

Annex A

Site Profiles and Descriptions of Community-Based Activities

List of Activities

Local Investment: Kabupaten Aru, Indonesia

1. EAFM, red snapper: Reduced fishing pressure and improved fishing gear/techniques
2. EAFM, red snapper: Reducing turtle bycatch
3. FIP, red snapper: Fisheries improvement project (alternative livelihoods)
4. EAFM, shrimp: Reduced fishing pressure and improved fishing gear/techniques
5. FIP, shrimp: Fisheries improvement project (alternative livelihoods)
6. EAFM: Strengthening Women's Forum for Customary Communities
7. IUU: Community monitoring, control, surveillance
8. MPA Southeast Aru: Collaborative management (awareness-raising)

Local Investment: Kabupaten Merauke, Indonesia

9. FIP, barramundi: Fisheries improvement project (alternative livelihoods)
10. MPA Kolepon: Pilot locally marine managed area (alternative livelihoods)

Local Investment: Kabupaten Rote Ndao, Indonesia

11. ICM: Improved access to the market for women-run seaweed farming and/or processing
12. ICM: Business and financial management training for women-run home-based businesses
13. EbA: Restoration of mangrove and/or other coastal vegetation
14. CCA: Solar Water Distillers and Business Skills (alternative livelihoods)

Local Investment: South Coast, Timor-Leste

15. EAFM: Women's cooperative for fish post-harvest livelihood improvements
16. EAFM: Pilot sustainable fish feed production/sourcing
17. CCA: Coastal vegetation restoration
18. CCA: Drought resistant home gardens
19. EAFM, mackerel: Improved fishing gear/techniques
20. MPA: Strengthening LMMAs at Nino Konis Santana (livelihood improvements)

Local Investment: South Fly District, Papua New Guinea

21. EAFM: Rights based management, improved fishing gear/techniques
22. IUU: Community monitoring, control, surveillance

Local Investment: **KABUPATEN ARU ARCHIPELAGO**

Maluku Province, Indonesia

The local investment in the Aru Archipelago supports the implementation of 718, emphasizing Ecosystem-based Fisheries Management, MCS for IUU fishing and improved community-management of the Southeast Aru MPA. The scope of the local investment covers the entire district, with particular emphasis on the red snapper and shrimp fisheries.



SITE PROFILE

Geography

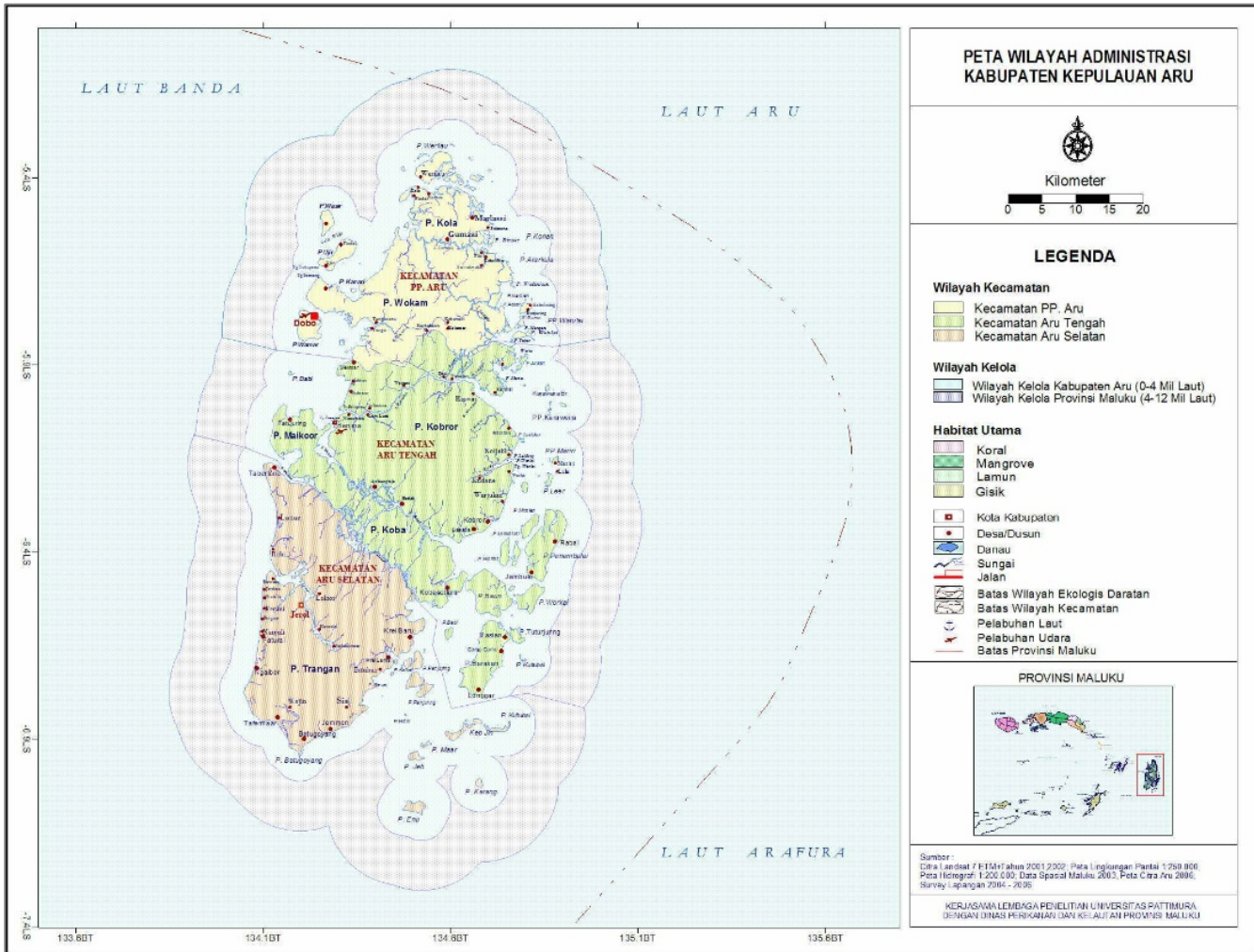
The Kepulauan Aru (Aru Islands) District is located between 5° to 8° south latitudes and from 133.5° to 136.5° east longitude. The total land area covers 6,426.77 km² and the topography is relatively flat. The coast line is 3900.5 km long, consisting of 40 inhabited islands and 147 uninhabited islands.

Kepulauan Aru is influenced by the east monsoon, typically occurring from April to October, and the west monsoon, which occurs from October to February, with the heaviest rain occurring between December and February. Transitional periods occur in March-April and October-November. Based on available data from 2013, the highest temperature recorded that year was 31 °C, and the average percentage of sunshine was 63% in March (BPS Kabupaten Kepulauan Aru 2014).

Administrative Division

Kepulauan Aru has 10 sub districts and 119 villages. 6 sub districts face the Aru and Arafura seas. They are East North Aru Batulei, North Aru, East Central Aru, South Central Aru, Central Aru and East South Aru Sub districts. Around 96% of people live along the coast. Eight of the islands are considered as border islands based on Presidential Decree No. 78/2005 on Small Islands Outer Management.

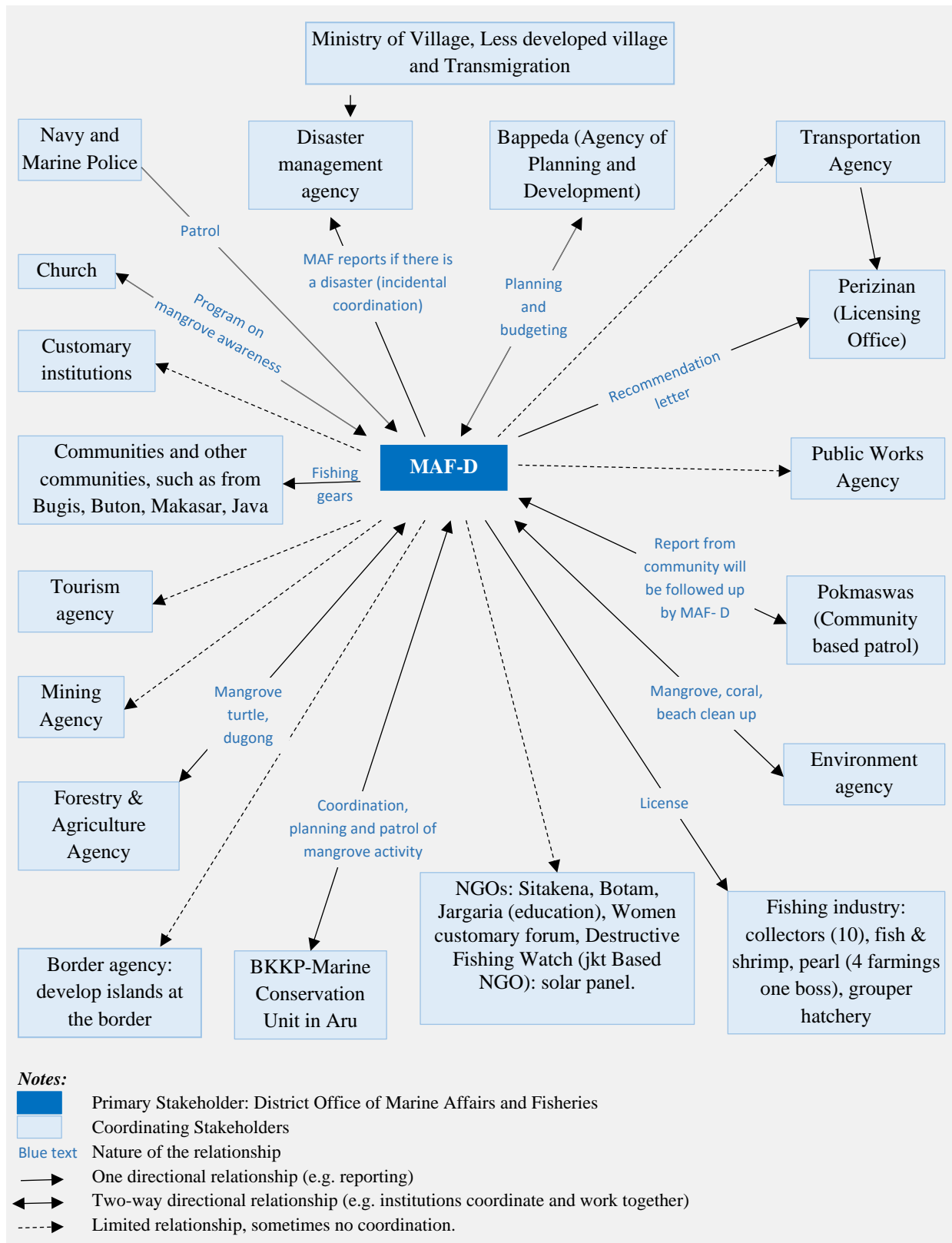
Figure 1 | Administrative map of Kepulauan Aru



Relevant Stakeholders

Several stakeholder groups have interests and activities in coastal and marine natural resources in Kepulauan Aru. These include government agencies, customary institutions, non-governmental organizations, private sector enterprises, and local communities. Figure 2 demonstrates the relationship between the district office for Marine Affairs and Fisheries (designated MAF-D in the figure below) as it is the decentralized office of the related Ministry that is the main government partner in the ATSEA2 project and other district stakeholders in the management of coastal and marine resource related activities.

