ownership and the creation of outputs that are relevant and of benefit to communities and organizations;
    f. Supporting collaborative approaches to project interventions;
    g. Including different types of stakeholder groups in participation processes and benefit distribution, including but not limited to engagement, capacity building, employment, skills transfer, sharing of knowledge and the increase of cultural awareness;
    h. Developing mechanisms to manage conflicts in the public interest;
    i. Being flexible to adapt to changing circumstances;
    j. Fostering well-coordinated and planned implementation; and
    k. Generating, and responding to, feedback.

316. Stakeholder involvement in ATSEA-2 will build on the consultations from Phase 1 and will be based on the following:

a. Continued analyses of potential stakeholders to understand their interests and include them, where appropriate, in ATSEA-2;
b. Improved linkages with industry, civil society (including private sector and NGOs) and communities; as well as development partners;
c. Continued consultations with stakeholder groups throughout design and implementation stages;
d. Engagement of stakeholders systematically through a set of agreed Stakeholder Engagement and Communications Plans (component 3), developed based on this Strategy, throughout implementation stages; and
e. Informing stakeholders of accountability mechanism.

317. Participation is expected to allow the Program to generate the following benefits:

a. relate better to the local context;
b. provide technical excellence;
c. follow international good practice;
d. harmonize with other development partners and projects; and
e. Reflect a broad range of information and perspectives.

318. As mentioned in the Stakeholder Analysis, the project will engage with stakeholders at a number of levels:

a. regional level, including regional intergovernmental organizations, and donor and financing agencies;
b. national level, including national ministries, departments and agencies covering natural resources and environment, agriculture, fisheries, health, education, transportation, energy, tourism, industry, foreign affairs, economic development, and finance;
c. local level, including village/township, municipalities, city, district and provincial governments, and their respective national/central government counterparts; and
d. Corporate sector/business community at all three levels.

319. In order to strengthen the involvement of all stakeholders in the implementation of the ATSEA SAP, a Stakeholder Partnership Forum will be established that will hold annual meetings as a forum for exchange of ideas/information and evaluation of the implementation of the agreed program (Output 1.1.2). In addition, to facilitate the communication among the stakeholders, a web-based information system accessible to all parties will be established (Output 3.1.2). Special attention will be paid to engaging with local people and women's groups active at the project sites in Indonesia and Timor-Leste (see below) in implementation of demonstrations on sustainable fisheries management, ecosystem-based adaptation, ICM, etc.

320. A number of additional mechanisms for stakeholder engagement have been built into the structure of ATSEA-2 implementation. **Figure 11** presents an overview.