Figure 2 | Stakeholder relationships with the district office for Marine Affairs and Fisheries



Source: This graphic was developed as a result of discussions with government stakeholders, NGOs on 13-15 October 2015

Subnational governmental agencies and institutions: The main government agency with respect to the project objectives is Department of Marine Affairs and Fisheries (DMAF). Other subnational government agencies and institutions include the Agency of Planning and Development (Bappeda) that works with the DMAF in planning and budgeting; the Transportation Agency that provides recommendations for vessels to

get a license from the Licensing Agency; the Public Works Agency, responsible for infrastructure development activities; the Tourism Agency, responsible for developing local tourism; the Mining Agency, which administers exploration and exploitation of mineral resources; the Forestry and Agriculture Agency, whose responsibility extends to management of mangrove ecosystems; the Disaster Management Agency, which is responsible for responding to emergency situations; the Navy and Marine Police, which both have responsibilities for patrol of marine and coastal waters; the Border Agency, which is responsible for development of outer islands/regions; and the Conservation Unit of the Aru Tourism Marine Park, which is under the central Ministry of Marine Affairs and Fisheries and is responsible for managing the Aru Tourism Park in the south of Aru.

Civil Society Organizations: Several NGOs are active in Aru, including Yayasan Sita Kena, the organization that implemented a demonstration intervention as part of the ATSEA 1 project. Other organizations include Botam and Jargaria, both specializing in education. Destructive Fishing Watch is another NGO in Aru that facilitates the establishment of community groups in managing solar panel activities in Panambulai Island. Religious organizations also increase awareness of followers on mangrove and coastal resources. The Women Customary Institution (*Forum Perempuan Masyarakat Adat*) is an organization that unites women in advocating their rights with respect to customary systems in Aru.

Private Sector: Private sector enterprises are mostly active in the fishing and mariculture industries, including ten fishing collectors in Aru, four pearl farms owned by one entrepreneur, and a grouper hatchery in the north of Aru.

Access and Electricity

The capital city of Kepulauan Aru is Dobo, located on Womar Island, off the northwest coast. Dobo is approximately 400 nautical miles from Ambon, the provincial capital, and can be reached in two hours by airplane, eight hours by State owned ferry (sails weekly), or 17 hours by ferry with a transit in Tual.

Electricity infrastructure in the district is limited, with only Dobo and Jerol having electricity lines. The total number of houses connected with electricity was 6,752 houses in 2013 (BPS Kabupaten Kepulauan Aru 2014). Other areas sometimes use their own generators, for example 4-5 houses in a particular village, but the majority of rural areas have no electricity.

Demographics

Based on the 2010 population census, the total population of Kepulauan Aru was 88,138 with 43,664 males and 40,474 females. Based on population projections, the number of inhabitants rose to 88,739 people in 2013, with 45,907 males and 42,832 females (BPS Aru 2014). The population growth rate from 2000 to 2010 was 2.83% (BPS Kabupaten Kepulauan Aru 2014). In 2010, there were 15,912 households in Kepulauan Aru district with 5.2 people on average per household. Based on population projections for 2013, the percentage of people under 15 years old was 36.2% (35.8% of total males and 36.7% of females) while the percentage of people over the age of 55 years old comprised 7.7% of the population (7.6% of total males and 7.8% of females). Within the 7-12 age group (considered the age of basic education), around 98.39% attend school, while approximately 88.9% of 12-15 year olds attend school. The poverty line in Aru was IDR 248,436 (approximately USD 27) per month in 2012. 27.34% of the total population of Kepulauan Aru lived under the poverty line in 2013, making it the sixth poorest district in Maluku Province in 2013 (BPS Kabupaten Kepulauan Aru 2014).

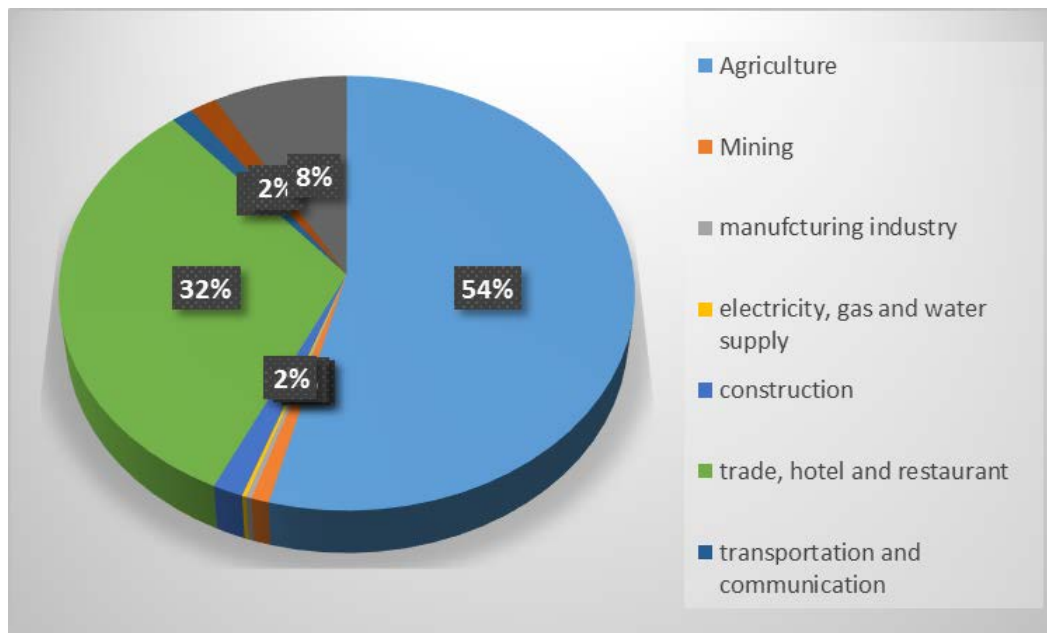
The Human Development Index for Kepulauan Aru was calculated to be 70.91 in 2013, which was 9th in Maluku province (BPS Kabupaten Kepulauan Aru 2014). Based on the Food Security and Vulnerability Atlas developed by United Nations World Food Programme (WFP), Aru is categorized as highly vulnerable to food insecurity where the attributes are poverty, no access to electricity, high underweight children less than five years old (40.2%), and a lack of clean water (WFP 2009). The percentage of people below the poverty line was 36.68% in 2009, and 63.31% of total houses were without electricity that year (WFP 2009).

Kepulauan Aru has one hospital and 28 health clinics, with at least one in each sub district. The ratio of health staff to the total population is 1:320. Typical diseases found in Aru include respiratory illness, skin conditions, diarrhea, and malaria.

Economy and Livelihoods

The Gross Domestic Product (GDP) of Kepulauan Aru in 2014 was IDR 2.4 trillion (USD 200 million) (BPS Aru 2015). Agriculture, which includes fisheries, dominates the Aru economy, contributing 54% to GDP (BPS Aru 2014). Within the agriculture category, fisheries contribute 89.5%, followed by agricultural products that contribute 10%. The remainder is attributed to forest products (BPS Kabupaten Kepulauan Aru 2015 GDP Aru 2010-2014). Trade, hotels and restaurants contribute 32% to GDP (Figure 3).

Figure 3 | Gross Domestic Product for Kepulauan Aru in 2013.



Source: BPS Kabupaten Kepulauan Aru 2015 GDP Aru 2010-2014

Fish production contributes IDR 18 billion (approx. USD 1.725 million) to the Aru economy (DKP Kabupaten Kepulauan Aru 2015). There are 36,880 fishers registered in Aru (DKP Kabupaten Kepulauan Aru 2015). No gender disaggregated data on fishery production are available. In Aru there are 878 boats with no engine; 2,672 boats with outboard engine; and 3,548 boats with inboard engine. During discussions with DMMAF staffs and fishers in Aru in October 2015, they considered the main fisheries were shrimp and demersal fish. Fishers also caught mud crab, lobster and sea cucumbers. Fishers captured shrimp using mini trawl. Since the banning of trawl fishing, fishers in Ujir, Balatan and Babi Island changed to long line. Gear for catching demersal fish is predominantly hand and line fishing. Trammel net was mostly used by fishers in central and south Aru (Iebulega, Goda-goda, Tungu). Small pelagic fish were caught using mini purse seine with a mesh size of 1¾ inches for scad (Kembung family) or a mesh size of 5 inches for Mackerel.

Production of seaweed in Kepulauan Aru was 5,935 tons in 2014. The biggest production came from the Subdistrict of North East Batuleya 1,559 tons in 2014 (DKP Kabupaten Kepulauan Aru 2015).

Kepulauan Aru District also produces dry land rice paddy, with a production of 3.5 tons in 2013 (BPS Aru 2014). Other crops include maize, cassava, sweet potato, peanut, dan mung beans. Kepulauan Aru also produces coconut, with 3482 tons produced in 2013 (BPS Aru 2014). Chicken is the dominant livestock in Aru.

Per capita income in Aru in 2012 was IDR 6,001,520 (USD 641 per month). The monthly per capita expenditures in Aru in 2013 was IDR 658,283. Around 55%, IDR 361,989, was spent for food and IDR 296,295 (45%) were spent for non-food expenditures.

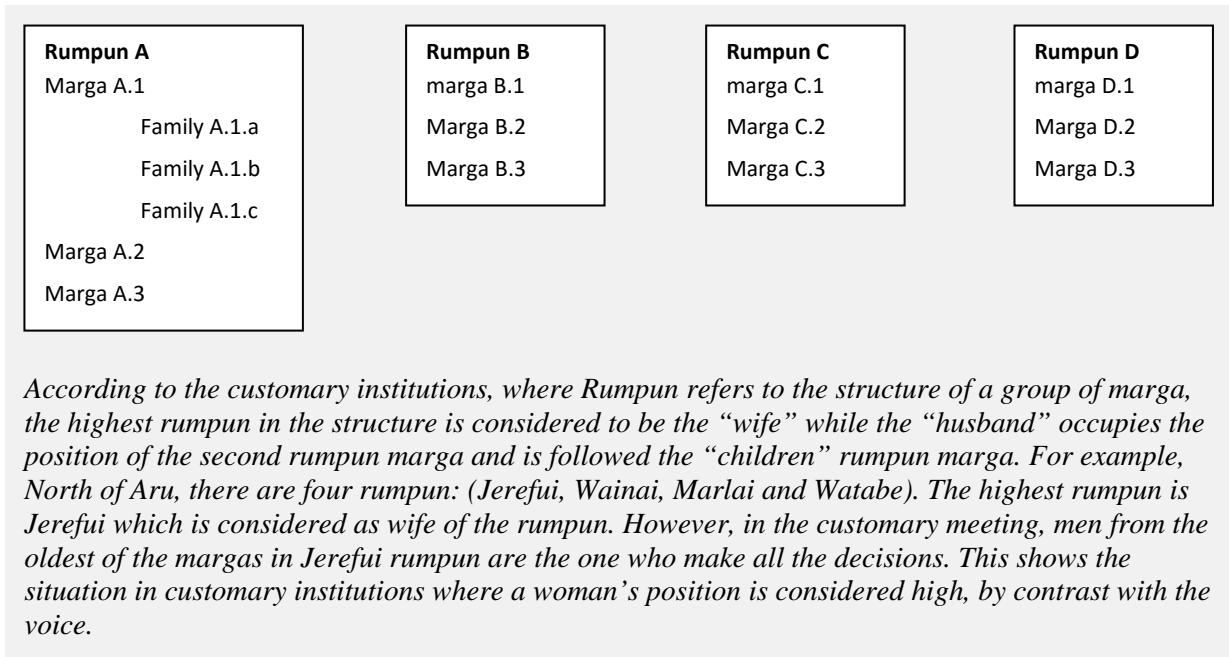
Gender Issues and Women's Participation in Coastal Management

The labor force in Kepulauan Aru in 2013 was 36,022 people, 32% of which were women. Most people work in agriculture, which includes the fishery sector, and others work in construction, trading, and services. Within the labor force, there are 847 people unemployed in 2013, 45% of whom were women (BPS Kabupaten Kepulauan Aru 2014). Although there is no official record of sex disaggregated data, women do

fish in Aru, especially in the northern and eastern parts. Going out in groups of 5-6 women in the evenings, they catch halfbeak *Hyporhamphus spp* (local name balobo) using a torch and scoop net (Balobe). Women in Gomarmeti village use dugout canoes; women in Longgar Aparara use boats with outboard engine less than 7-hp; and women in Mesiang and Bemun villages go for fishing by wading in the intertidal waters. In Gomarmeti, women also collect blue swimming crab and abalone. In addition, women are also engaged in fish processing, sun-drying fish, and making shrimp paste to sell in local markets.

While the livelihoods of women in Aru are directly linked to the water, in the customary management system women tend not to participate in the decision-making process on marine tenure or coastal resource management. Decisions are mostly made by the head of the marga (family groupings) and village, who are almost exclusively male.

Figure 4 | An Illustration of customary institutions in Aru



According to the customary institutions, where Rumpun refers to the structure of a group of marga, the highest rumpun in the structure is considered to be the “wife” while the “husband” occupies the position of the second rumpun marga and is followed the “children” rumpun marga. For example, North of Aru, there are four rumpun: (Jerefui, Wainai, Marlai and Watabe). The highest rumpun is Jerefui which is considered as wife of the rumpun. However, in the customary meeting, men from the oldest of the margas in Jerefui rumpun are the one who make all the decisions. This shows the situation in customary institutions where a woman’s position is considered high, by contrast with the voice.

Women in Aru realize their voice is not considered in this customary system, and in response, several people have established a forum of women to advocate for their rights in the customary system, called Konarjari or Forum Perempuan Masyarakat Adat. Current activities include discussions to improve awareness and strengthen the organization. The Botam Foundation and Sitakena actively undertake activities in women’s empowerment. According to DKP of Maluku province, a project under PEMP/Pemberdayaan Ekonomi Masyarakat pesisir (Economic empowerment for coastal communities) covered women’s empowerment through fish processing. The PEMP project ended in 2010. The District government also conducted other projects on fish processing to improve the capacity of women producers of shrimp paste, sundried fish (halfbeak) and handicraft. Only a small-scale shrimp paste industry is still in operation now.

This Forum Perempuan Masyarakat Adat is one way to integrate women’s participation in the coastal and marine management. It must be noted that by law No. 6/2014 on Village Government, the participation of women in the BPD/Badan permusawarahan Desa (Village Discussion Forum) to plan the village development plan is mandatory (Musrebangdesa/Musyawah Rencana Pembangunan Desa).

Key Species and Marine and Coastal Habitats

Cetaceans and flagship species: Whales found in South and East of Aru are *Balaenoptera musculus* (Blue whale), *Balaenoptera physalis* (Fin whale), *Physeter catodon* (Sperm whale), *Physeter sp.*, dan *Orcinus orca* (Killer whale). Dolphin such as *Tursiops truncatus* was also found in South and East of Aru (DKP Kabupaten Kepulauan Aru, Draft Marine spatial Planning). Sea turtles nest in South of Aru are green turtle (*Chelonia mydas*) and hawksbill (*Eretmochelys imbricata*).

Mangroves, seagrass, coral reefs: Kepulauan Aru is rich with mangrove. Although there is no data on the area of mangrove but all islands are surrounded by mangrove. Species of mangrove found in Aru *Bruguiera*

gymnorrhiza, *Rhizophora apiculata*, *R. stylosa*, *Bruguiera gymnorrhiza*, *Ceriops tagal*, *Xylocarpus* sp, *Osbornia octodonta*, *Acrostikum aureum* (DMAF, Draft Marine Spatial Planning).

There are four seagrass species found in Aru: *Thalassia hemprichii*, *Halophila ovata*, *Cymodocea rotundata*, *Enhalus acoroides*. Within these species, species *Thalassia hemprichii* was found the most in Aru.

Coral reef in Panambulai Islands covers an area occupying 14.54 km by 1.45 km. This consists of 51 hard coral with 22 genera and 10 families (http://www.ppk-kp3k.kkp.go.id/direktori-pulau/index.php/public_c/pulau_info/337 accessed on 31 August 2015). Hard coral cover in Panambulai Island is 42%. The key habitats in small islands Kabupaten Kepulauan Aru is presented in Table 1.

Table 1 | Key habitats in Kepulauan Aru

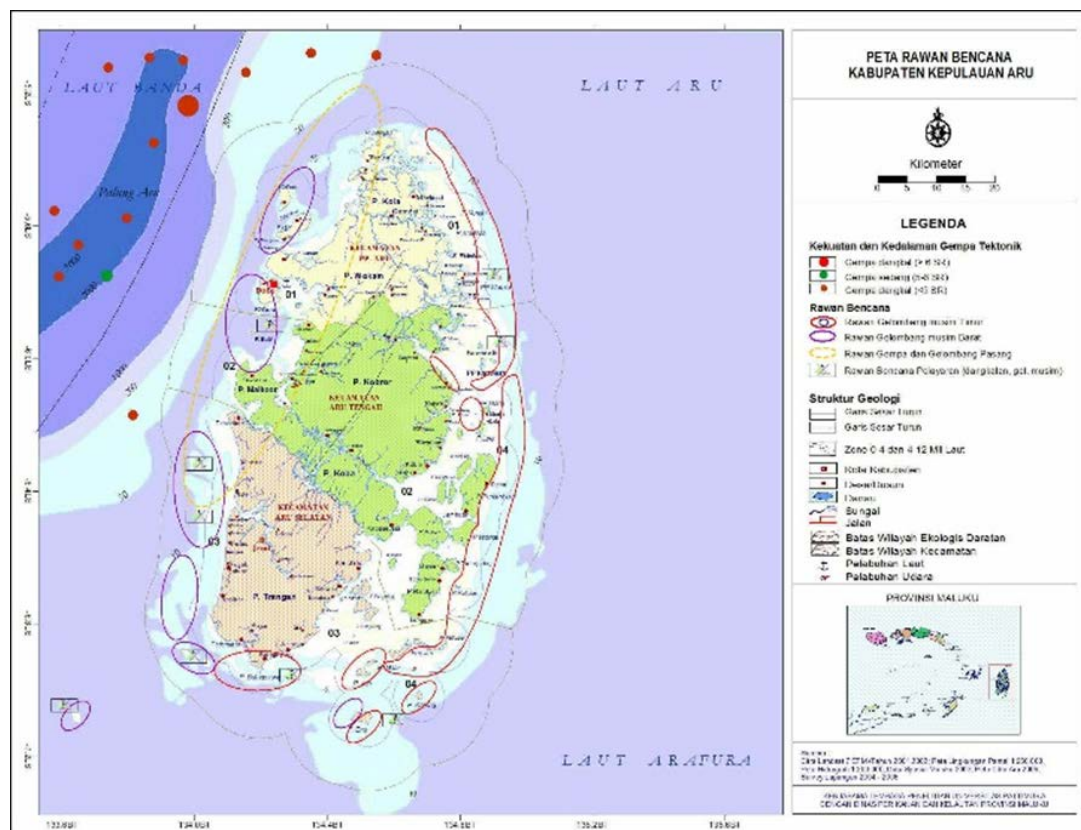
Ecosystem	Ararkula Island	Enu Island	Karang island	Karaweira Island	Kultubai Utara	Kultubai Selatan
Coral reef	Length (L): 9.78km, width (W): 0.19km 24 types of hard coral	60 types of hard coral cover	L= 19.04 km; w=665m	L=13.1 km; w=5m Coverage hard coral= 30%	L=65.21 km; w= 5-50m Hard coral coverage= 26%	L= 3.6km; w= 507m
Mangrove	-	914 ha	1419 km ² 9 species	-	0.515 km ² 10 species	9 species, 85% around island covered by mangrove trees. Area= 2858km ²
Seagrass	-	4 species of seagrass	3 species	6 species	4 species	4 species
Flagship Species		Green turtle	-	-	-	

Source: DKP Propinsi Maluku (2006)

Disaster and Climate Change Vulnerability

Aru typically experiences strong tidal action, with waves almost 6m height, in January and February every year. During the west monsoon, the west coast of Aru experiences strong wind and waves, and during the east monsoon, the east part of Aru experiences strong wave and winds. Both of these events have negative impacts on coastal areas. Anchored boats have to moor on the east or west coast of Aru depending on the wind. Based on the district disaster risk map, Aru is vulnerable to the impacts of high tide and strong wind and wave (Figure 5).

Figure 5 | Vulnerability Map of Aru



Source: DMAF (Draft marine Spatial planning Aru)

Indonesia's Climate Change Vulnerability Index (Sistem Informasi Data Indeks Kerentanan Perubahan Iklim (SIDIK) is an information system that combines data on exposure and sensitivity to climate change, adaptive capacity, coping range, and the risk of potential impact of climatic events (such as flooding). According to SIDIK, Maluku province is labelled yellow and thus categorized as vulnerable enough to climate change due to yearly droughts, floods and a lack of resources/assets to cope with the vulnerable situation (SIDIK. Access on 27 Sept 2015).

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Proposed Intervention No. 1					
EAFM, red snapper: Reduced fishing pressure and improved fishing gear/techniques					
1. Thematic Area	EAFM				
2. ATSEA2 Outcome	The activity is proposed under 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				
3. Target Communities and Site Description	Country: Indonesia	Province: Maluku	District: Aru Archipelago		
	Area of Coverage:	491,536 ha			
	<p>The target communities are located at the 4 sub-districts in Kabupaten Kepulauan Aru (District of Aru Archipelago) namely: Aru Islands, South Central Aru, East Central Aru, and East South Aru Sub-districts. Note that last three sub-districts are on the eastern side of the Island, where Aru Islands sub district is on the west side. Aru Islands sub-district, in which Dobo is located has been selected for its role as the capital of the Kabupaten and thus has high intensity of economic and trade activities. The majority of fishers live in this area and they sell their products at the local market and retailers in Dobo.</p> <p>Direct beneficiaries include a selection of red snapper fishermen and their wives (with the assumption that 75% are married). Indirect beneficiaries include all fishermen in Kabupaten Aru and their wives – with the same assumption of 75% married.</p>				
	Beneficiaries		Women	Men	Total
	Approximate number of direct beneficiaries:		8,681	11,574	20,255
	Approximate number of indirect beneficiaries:		13,830	18,440	32,270
4. Baseline	<ul style="list-style-type: none"> - Kabupaten Kepulauan Aru is part of FMP 718 that plays significant role in Red Snappers production in Indonesia, contributing up to 50% of the total production (10,656 tons) in 2013 - Mangrove and corals coverage in this area made up to 98,480 Ha - Demersal Fish biomass is totaling to 23,483 ton/yr 				
5. Intervention Description	<p>Baseline assessment (stocks, fish profile).</p> <p>Develop indicators.</p> <p>Develop an EAFM plan and facilitate approval/endorsement – Resulting in Draft local regulation (PERDA)</p> <p>Establish a management authority – As part of the FMP 718 branch office</p> <p>Implement: capacity building, pilot measures such improved gear/techniques, temporal and/or spatial closures</p> <p>Monitoring and evaluation</p> <p>Support the newly launched Data and Statistic Improvement Program towards catch-based data</p>				
6. Rationale (Problem Identification)	<p>IUU fishing was a major problem in Aru. The illegal fishing has been significantly reduced by the implementation of fishing moratorium imposed by MoMAF. However, the unreported activities from several fisheries are still practiced.</p> <p>Potential misreported on snapper production due to fishers from other island and provinces are fishing in Aru.</p> <p>No management plan – lack of preparedness.</p> <p>Inefficient gear/techniques</p>				