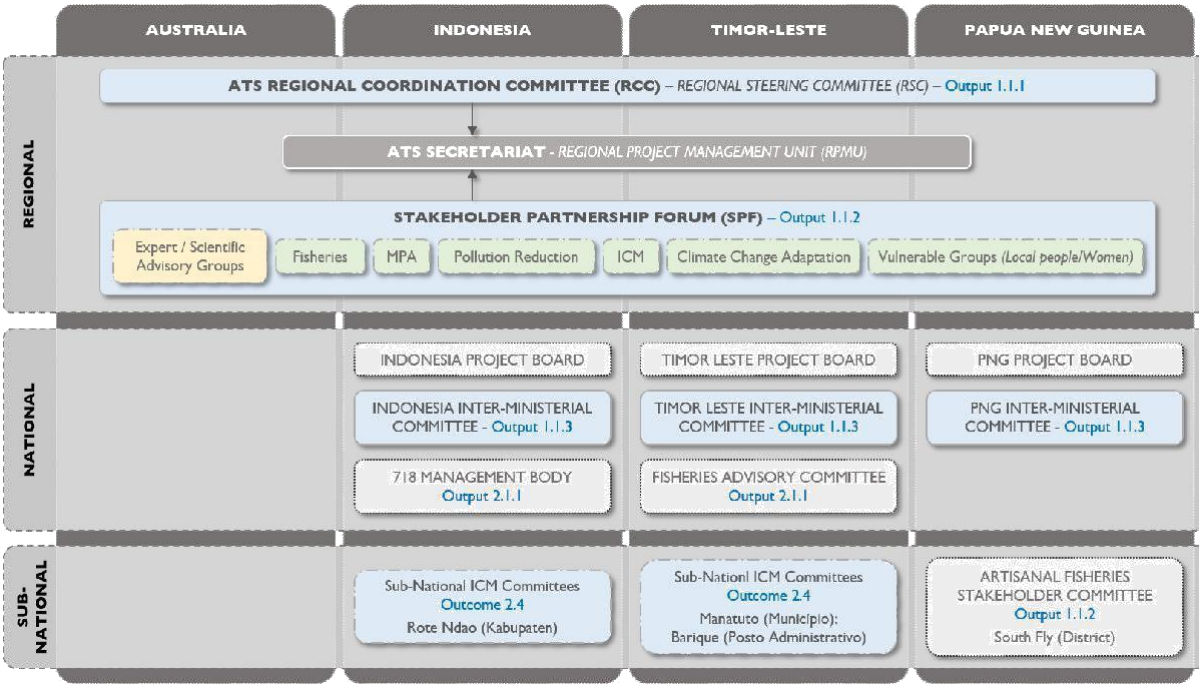

Figure 11: Overview of Stakeholder Engagement Platforms Designed into ATSEA-2

Stakeholder involvement plan

321. A full Stakeholder Involvement Plan remains to be prepared upon project inception based upon the strategy laid out in this document. This will be more specific to the priority sites identified in the Project Strategy section. The objective of the ATSEA-2 Engagement Strategy during the implementation stage is to scope and ensure team members and project leaders actively consider opportunities for the engagement of the project stakeholders in projects; and the cooperation among ATSEA-2 projects. Project leaders are expected to have consulted with, negotiated with, and received consent from relevant stakeholders prior to implementation of the project activities. A matrix of engagement will be created for each project/output/activity. This matrix will consist of a list of all stakeholders to be consulted (or groups of stakeholders), against each time point (milestone) they should be consulted at. The relevant stakeholders in each of the 3 beneficiary countries and in Australia are listed in **Annex J**, along with their roles and responsibilities with respect to the implementation of the project.

322. National and local stakeholders in Indonesia and Timor-Leste were extensively consulted during the development of the National Action Programs (NAPs) for the ATS. The main stakeholders identified in the respective NAPs of Indonesia and Timor-Leste, as well as those stakeholders from all four littoral countries who were consulted throughout the PIF and PPG design phases, are summarized below. (Note that institutional names do not necessary reflect exactly those in the NAPs as a result of institutional reorganizations that have taken place in both Indonesia and Timor-Leste.)

Private Sector Engagement

323. The involvement of the private sector in SAP and NAP implementation is a key objective of ATSEA-2's Engagement Strategy. A few of the companies that have expressed some interest in getting involved include:

    a. PT Intan Seafood, Indonesia: A private company that reportedly has taken over the Arafura Sea Red Snapper Fisheries Improvement Project (FIP) from Sustainable Fisheries Partnership (SFP). The project started in 2012, partly supported by ATSEA-1.

    b. IPIECA, the global oil and gas industry association for environmental and social issues: Possible opportunities for collaboration with the IPIECA Oil Spill Working Group. This is an international organization, having a Southeast Asia office.

    c. ENI and ConocoPhillips: two oil and gas companies in Timor-Leste, possibly interested in collaborating on the oil spill preparedness activities.

    d. OK Tedi Development Foundation. The arm of the OK TEDI mining company in Papua New Guinea. There could be opportunities to collaborate on community level activities planned in the South Fly District.

Gender Considerations

324. Women's vulnerabilities to resource overuse and climate change impacts are similar to those of men. Women however also have specific additional concerns, linked to their key roles in the household and the community. The position of women in the society, in particular in Timor-Leste and PNG, is more vulnerable than that of man, due to lack of land rights and asset ownership, low educational levels and patriarchal rule in domestic sphere. Gender therefore requires comprehensive consideration in interventions designed.

325. In this project, women will be involved in planning and decision-making on implementing the interventions, and preference will be given to funding interventions that benefit both men and women. Aligning the project with the needs of women will increase the utility and longevity of the investments. This equal participation of women and men is in line with the principles underlying UNDP's gender equality strategy as well as the GEF's own guidance and standards.