Proposed Intervention No. 1		
EAFM, red snapper: Reduced fishing pressure and improved fishing gear/techniques		
7. Target Beneficiaries	Target beneficiaries will be the fishers groups from 4 sub-districts	
8. Expected benefits	Reduced fishing pressure and decreasing ecosystem impacts, e.g., impacts on predators and localized depletion – sustainable recruitment of stock Framework for replication of improved management of other demersal fisheries	
9. Proposed Implementation Arrangements	District Fisheries Official in coordination with the Management Authority of FMP 718 Training/capacity: fisheries management (e.g., WWF, etc.) Stock assessment: Balitbangkan,	
10. Proposed specific activities	Trial gear/technique implementation. Logging, measurement at landing sites – fish data collection Training of enumerators Regional exchange – also including other areas in Maluku and Papua	
11. Activity Outputs	TOR for Management Authority Stock Assessment Fisheries Profile Stakeholder mapping EAFM Plan – Aru Red Snapper Fishery Monitoring Reports Case study	
12. Indicators	Indicator	End of Project Target
	% vessels applying improved gear/techniques – shift from trawl to Bottom Long line	50%
13. Monitoring and Evaluation Criteria	Uptake by fishers of the proposed improved gear/techniques Replication in other areas Increase in Central funding to Management Authority	
14. Risk Factors	Low interest by fisheries – moderate/high	
15. Risk Mitigation	Up-front training – coordinate with other projects/initiatives in the region to work together Involvement of local leaders and implementing traditional “Sasi” and “Pela” customary law	
16. Links with Other Initiatives	USAID-SEA Project: e.g., EAFM training COREMAP ISLME Project ReBYC II	
17. Approximate Cost	USD 50,000	

Proposed Intervention No. 2					
EAFM, red snapper: Reducing turtle bycatch					
1. Thematic Area	EAFM				
2. ATSEA2 Outcome	The activity is proposed under 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				
3. Target Communities and Site Description	Country: Indonesia	Province: Maluku	District: Aru Archipelago		
	Area of coverage: 132,659 Ha This intervention will target the fishers in East-South Aru sub district, covering Enu Island, known as turtle nesting ground				
	Beneficiaries		Women	Men	Total
	Approximate number of direct beneficiaries:		1532	2042	3574
	Approximate number of indirect beneficiaries:		13830	18440	32270
4. Baseline	Moratorium on Trawl fishing in Indonesia Number of line fishing and gillnet in East-South Aru is approximately 663 units Management Plan of SE Aru MPA				
5. Intervention Description	Training for sea turtle handling and release Introduction of circle-hook to Line fishers and other improved gear technology Awareness raising through social media campaign and education Training to eliminate ghost-net incident				
6. Rationale (Problem Identification)	Turtle population globally is declining Turtle harvest in Aru is still exist due to high demands from local people for culinary purpose Ghost net from gillnet as fishing are taken place in the turtle nesting beach Lack of integrated effort in turtle conservation among MPAs in ATS				
7. Target Beneficiaries	Fishers (line fishing and gillnetters) from East-South Aru sub-district MPA managers in ATS especially on Turtle conservation management				
8. Expected benefits	Increased knowledge and skill on turtle bycatch Reduced ghost-net incidents Replication activity in other area in FMA 718				
9. Proposed Implementation Arrangements	Project will engage in a collaboration with WWF				
10. Proposed specific activities	Training on fisher groups Workshop to discuss issues related with MPA network especially on turtle conservation				
11. Activity Outputs	Increased awareness by local community of turtle conservation 50 fishers will be trained in handling and release turtle bycatch as well as in using circle-hook Improved guideline on turtle by catch reduction for SE Aru Management Plan				
12. Indicators	Indicator	End of Project Target			

Proposed Intervention No. 2 EAFM, red snapper: Reducing turtle bycatch		
	Training module developed Guideline for SE Aru MPA developed	50 fishers trained in handling and release turtle bycatch as well as in using circle-hook 25% of line fishers use circle hooks
13. Monitoring and Evaluation Criteria	Number of fishers involved	
14. Risk Factors	Low participation by fishers Lack of sustainability of the program	
15. Risk Mitigation	Early consultation with the community on the concept of conservation Apply "Sasi" practices on Turtle	
16. Links with Other Initiatives	COREMAP ReBYC II	
17. Approximate Cost	USD 25,000	

Proposed Intervention No. 3 FIP, red snapper: Fisheries improvement project (alternative livelihoods)					
1. Thematic Area	Fisheries Improvement Project				
2. ATSEA2 Outcome	The activity is proposed under 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				
3. Target Communities and Site Description	Country: Indonesia	Province: Maluku	District: Aru Archipelago		
	Area of Coverage:	272,518 ha			
	Sub-districts: Aru Islands and South Central Aru				
	Beneficiaries		Women	Men	Total
	Approximate number of direct beneficiaries:		5,880	7,840	13,720
	Approximate number of indirect beneficiaries:		13,830	18,440	32,270
4. Baseline	<p>Number of fishers in these 2 sub-districts are the majority compared to other sub-districts in Aru</p> <p>Number of Line fishing gear are 4055</p> <p>1320 fishers groups have been established in these 2 sub-districts</p> <p>Dobo is the center of economic activities in Aru</p> <p>Sustainable Fisheries Partnership (SFP) has been working with PT Intan Seafood to conduct FIP on Red Snapper from Arafura Sea, Specifically with fishers from Probolinggo (East Java). Local fishers from Arafura Sea are not part of this project.</p>				
5. Intervention Description	In partnership with Sustainable Partnership Program (SFP) and Private company like PT. Intan Seafood, the project will continue the FIP on Red Snapper by conducting pre-assessment activities based on the MSC guidelines				
6. Rationale (Problem Identification)	<p>Red Snappers are highly economic species that have been targeted in Arafura Sea.</p> <p>Red Snapper Stocks are highly exploited and required sustainable management including post-harvest and value-chain analysis</p> <p>Value added at fisher level is low, most of the fish products are dried or salted</p>				
7. Target Beneficiaries	<p>Line Fishers in 2 sub-districts</p> <p>Private companies (Retailer and Processing) that are focusing on buying fish (Snappers) from fishers in Aru</p>				
8. Expected benefits	<p>Improved fishing practices</p> <p>Reduced by-catch</p> <p>Provide added-value to products that will improve fishers income</p>				
9. Proposed Implementation Arrangements	<p>The project will contract out independent technical consultant (or MSC Assessor) to conduct the pre-assessment on Red Snapper Fishery in Aru, which includes a provision to value-chain analysis.</p> <p>The Action plans resulted from the fishery pre-assessment, will be included as part of the government program through series of consultations with the Kabupaten and Provincial fisheries officials</p> <p>National Project Coordinator would coordinate with relevant agencies, NGOs and</p>				

Proposed Intervention No. 3 FIP, red snapper: Fisheries improvement project (alternative livelihoods)		
	private sectors to ensure effective implementation of the activities.	
10. Proposed specific activities	<p>With input from the SPF, assemble a FIP technical working group to oversee the FIP activities under this outcome, and to also contribute to institutional capacity building</p> <p>Establish electronic database linking to traceability and trade at district and national levels, through training for Observers and on methods to complete Log-Books</p> <p>Facilitate and conduct pre-assessment activities based on the MSC guidelines on Red Snapper fishery in Aru.</p>	
11. Activity Outputs	Pre-assessment report and action plans developed of Red Snapper fishery that will be required to enter MSC certification process	
12. Indicators	Indicator	End of Project Target
	Alternative Livelihoods	600 (including 300 women)
13. Monitoring and Evaluation Criteria	<p>Number of fishers group participated</p> <p>Number of private companies involved and the total amount of support they provided</p> <p>Percent change in fishing and handling practices by fishers involved in this program</p>	
14. Risk Factors	Sustainability of this program at Kabupaten and Provincial level	
15. Risk Mitigation	Integrate FIP Action Plans into the government program	
16. Links with Other Initiatives	<p>SFP</p> <p>WWF...</p> <p>ReBYC-II</p>	
17. Approximate Cost	USD 75,000	

Proposed Intervention No. 4					
EAFM, shrimp: Reduced fishing pressure and improved fishing gear/techniques					
1. Thematic Area	EAFM				
2. ATSEA2 Outcome	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				
3. Target Communities and Site Description	Country: Indonesia	Province: Maluku	District: Aru Archipelago		
	Area of Coverage:	272,518 ha			
	Target areas for this intervention will be in 2 sub-districts including: Aru Islands and South-Central Aru. In these 2 sub-districts fishers activity for shrimp fishing are relatively high in the area close to Dobo in Aru Island sub-district and Warabal on Penambulai Island, in South-Central Aru sub-district				
	Beneficiaries		Women	Men	Total
	Approximate number of direct beneficiaries:		5880	7840	13720
	Approximate number of indirect beneficiaries:		13830	18440	32270
4. Baseline	<p>Number of fishers: 7840</p> <p>Warm-water shrimp fishery has >75% by-catch rate</p> <p>Moratorium on trawl fishing has resulted in the increased use of trammel nets for shrimp fishing</p>				
5. Intervention Description	<p>Baseline assessment (stocks, fish profile).</p> <p>Develop indicators.</p> <p>Develop an EAFM plan and facilitate approval/endorsement – Resulting in Draft PERDA</p> <p>Establish a management authority – As part of the FMP 718 branch office</p> <p>Implement: capacity building, pilot measures such improved gear/techniques, temporal and/or spatial closures</p> <p>Monitoring and evaluation</p> <p>Support the newly launched Data and Statistic Improvement Program towards catch-based data</p>				
6. Rationale (Problem Identification)	<p>IUU fishing was a major problem in Aru. The illegal fishing has been significantly reduced by the implementation of fishing moratorium imposed by MoMAF. However, the unreported activities from several fisheries are still on going</p> <p>Potential misreported on snapper production due to fishers from other island and provinces are fishing in Aru.</p> <p>No management plan – lack of preparedness.</p> <p>Inefficient gear/techniques -</p>				
7. Target Beneficiaries	Target beneficiaries will be the fishers groups from 2 sub-districts				
8. Expected benefits	<p>Reduce Fishing pressure and decreasing ecosystem impacts, e.g., impacts on predators and localized depletion – sustainable recruitment of stock</p> <p>Framework for replication of improved management of shrimp fisheries ...</p>				

Proposed Intervention No. 4		
EAFM, shrimp: Reduced fishing pressure and improved fishing gear/techniques		
9. Proposed Implementation Arrangements	District Fisheries Official in coordination with the Management Authority of FMP 718 Training/capacity: fisheries management (e.g., WWF, etc.) Stock assessment: Balitbangkan,	
10. Proposed specific activities	Trial gear/technique implementation. Logging, measurement at landing sites – fish data collection Training of enumerators Regional exchange – also including other areas in Maluku and Papua	
11. Activity Outputs	TOR for Management Authority Stock Assessment Fisheries Profile Stakeholder mapping EAFM Plan – Aru Shrimp Fishery Monitoring Reports Case study	
12. Indicators	Indicator	End of Project Target
	% vessels applying improved gear/techniques – shift from Trawl to Trammel nets	50%
13. Monitoring and Evaluation Criteria	Uptake by fishers of the proposed improved gear/techniques Replication in other areas Increase in Central funding to Management Authority	
14. Risk Factors	Low interest by fisheries – moderate/high	
15. Risk Mitigation	Up-front training – coordinate with other projects/initiatives in the region to work together Involvement of local leaders and implementing traditional “Sasi” practices	
16. Links with Other Initiatives	USAID-SEA Project: e.g., EAFM training COREMAP ISLME Project ReBYC II	
17. Approximate Cost	USD 50,000	

Proposed Intervention No. 5				
FIP, shrimp: Fisheries improvement project (alternative livelihoods)				
1. Thematic Area	Fisheries Improvement Project			
2. ATSEA2 Outcome	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			
3. Target Communities and Site Description	Country: Indonesia	Province: Maluku	District: Aru Archipelago	
	Area of Coverage:	272,518 ha		
	Sub-districts: Aru Islands and South Central Aru			
		<u>Women</u>	<u>Men</u>	<u>Total</u>
	Approximate number of direct beneficiaries:	5,880	7,840	13,720
Approximate number of indirect beneficiaries:	13,830	18,440	32,270	
4. Baseline	<p>Number of fishers in these 2 sub-districts are the majority compared to other sub-districts in Aru</p> <p>Number of Trawl and Gill net fishers are approximately 1500 people</p> <p>There are 1320 fisher groups established in these 2 sub-districts</p> <p>Dobo is the Central economic activity</p>			
5. Intervention Description	In partnership with Sustainable Partnership Program (SFP) and Private company like PT. Intan Seafood, the project will develop FIP on Shrimp by conducting pre-assessment activities based on the MSC guidelines			
6. Rationale (Problem Identification)	<p>Shrimp are highly economic species that have been targeted in Arafura Sea. Aru is one of the central for large fishing company to operate their fleet.</p> <p>Shrimp Stocks are highly exploited since late 1960s and are required sustainable management including post-harvest and value-chain analysis</p> <p>Value added at fisher level is low.</p>			
7. Target Beneficiaries	<p>Trammel net and mini trawl Fishers in 2 sub-districts</p> <p>Private companies (Retailer and Processing) that are focusing on buying fish (Snappers) from fishers in Aru</p>			
8. Expected benefits	<p>Improved fishing practices</p> <p>Reduced by-catch</p> <p>Provide added-value to products that will improve fishers income</p>			
9. Proposed Implementation Arrangements	<p>The project will contract out independent technical consultant (or MSC Assessor) to conduct the pre-assessment on Shrimp Fishery in Aru, which includes a provision to value-chain analysis.</p> <p>The Action plans resulted from the fishery pre-assessment, will be included as part of the government program through series of consultations with the Kabupaten and Provincial fisheries officials</p> <p>National Project Coordinator would coordinate with relevant agencies, NGOs and private sectors to ensure effective implementation of the activities.</p>			

Proposed Intervention No. 5 FIP, shrimp: Fisheries improvement project (alternative livelihoods)		
10. Proposed specific activities	<p>With input from the SPF, assemble a FIP technical working group to oversee the FIP activities under this outcome, and to also contribute to institutional capacity building</p> <p>Establish electronic database linking to traceability and trade at district and national levels, through training for Observers and on methods to complete Log-Books</p> <p>Facilitate and conduct pre-assessment activities based on the MSC guidelines on Shrimp fishery in Aru.</p>	
11. Activity Outputs	Pre-assessment report and action plans developed of Red Snapper fishery that will be required to enter MSC certification process	
12. Indicators	Indicator	End of Project Target
	Alternative Livelihoods	300 (including 150 women)
13. Monitoring and Evaluation Criteria	<p>Number of fisher group participated</p> <p>Number of private companies involved and the total amount of support they provided</p> <p>Percent change in fishing and handling practices by fishers involved in this program</p>	
14. Risk Factors	Sustainability of this program at Kabupaten and Provincial level	
15. Risk Mitigation	Integrate FIP Action Plans into the government program	
16. Links with Other Initiatives	<p>SFP</p> <p>WWF...</p> <p>ReBYC-II</p>	
17. Approximate Cost	USD 75,000	

Proposed Intervention No. 6 Strengthening the Forum Perempuan Masyarakat Adat Aru (Women's Forum for Customary Communities in Aru)			
1. Thematic Area	Strengthening sustainable fisheries management for improved livelihoods		
2. ATSEA2 Outcome	The activity is proposed under Project Outcome 2.1: Improved management of fisheries and other coastal resources for livelihoods, nutrition and ecosystem health in Indonesia and Timor Leste as part of Output 2.1.1 related to the Ecosystems Approach to Fisheries management (EAFM) activities.		
3. Target Communities and Site Description	Country: Indonesia	Province: Maluku	District: Aru Archipelago
	This is a district level activity proposed for Aru, Indonesia, where traditional fishing practices tend to leave women out of the decision-making process regarding coastal and marine management, despite the economic importance (and dependence) of women in this sector. Community specific engagement for this activity will take place in those communities participating in EAFM and will be identified as suitable and willing to participate in the activities proposed at the start of the project implementation phase.		
	Approximate number of direct beneficiaries:		50
4. Baseline	<ul style="list-style-type: none"> - Although there are no available gender disaggregated data, stakeholder consultations have revealed that women in Aru are highly dependent upon fishing for livelihoods, especially in the northern and eastern parts, and they are also involved in fish processing - Climate change will likely impact coastal marine resources and thus might have negative impacts on activities undertaken by both women and men in coastal areas - The primary coastal management practice for making decisions regarding fisheries and coastal resource management in Aru is through customary institutions based on the Marga structure (a sub-division of the Aru ethnic group, each organized according to a traditional hierarchy); each Marga has its own marine tenure controlled through this customary decision-making structure - As per the Marga structure, there are no representatives of women's interests included in the decision-making process regarding coastal and marine management; yet they are important resource users as well as household level budget managers. - Women possess a unique understanding of the coastal and marine system as users; and are well positioned to improve understanding of livelihood, budget and family wellbeing associated with impacts of the change on resource availability - Recognizing their lack of voice, some Aru women established a forum in Dobo to improve female participation in decision-making, but the group is still incipient 		
5. Intervention Description	<p>The goal of this activity is to enable women to have a better position in the customary coastal management institutions, participate in the decision making process and advocate for women's rights in coastal and fisheries management.</p> <p>The forum Perempuan Masyarakat Adat Aru was established in 2015 and has activities focused on raising awareness about women's rights regarding the use of resources and current practices. The Forum is a women's group that meets in Dobo, the capital of Aru Islands district. Members are women from each of the sub-districts. The organization still requires further strengthening to improve organizational management, to enhance their skills regarding marine and coastal resource management in the face of climate change, and to support them to integrate</p>		

Proposed Intervention No. 6 Strengthening the Forum Perempuan Masyarakat Adat Aru (Women's Forum for Customary Communities in Aru)	
	<p>their activities in the wider coastal management context. The project will:</p> <ul style="list-style-type: none"> - Enhance the existing forum's skills in organizational management, natural resource management and climate change adaptation, through participation in the planned socio-economic vulnerability study planned under Component 1 of the project. - Facilitate women from at least 5 communities to participate consistently in the forum and report back to women in their communities. - Funding will be provided to facilitate semi-annual meetings for the duration of the project and to support the Forum to engage with the customary communities' decision-making bodies in at least 5 communities. - After three years, the forum is expected to be self-sustained.
6. Rationale (Problem Identification)	<p>Customary institutions play a significant role in managing Aru's fisheries and other coastal and marine resources. While women rely heavily on coastal and marine resources, they lack position in customary institutions and thus have less opportunity to advocate for their needs. This propagates a poor understanding of women's use of the resource and their rights to do so, with consequences for the household budget and sustained livelihoods.</p> <p>Coastal and marine zoning. The customary institutions (marga) often rent the marine area to the private sector – who reportedly often forbid women from collecting resources from the shoreline (women mostly do subsistence food gathering). And when the leaders get payment, they will distribute to all households without discussing with the community – no clear previously agreed upon allocation of resources. Decision making is with Marga leaders structure (where no women are involved).</p> <p>Climate change is forecasted to result in reduced availability not only of open water marine resources, but in particular of coral reef and coastal marine resources, on which women's activities are mainly based. Strengthening communication and collaboration between men and women in the community has a potential to lead to better understanding of current activities and thus potential impacts of change on the entire resources base. Better collaborations could also lead to increases in the community social capital overall, facilitating development of the holistic, more widely beneficial adaptation solutions. Thus, as part of a more holistic approach to addressing poverty and promoting sustainable fisheries management, this activity will endeavor to promote the involvement of women in decision making regarding coastal and marine management.</p>
7. Target Beneficiaries	<p>The immediate beneficiaries are the women who take part in the forum, through improved self-confidence and decision-making skills.</p> <p>Indirect beneficiaries include male members of the customary institutions, as well as the community at large, who will all benefit from better understanding of the current resource base and therefore improved ability to plan and manage for the future resource use that takes into account all resource users and the resulting benefits.</p>
8. Expected benefits	<p>Women are significant users and stewards of the marine and coastal resources around Aru Island. However, their resource use – and the resulting benefits to family livelihoods – is poorly understood by the community at large, and in particular by the male-dominated traditional decision making institutions. Increasing community understanding of the women's activities and their role in family budget can play an important role in establishing a respected and empowered position for women, both within the household and in the community. Through improved communication,</p>

Proposed Intervention No. 6 Strengthening the Forum Perempuan Masyarakat Adat Aru (Women's Forum for Customary Communities in Aru)		
	<p>human capacity in the communities will be enhanced through training and other activities that bring people together for improved resilience.</p> <p>Improved communication about resource base and use is also expected to have positive effects on the marine and coastal ecosystems as the more holistic understanding of the actual overall community resource use (rather than just use by men) might lead towards improved resource management in the long term.</p>	
9. Proposed Implementation Arrangements	<p>A potential partner for this activity is AMAN, an alliance of customary Communities in Indonesia. AMAN could support the forum in integrating their activities in the wider customary institution context.</p> <p>Yayasan Sitakena (NGO from ATSEA1) is a possible local implementing partner (Naemael_sitakena@yahoo.co.id)</p> <p>The Coral Triangle Center is another potential partner to provide in-kind contribution and mentoring for the delivery of the training on marine and coastal resources.</p>	
10. Proposed specific activities	<p>Financial and organization support to strengthen the existing forum and support for bringing women from at least 5 communities to Dobo to participate, specifically:</p> <ul style="list-style-type: none"> - Strengthening organizational skills of the forum; - Building consensus and acceptance of women's role in the marine and coastal natural resources (NR) use; and the resulting need for the role in NR management. - Training program on marine and coastal resource management including climate change and adaptation, for both male and female forum/customary institution participants; - Working with the District Department of Fisheries to find an institutional host for the forum; - Specific support for increased participation of women (in both presence and engagement) in customary institutions, including removal of participation barriers such as lack of time; - Financial and human capital support for the biannual meetings of the forum; - Continued training on relevant subjects such as monitoring of resource use, climate change awareness and adaptation, improved fish processing practices etc., would be provided in consultation with and on request by the forum (and in conjunction with the larger ICM/EAFM capacity building program supported by ATSEA2); 	
11. Activity Outputs	<p>The forum is expected to be fully functional and organically and sustainably operational by the end of the project involvement, specifically:</p> <ul style="list-style-type: none"> - Women's role in the marine and coastal natural resources use and management will be accepted and formally acknowledged by the whole of the community; - Several training programs will be delivered, to both male and female forum participants, on subjects such as monitoring of resource use, climate change awareness and adaptation, improved fish processing practices etc. - Participation of women in customary institutions and decision-making processes will improve; - Financial and human capital of the forum will be sufficient to continue its operation beyond the project; 	
12. Indicators	Indicator	End of Project Target
	Raised awareness	50 women
13. Monitoring and Evaluation Criteria	1. Number (%) of women participating in the forum/s	