326. As a result of gender analysis conducted as a part of the socio-economic assessment during project preparation, project interventions designed incorporate and recognize the differences between labor, knowledge, needs, and priorities of men and women in fisheries. Specific involvement of women in the proposed project will include:

    a. consultation with women forums on needs and requirements associated with all interventions;

    b. development of all strategic and planning documents in consultation with women and women forums, at all levels from national to the communities;

    c. targeted budgeting of activities promoting resilience and adaptive capacity of women, and monitoring and evaluation of such activities;

    d. participation, training and skills building of women for training activities identified and budgeted in relevant project Outcomes; and, when applicable,

    e. Equal payment of men and women.

327. Gender considerations will be brought into SAPs through addition of a statement of political will or commitment to gender mainstreaming in SAP implementation. This commitment will be reflected in NAPs and all issuing planning documents, leading towards actions that promote both women and men's roles in fishery. This is a fundamental point in fisheries management, where specialized knowledge and management responsibilities have historically accrued to either women or men, respectively.

328. In addition, the following women's activities are proposed and budgeted under Outcome 2.1 Improved management of fisheries and other coastal resources for livelihoods, nutrition and ecosystem health in Indonesia and Timor-Leste, in relation to Output 2.1.4 regarding Integrated Coastal Management (ICM):

    a. Business and financial management training for women-run home-based small business activities;

    b. Improved access to the market for seaweed farmers, for women-run seaweed growing and/or processing enterprises;

    c. Strengthening of the Women's Forum for Customary Communities, specific for Aru; and

    d. Contribution towards government-run Technical training for maintenance and repair of the solar-powered water desalination units in Rote.

329. Details of these activities, including preliminary budgets, are presented in **Annex A**.

330. Employment of a Gender Specialist, national, will be arranged under a short-term consultancy agreement. This position would ensure that investments on the ground will be accompanied by gender analysis; that different roles, needs and knowledge's of ecosystems of men and women are captured and fully integrated in the design and throughout the implementation; that women are equally represented in all discussion and decision making forums; and have equal access to training and capacity building opportunities.

331. Projects will use gender sensitive indicators and collect sex-disaggregated data that will be systematically recorded, reported and integrated into adaptive management responses at the project level. In addition, projects will use the following GEF gender mainstreaming core indicators:

    a. Percentage of interventions that have incorporated gender sensitive actions, indicators, targets, and/or budget.

    b. Share of women and men as direct beneficiaries of project.

    c. Percentage of national and regional policies, plans, strategies and other documents developed as a part of interventions that incorporate gender dimensions.

Long-term stakeholder participation

332. The project will provide the following opportunities for long-term participation of all stakeholders, with a special emphasis on the active participation of local communities and institutions, and enhancement of inter-agency, inter-sectoral coordination.

    a. Decision-making – through the Regional Coordination Committee (RCU). The terms of reference for the RCU will outline protocols and procedures involving stakeholder

participation, including managing key stakeholder relationships, conducting consultations with all stakeholders as required; and providing guidance and oversight to the Project Management.

b. Capacity building – at systemic, institutional and individual level – is one of the key strategic interventions of the project and will target all stakeholders that have the potential to be involved in implementing and/or monitoring management agreements related to project activities. The project will target especially organizations operating at the community level to enable them to actively participate in developing and implementing activities.

c. Knowledge management - will include the participatory development of an integrated knowledge management strategy, which will emphasize "communities of practice", outreach services, dissemination of information on good practices and lessons learned on as wide a scale as possible. Moreover, the project will create an enabling platform for multi-layered stakeholder participation through establishment of interoperable information systems, adding value to existing portals such as IW:Learn, and institutionalizing participation through a range of networks, partnerships, and exhibitions. The project's design incorporates these and other features to ensure effective stakeholder participation in the implementation of the ATSEA regional SAP and NAPs.

Coordination with related initiatives

333. The project will coordinate its activities with other ongoing GEF funded activities in the Arafura and Timor seas, the Coral Triangle and the wider East Asian Seas area, which include:

CTI projects:

Sulu-Celebes Sustainable Fisheries Management Project
This UNDP/GEF project with participation of Indonesia, Malaysia and the Philippines supports strengthening of institutions and introduction of reforms to catalyse implementation of policies on reducing overfishing and improving fisheries management in the Sulu-Celebes Sea. It was funded under the CTI at the same time as ATSEA and close collaboration has already been established and will continue during the SAP/NAP implementation phase.

Coastal and Marine Resources Management in the Coral Triangle: Southeast Asia
Indonesia participates in this ADB/GEF project that has the objective to support the long-term conservation and sustainable management of coral reef ecosystems and other coastal and marine resources to ensure their resiliency and generate global and local benefits. Collaboration and exchange of experiences will be realized in the areas of ICM and habitat management.