Proposed Intervention No. 6 Strengthening the Forum Perempuan Masyarakat Adat Aru (Women's Forum for Customary Communities in Aru)	
	<ol style="list-style-type: none"> 2. Number of participants receiving awareness training, disaggregated by gender 3. Level of male and community awareness with regards to links between women's fishing activities and livelihoods and food security – in relation to baseline and disaggregated by gender (%) 4. Perceptions of the community members on the appropriateness of women being involved in the marine NRM – in relation to baseline and disaggregated by gender (%) 5. Institutional changes to the traditional natural resources management practices resulting from women's engagement in the forum
14. Risk Factors	<ul style="list-style-type: none"> - Women unable to engage due to overburdening, including high numbers of dependent children. - Women present at the forum but do not actively participate due to cultural norms. - Uptake of knowledge from training is low and does not result in improvements in quality contribution to customary management even when participation is granted; - Training is not perceived as beneficial by the communities; - Customary institutions are unwilling to accept active participation of women in decision making.
15. Risk Mitigation	<ul style="list-style-type: none"> - Intervention is implemented by a well-respected and dedicated organization with the history of working with the communities in Aru area. - Early consultations with the whole of community, and the women, to ensure the approach is seen as desirable, acceptable and appropriate, and does not take too much of women's time. - Community buy-in will be strengthened throughout the project through involving the community in design, implementation, decision-making and other aspects of Forum operation. - Training and increased awareness of the community and of Magra and Petuanan traditional systems will improve their understanding of the benefits of the new holistic natural resources management approaches.
16. Links with Other Initiatives	<ul style="list-style-type: none"> - Coral Triangle Center (CTC) has conducted training on basic knowledge of marine and coastal resources for women in CT-6 countries. Women from Aru could possibly participate in other CTC supported trainings, or the service providers who have delivered the CTC trainings could be recruited to deliver training to forum members.
17. Approximate Cost	<p>A set of trainings for improving capacity in marine and coastal resources management in the face of climate change and associated awareness will be provided, at the cost of around USD 20,000/training. Facilitating meetings for forum is around USD 1,000/year which means USD 3,000 in total. The total cost of this activity is USD 23,000.</p>

Proposed Intervention No. 7				
IUU Fishing: Community monitoring, control, surveillance				
1. Thematic Area	Community-Based Surveillance			
2. ATSEA2 Outcome	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			
3. Target Communities and Site Description	Country: Indonesia	Province: Maluku	District: Aru Archipelago	
	Total: 291,411 Ha Aru: Fishers in Aru Islands and South-Central Aru sub district			
		<u>Women</u>	<u>Men</u>	<u>Total</u>
	Approximate number of direct beneficiaries:	8,692	6,519	15,211
Approximate number of indirect beneficiaries:	29,120	38,826	67,946	
4. Baseline	Moratorium of Trawl Vessels RPOA on IUU Fishing			
5. Intervention Description	Combat IUU fishing by empowering community participation through MCS activity Conduct analysis on vessel density and movement by using inferential tools and satellite imagery Coordinate with surveillance authority to deploy patrol boats based on vessel catalogue			
6. Rationale (Problem Identification)	Small-scale Illegal and unreported fishing are still common			
7. Target Beneficiaries	Fisheries in general			
8. Expected benefits	Improve information and response to IUU fishing			
9. Proposed Implementation Arrangements	Uncertain at this time; possible collaborate with CSIRO Australia			
10. Proposed specific activities	Established fishers groups Use existing PokMasWas (community-based surveillance groups) to surveil their fishing ground. They will be equipped with small camera that has GPS to take photos of suspicious fishing vessels. Training will be provided prior to the implementation of the intervention Satellite data will be used to identify the vessel (type, movement pattern, time, etc)			
11. Activity Outputs	Image catalogue of different vessels and their movement characteristics Result Analysis will be provided to port authority to monitor vessel movement and support Indonesia compliance on port-state measures			
12. Indicators	Indicator	End of Project Target		
	Reduced fishing pressure	25% reduction on fishing pressure due to elimination of illegal boats		
13. Monitoring and Evaluation Criteria	Number of PokMasWas group Number of fishers involved in the surveillance program Number of illegal boat apprehended			
14. Risk Factors	Lack of support from IUU taskforce What about fishers not being interested? How do we get them involved? Will they be paid? Is it out of the goodness of their hearts?			
15. Risk Mitigation	Conduct early consultation			
16. Links with Other Initiatives	IUU Taskforce 115			
17. Approximate Cost	USD 75,000			

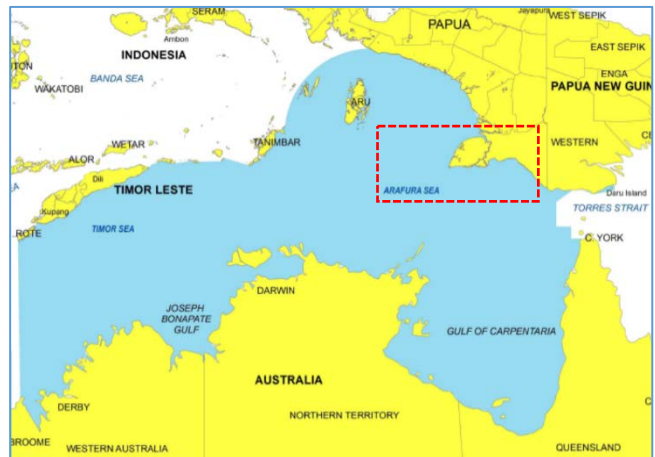
Proposed Intervention No. 8				
MPA, Southeast Aru: Collaborative management (alternative livelihoods)				
1. Thematic Area	Marine Protected Areas			
2. ATSEA2 Outcome	Outcome 2.3 Biodiversity conserved through rehabilitation and protection of coastal and marine habitats and protection of species			
3. Target Communities and Site Description	Country: Indonesia	Province: Maluku	District: Aru Archipelago	
		<u>Women</u>	<u>Men</u>	<u>Total</u>
	Approximate number of direct beneficiaries:	50	50	100
4. Baseline	The area is known for non-compliance with the MPA through illegal activities occurring for economic gain (Dangeubun 2013)			
5. Intervention Description	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 Aparu, Longgar, and Baimun).			
6. Rationale (Problem Identification)	<p>The villages nearest to the MPA do not reside within it, however are dependent on it for food security and livelihoods. It is an area rich in biodiversity, however the key issues in the SE Aru MPA relate to less than adequate management of the MPA. This has led to poor enforcement of illegal fishing and potentially overfishing (for some species) activities, illegal harvest of turtles/turtle eggs and coastal habitats such as mangroves. In addition, external influences such as climate change may also be having an impact. The communities in the area are not involved in the management of the MPA. With activities under ATSEA to strengthen the MPA management, better engaging communities in the process towards co-management may be useful, given the remoteness of the location.</p> <p>With increasing interest in oil and gas from the region, the importance of being prepared to respond to a spill should it occur is important.</p> <p>Access to markets to sell seafood products is difficult due to the distance and lack of cold storage and other equipment for processing to value add to products.</p>			
7. Target Beneficiaries	Three villages nearest to the MPA (villages of Aparu, Longgar, and Baimun)			
8. Expected benefits	<p>Improved management of the SE Aru MPA through co-management activities with the three villages.</p> <p>Improved biodiversity and fisheries outcomes over the longterm.</p>			
9. Proposed Implementation Arrangements	<p>Any co-management activities will need to be lead by KKP, with the support of NGOs like WWF and Balieo.</p> <p>Activities to occur need to be confirmed once consultation with the community is undertaken during the ATSEA project as an initial step.</p>			
10. Proposed specific activities	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			

Proposed Intervention No. 8 MPA, Southeast Aru: Collaborative management (alternative livelihoods)		
	regarding oil spill preparedness and response.	
11. Activity Outputs	<p>Improved access to markets for seafood products through value adding and processing.</p> <p>Improved management of the SE Aru MPA through co-management with local villages through the incorporation of traditional management</p> <p>Improved awareness of the community around marine debris and the impact on protected species.</p> <p>Improved preparedness regarding oil spills.</p>	
12. Indicators	Indicator	End of Project Target
	No of villagers engaged METT score for SE Aru MPA	No of villagers engaged METT score of at least green
13. Monitoring and Evaluation Criteria	<p>No of villagers engaged</p> <p>Improved MET score of SE Aru.</p>	
14. Risk Factors	<p>Lack of engagement of villages</p> <p>Lack of new markets for seafood products</p>	
15. Risk Mitigation	<p>Early discussions with villages to understand their issues and needs to ensure activities are tailored to suit their needs and situation</p> <p>Early discussions with middle men to determine who is likely to be most open to new seafood products.</p>	
16. Links with Other Initiatives	Possibly link up with local NGOs.	
17. Approximate Cost	USD 100,000	

Local Investment: **KABUPATEN MERAUKE**

Papua Province, Indonesia

The local investment in Kabupaten Merauke will support implementation of the fisheries management plan for fisheries area 718, through the introduction of sustainable fishing practices through eco-system based fisheries management of the barramundi fishery and through improved management of the Kolepon MPA.



SITE PROFILE

Geography

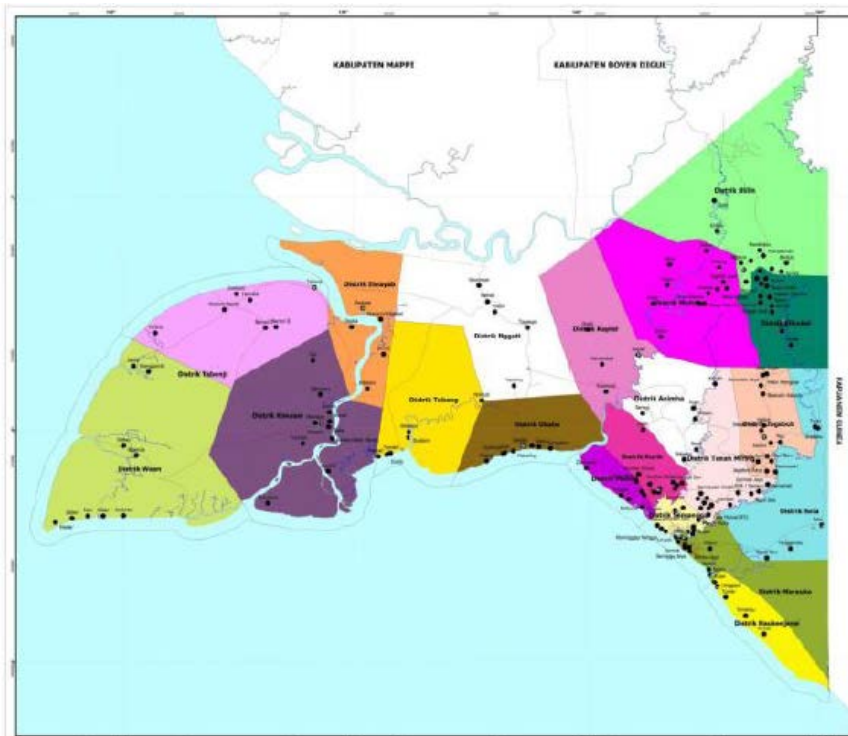
The District of Merauke is located in Papua province between 5° to 9° south latitudes and from 137° to 141° east longitude, in the southern part of Papua Island. The total land area covers 46,791.63km² and the total marine area is 5,089.71 km².

The highest temperature in Merauke is mostly experienced in November and December. In 2014, the highest temperature was around 33°C in November. The minimum temperature recorded was in September, 21°C. From January to April, Merauke experiences rainy season. In September and October, Merauke experience the least rainfall (BPS Merauke 2015).

Administrative Division

Merauke has 20 sub districts and 168 villages. 10 sub-districts, and around 54 villages face the Arafura Sea (Figure 1).

Figure 1 | Merauke Administrative Map



Note: black dot shows the capital of village.

Source: BPS Merauke 2015. Merauke dalam Angka 2015. BPS

Relevant Stakeholders

Several stakeholder groups have interests and activities in coastal and marine natural resources in Merauke. This includes government agencies, non-government agencies, private sectors, and communities (Figure 2).

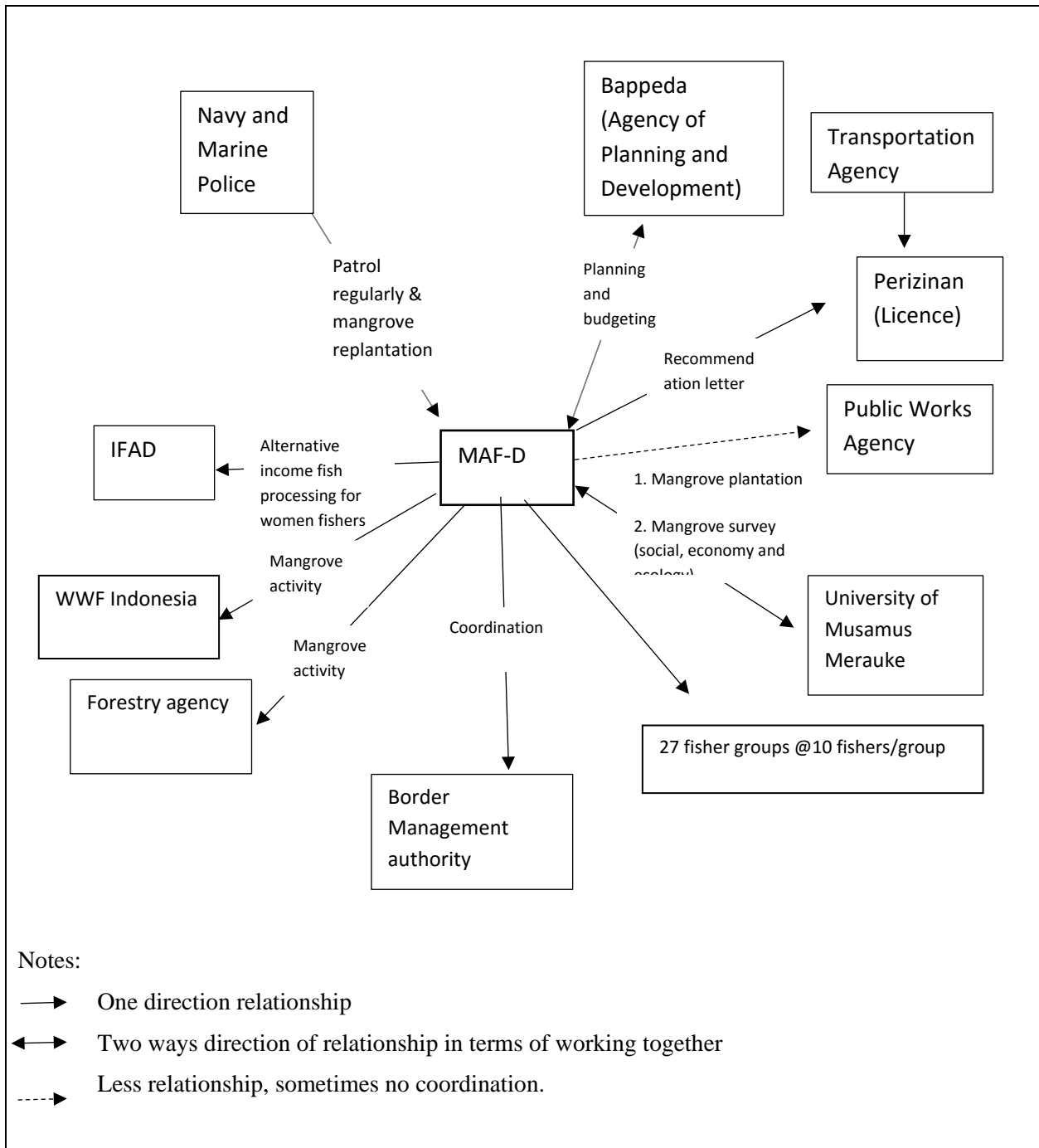


Figure 2: Stakeholder Group Relation Map
(based upon information obtained during a site visit in June 2015)

Subnational governmental agencies and institutions: The main government agency is Department of Marine Affairs and Fisheries (DMAF). Other subnational government agencies and institutions include Agency of Planning and Development (Bappedda) that work with Department of Marine Affairs and Fisheries in planning and budgeting; Transportation Agency that provide recommendation for a vessels to get a license from License Agency; Public Works Agency conducts development activities but the coordination with DMAF is weak at the moment; Forestry Agency have mangrove activity; Border Management Authority also has activity on the coastal and marine areas. This agency mainly support the planning and development of islands at the border. Navy and Marine Police patrol regularly and also have

mangrove replantation; University of Musamus Merauke has mangrove replantation activity and they also conducted a study on the ecology, social and economy of mangrove.

Civil Society Organizations: IFAD has a project that empower women in coastal villages by providing training on fish product processing as alternative income. There are four NGOs working in Merauke but none has marine based activity. WWF Indonesia involved in mangrove replantation. There are 27 fishermen groups in Merauke, each group consists of 10 fishermen. This fishermen mainly used fishing boats less than 30 GT.

Private Sector: Private sectors in fishery are fish product traders and fishing vessels for shrimp fishery.

Access and Electricity

The capital city of Merauke District is Merauke,, located around 1937 km from Jayapura, the capital city of Papua Province. Merauke can be reached by airplane in one hour from jayapura or direct flight from Jakarta around four hours. State owned ferry also comes into Merauke every week.

Of total 168 villages in Merauke District, 72 villages have not had electricity yet (Info Publik 2015). Those villages without electricity are distributed in Kimaam, Waan, Tabonji and Ilwayab sub districts (26 villages); 22 villages in Okaba, Kaptel, Ngguti dan Tubang Sub Districts; and 6 villages in Sub districts Kurik, Marind and Animha.

Demographics

In 2013, the total population of Merauke was 209,980 (BPS Merauke 2014), with 110,388 males and 99,592 females. Most people live in Merauke city, around 45% of the total population. The remaining population is distributed in the other sub districts. The total population in Merauke District consists of 49,461 houses and in average 4.3 people per household. The dependency ratio of people of productive age (15-64 years old) to non productive age (between 0-14 and >64 years old) is 1:57 . There are 102,260 people of productive age and among those 8%, or 9,057 people, are unemployment (BPS Merauke 2014). The literacy rate is 88.5%. Of the 7-12 age group (considered the age of basic education), around 91.8% attend school, as well as around 92% of 12-15 year olds.

The poverty line in Merauke was Rp 261,300/capita/month in 2014 (BPS Merauke 2015). With this poverty line, around 26,000 households of the total households in Merauke (41,580 households) live under the poverty line (BPS Merauke 2015). Around 40% of the total population is considered live under the poverty line, to be in a poor family, 40% in middle class and 20% in the high income group (BPS Merauke 2014). Evidently, the gap between high and low income is quite significant. Among 29 districts in Papua Province, Merauke has the least number of poor people in 2012 (BPS Propinsi Papua 2015). The Human Development Index for Merauke Island is 67.48 (BPS Merauke 2015). The life expectancy in 2013 is 64 (BPS Merauke 2015). Merauke has five hospitals and 21 health clinics, 235 mobile clinics.

Based on Food Security Vulnerability Atlas developed by WFP, Merauke is categorized as vulnerable to food insecurity where the attributes are poverty, no access to electricity, high concentrations of underweight children less than five years old and the lack of clean water (WFP 2009). The percentage of people below poverty line was 31.56%; 31.37% of total houses without electricity and around 22% underweight of children less than 5 years old are underweight (WFP 2009).

People in Merauke followed several religions. Moslem around 42.71% of total population, Catholic 41.13% and Protestant 15.73%.

Economy and Livelihoods

The gross domestic product of Merauke in 2013 was Rp 5.25 billion with an economic growth of 7% (BPS Merauke 2014). As can be seen in Figure 3, Agriculture is the greatest contributor to the economy of Merauke, which is dominated by the production of rice paddy at about 177,581 tons, followed by 5065 tons of cassava and 12,839.74 tons of banana in 2013. The main livestock on Merauke is cattle. Fish production in 2013 is around 7841 tons, which is mainly from marine capture fisheries (88%), followed by freshwater fisheries (12%) (BPS Merauke 2014).

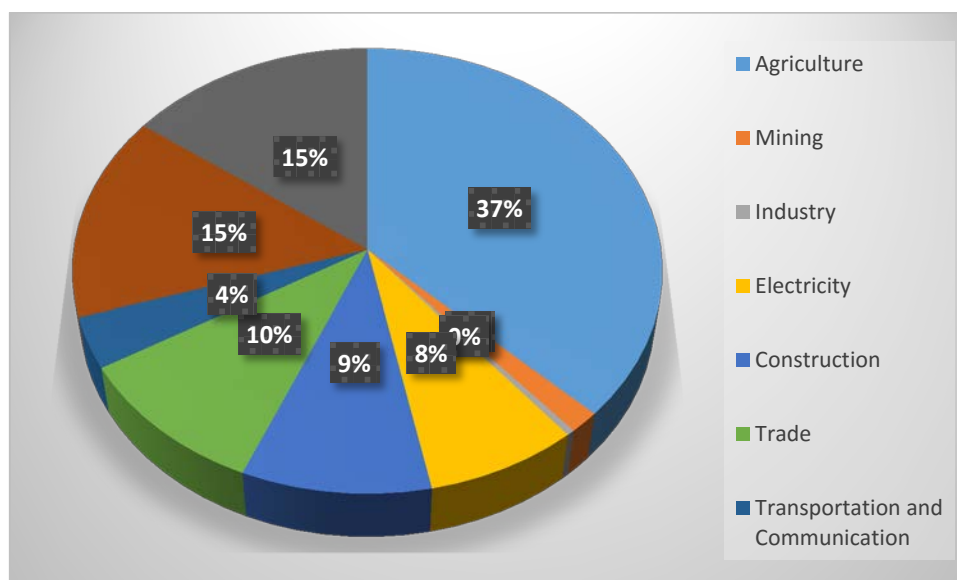


Figure 3: Gross Domestic Product Merauke in 2013.

Expenditure per capita per month in Merauke is Rp 979,182 (about US\$85) with around 50% of the total expenditure spent on food.

Fisheries

Merauke District with an area of 119,749 km², is mostly low-lands and swamps. In 2013, the population of Merauke was 255,022, and 8% of the population or about 20,386 people worked as fishers and fish farmers. The fishers are generally migrants from South Sulawesi, the local people generally are the crew.