Strengthening Coastal and Marine Resources Management in the Coral Triangle of the Pacific - under the Pacific Alliance for Sustainability Program
This ADB/GEF project promotes the conservation and sustainable use of globally significant coastal and marine resources in the CTI region through the introduction of integrated and ecosystem-based coastal and marine resources management in 5 Pacific countries, including Timor-Leste.

Strategies for management of trawl by-catch (REBYC II)
This FAO/GEF project will contribute to the more sustainable use of fisheries resources and healthier marine ecosystems in the Coral Triangle and Southeast Asia waters by reducing by-catch, discards and fishing impact by trawl fisheries. It will be executed by the Southeast Asian Fisheries Development Center (SEAFDEC). Collaboration will be established on trawl management guidance, especially for shrimp trawling.

LME-EA Coral Triangle Initiative Project (COREMAPIII-CTI)
This World Bank/GEF project with Indonesia supports management of coral reef resources, associated ecosystems and biodiversity in a sustainable manner for the welfare of coastal communities.

Other GEF projects:

Scaling Up Implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA):

This UNDP/GEF project is executed by PEMSEA and both Indonesia and Timor-Leste participate in the project and are PEMSEA country partners. Collaboration and training between ATSEA and PEMSEA has already been established on ICM and will be extended to also include skills training in CCA/DRR, risk/vulnerability assessment, EAFM, MPA/MPA networking, and valuation of ecosystem services.

Enabling transboundary cooperation for sustainable management of the Indonesian Seas (ISLME)

This new initiative by FAO/GEF aims to facilitate the implementation of ecosystem approaches to fisheries and coastal management in the ISLME to ensure that sustainable development of ecosystem resources through a TDA/SAP. Close collaboration will be sought with this project to ensure that TDA/SAP process of the ISLME is harmonized and avoids overlap with the ATS TDA/SAP and that experiences and best practices knowledge are shared.

Global Coastal Fisheries Initiative (CFI) Program

This GEF financed program, currently under preparation, will focus on six countries in three geographies, representing various dimensions of the challenges facing coastal fisheries of global importance: Indonesia, Ecuador, Peru, Cabo Verde, Côte d'Ivoire, and Senegal. The CFI project in Indonesia is focusing on three fisheries management areas in the eastern part of the country: FMA 715, FMA 717, and FMA 718, the Arafura Sea. As there is overlap with respect to FMA 718, synergies will be capitalized upon, similar as with the ISLME project, as much as practicable.

Global sustainable supply chains for marine commodities

This UNDP/GEF project will mainstream sustainability into seafood supply chains through market and policy mechanisms and partnerships to rebuild and protect fish stocks and livelihoods. It has a demonstration on sustainable supply chain for snapper fishery in the Arafura and Timor seas and on blue swimming crab in the Sulu-Celebes Sea. The proposed project will this coordinate its work on value-chains and certification/eco-labelling with this initiative.

Capturing Coral Reef and Related Ecosystem Services (CCRES)

The objective of the World Bank/GEF project is to introduce innovation in valuing and conserving coral reef ecosystem services through demonstration pilots and market incentives in East Asia/Pacific. The project is co-executed by the University of Queensland, and Australia as a partner also to the proposed project will ensure synergies and coordination with regard to coral reef management.

Enhancing the Conservation Effectiveness of Seagrass Ecosystems Supporting Globally Significant Populations of Dugongs Across the Indian and Pacific Ocean Basins

Both Indonesia and Timor-Leste participate in this global UNEP/GEF project and collaboration and coordination with regard to protection and sustainable management of seagrass beds and dugongs will be established within MMAF in Indonesia, which is the lead agency for both projects, and the Marine Research Foundation in Timor-Leste.

LDCF projects:

Building shoreline resilience of Timor-Leste to protect local communities and their livelihoods

This UNDP/LDCF-supported initiative aims to strengthen resilience of coastal communities by the introduction of nature-based approaches to coastal protection. It will develop a comprehensive shoreline management plan for the entire coast of Timor-Leste. Close collaboration will therefore be established on formulation of ICM plans along the shoreline of the Timor Sea, as well as on ecosystem-based adaptation and development of management plans for coastal and marine ecosystems at risk.