The fishing fleet is dominated by boats without a motor. Types of fishing gear vary, with the most common being drift gillnets and fixed gillnets. Fishery production is marketed locally, inter-island and export. Production is in the form of fish skin, fresh fish, bubble fish, shark fins and bones. The Bubble Fish is a typical product of the Merauke district. It comes from the Chinese snapper and common snapper.

Shark fishing to date has not been profitable, thus recommendations to target swim bladders from snapper and barramundi is seen as more beneficial and shark can remain as bycatch. Fishers are currently receiving higher prices for swim bladders compared to shark fin, with less operational cost, as fishers do not have to go as far to catch snappers. Swim bladders are being used in cosmetic surgery and anti-aging products – particularly for export to China and Korea.

Fishers also use millennium nets – a fine-scale mesh inside the net (e.g. tremmel)- but not monofilament (stronger and lighter). The use of millennium net is believed to improve productivity but it catches everything.

Gender Issues and Women's Participation in Coastal Management

By Bupati decree No 417/2013, Merauke has mainstreamed gender issues into the district government organization. This decree outlined gender mainstreaming and setting up a working group on gender issues. By this decree, the government encourages organizations in Merauke to mainstream gender issues into their programs. The Australia-Indonesia Partnership for Decentralisation (AIPD) assessed the participation of women in development in general in 2014. This study found high participation of women in development as can be seen by a relatively large presence in legislative bodies – for example, more than 30% of total parliamentarians are women – however, this study highlighted how the actual decision making in the legislature is dominated by men. The literacy rate of women in Merauke is 85.14%, while the rate of men is 97.64%. The participation of women in basic education is about the same with male participation. However, the participation rate of women at senior high school is 47% while male participation is at 53% (AIPD 2014). AIPD noted that around 50% of women experience domestic violence – an issue that has yet to be strategically solved.

The contribution of women in fisheries is not recognized therefore it is hidden in the statistics. In fact, women contribute significantly to the fishery sector and household food security. In coastal communities,

women collect shells in intertidal waters and mangrove areas. The most favourite product collected is the bamboo clam, which is consumed domestically and sold at market (discussion with Paskalina, WWF Indonesia Merauke Office). Women were seen working at fishing boat in Merauke in June 2015, cleaning and fixing the nets when the boat landed with the fish. They were paid in kind with fish from the fishermen. However, as this work is not recognized as labor in the fisheries information system, there is no data available.

Key Marine and Coastal Habitats

In 2007, Mangrove areas in Merauke is 274,553.8 hectares. This mangrove area includes 258,187.1 hectares of primary mangrove forest and 16,366.7 hectares of secondary mangrove forests. Mangrove species in primary mangrove forest are *Avicennia officinalis*, *Heritiera littoralis*, *Ceriops tagal* dan *Bruguiera parviflora*, while mangrove species in secondary mangrove forests are dominated by *Avicennia alba*, *Avicennia officinalis* dan *Bruguiera gymnorrhiza*, *Ceriops tagal* dan *Avicennia marina* (Prasetyo et al 2012). In Kolepom island, mangrove trees are dominated by *Avicennia*, *Sonneratia*, and *Rhizophora* (Wanadri and Rumah Nusantara 2015). The whole Kolepom Island was surrounded by mangrove trees. Coral reef and seagrass were not found in Kolepom Island based on directory of small islands (KKP, 2015).

Disasters and Climate Change Vulnerability

During the west monsoon, Merauke experiences strong wind and waves. In 2012, the community living along the coastal area had to be moved to other places due to coastal erosion and flooding (Prasetya 2012). The destruction of mangrove areas and the increased frequency of sand mining made the situation worse. The coastal erosion has destroyed houses and roads as the coast line has moved inland. Some replanting of mangrove trees has been attempted but in many cases they couldn't grow before being swept away by waves.

The Sistem Informasi Data Indek Kerentanan Perubahan Iklim (SIDIK) (Indonesia's Climate Change Vulnerability index) is an information system that combines data on exposure and sensitivity to climate change, adaptive capacity, coping range, and the risk of potential impact of climatic events (such as flooding). According to SIDIK, Merauke District is labelled red and thus categorized as highly vulnerable to climate change (SIDIK. Access on 27 Sept 2015)

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Proposed Intervention No. 9				
Barramundi Fisheries Improvement Project (alternative livelihoods)				
1. Thematic Area	FIP			
2. ATSEA2 Outcome	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			
3. Target Communities and Site Description	Country: Indonesia	Province: Papua	District: Merauke	
	Area of Coverage:	18,893 ha		
	The site selected for this intervention is in Sub-District Merauke that serves as the central fishing market for the entire Kabupaten			
		<u>Women</u>	<u>Men</u>	<u>Total</u>
	Approximate number of direct beneficiaries:	639*	852	1491
	Approximate number of indirect beneficiaries:	15,290	20,386**	35,676
*Assumes 75% of local fishers are married. **Total number of fishers registered in Kabupaten Merauke.				
4. Baseline	Number of fishers in this sub-district are the majority compared to other sub-districts Number of set gillnet and trammel net used for this fishery is reaching 9000 units, reflecting almost 50% of total gillnet in used in Kabupaten Merauke			
5. Intervention Description	The project will develop FIP on Barramundi by conducting pre-assessment activities based on the MSC guidelines, in partnership with agencies already working in this area, such as the Sustainable Partnership Program (SFP) and a Private company like PT. Intan Seafood.			
6. Rationale (Problem Identification)	Barramundi has lower price compared to other species. This is due to its high abundance in stocks. Most fish were discarded because fishers are interested in the swim bladders that have higher value for export. Barramundi Stocks are highly exploited and require sustainable management including post-harvest and value-chain analysis.			
7. Target Beneficiaries	Gillnet and Trammel net Fishers in Merauke sub-district Private companies (Retailer and Processing) that are focusing on buying Barramundi from fishers			
8. Expected benefits	Improved fishing practices; reduced by-catch; and added-value to products that will improve fishers income and provide alternative livelihoods.			
9. Proposed Implementation Arrangements	The project will contract out independent technical consultant (or MSC Assessor) to conduct the pre-assessment on Barramundi Fishery in Merauke, which includes a provision to value-chain analysis. The Action plans resulted from the fishery pre-assessment, will be included as part of the government program through series of consultations with the Kabupaten and Provincial fisheries officials National Project Coordinator would coordinate with relevant agencies, NGOs and private sectors to ensure effective implementation of the activities.			
10. Proposed specific activities	With input from the SPF, assemble a FIP technical working group to oversee the FIP activities under this outcome, and to also contribute to institutional capacity building Establish electronic database linking to traceability and trade at district and national levels, through training for Observers and on methods to complete Log-Books Facilitate and conduct pre-assessment activities based on the MSC guidelines on Barramundi fishery in Merauke.			
11. Activity Outputs	Pre-assessment report and action plans developed of Red Snapper fishery that will be required to enter MSC certification process			
12. Indicators	Indicator	End of Project Target		
	Alternative Livelihoods:	400 by project closure (includes 200 women)		

Proposed Intervention No. 9 Barramundi Fisheries Improvement Project (alternative livelihoods)	
13. Monitoring and Evaluation Criteria	Number of fishers group participated Number of private companies involved and the total amount of support they provided Percent change in fishing and handling practices by fishers involved in this program Number of people with alternative livelihoods (gender disaggregated)
14. Risk Factors	Sustainability of this program at Kabupaten and Provincial level
15. Risk Mitigation	Integrate FIP Action Plans into the government program
16. Links with Other Initiatives	SFP WWF ReBYC-II
17. Approximate Cost	USD 75,000

Proposed Intervention No. 10					
MPA Kolepon: Pilot locally marine managed area (alternative livelihoods)					
1. Thematic Area	Marine Protected Areas				
2. ATSEA2 Outcome	Output 2.3 Biodiversity conserved through rehabilitation and protection of coastal and marine habitats and protection of species				
3. Target Communities and Site Description	Country: Indonesia	Province: Papua	District: Merauke		
			<u>Women</u>	<u>Men</u>	<u>Total</u>
	Approximate number of direct beneficiaries:		8,732	8790	17,112
	Approximate number of indirect beneficiaries: (information sourced from PT Tulada Konsula during the Progress Report presentation at KKJI, in November 2015)		99,592	110,388	209.980
4. Baseline	<p>While turbid water conditions due to high sedimentation process mean there are no seagrass and coral reef ecosystems, it has a rich diversity of mangroves, swamps, and mixed forests. The shape of the island has also led to two-thirds of the island being dominated by marsh habitat, with dry land only found on the outskirts of the island.</p> <p>The population is generally indigenous to the area. There is a high level of community dependence on marine resources for food security and livelihoods. Fishing is the main occupation for most of the year, with farming providing supplementary food in the monsoon season.</p> <p>The two main fisheries are for mangrove crab and arwana fish. Arwana fish spawn between October – January. There is a local wisdom or general community knowledge to only take fish of medium size. Commercial fishers (non-indigenous) are required to have the consent of traditional owners to fish in waters adjacent to Kolepon.</p> <p>As with many coastal communities, inhabitants rely on a subsistence economy relying on available marine resources. The area has been identified by the Merauke District as an important strategic marine area and is proposing a marine protected area, with surveys completed. This area has also been identified by the Central Government as a National Marine Strategic Area and is proposing to extend the district MPA to 12 nautical miles to make it a national MPA, with the intention to develop fisheries, including mangrove crabs, arwana fish and other freshwater fisheries, and the agricultural sector.</p> <p>By Bupati decree No 417/2013, Merauke has mainstreamed gender issues into the district government organization. This decree outlined gender mainstreaming and setting up a working group on gender issues. By this decree, the government encourages organizations in Merauke to mainstream gender issues into their programs.</p> <p>The contribution of women in fisheries is not recognized therefore it is hidden in the statistics. In fact, women contribute significantly to the fishery sector and household food security. In coastal communities, women collect shells in intertidal waters and mangrove areas. The key product collected is the bamboo clam, which is consumed domestically and sold at market (discussion with Paskalina, WWF Indonesia Merauke Office). Women were seen working at fishing boat in Merauke in June 2015, cleaning and fixing the nets when the boat landed with the fish. They were paid in kind with fish from the fishermen. However, as this work is not recognized as labor in the fisheries information system, there is no data available.</p> <p>The Sistem Informasi Data Indek Kerentanan Perubahan Iklim (SIDIK) (Indonesia's Climate Change Vulnerability index) is an information system that combines data on exposure and sensitivity to climate change, adaptive capacity, coping range, and the risk of potential impact of climatic events (such as flooding). According to SIDIK, Merauke District is labelled red and thus categorized as highly vulnerable to climate change (SIDIK. Access on 27 Sept 2015)</p>				
5. Intervention Description	<u>Locally Managed Marine Area Pilot.</u> Support implementation of the financial sustainability and expanded management plans, with the focus on participatory integrated approaches engaging local communities				
6. Rationale (Problem)	The indigenous communities residing on Kolepon Island are dependent on the marine environment for food security and livelihoods. It is an area rich in				

Proposed Intervention No. 10		
MPA Kolepon: Pilot locally marine managed area (alternative livelihoods)		
Identification)	<p>biodiversity, and with the MPA currently under development there is an opportunity to engage the community towards a bottom up approach for management ie co-management. Key issues around the area include poor enforcement of illegal fishing and potentially overfishing (for some species such as sea cucumber and sharks) activities, illegal harvest of mangroves.</p> <p>Prior to the closures, Wanam provided key fishing operators that bought fish from the local community. Since the moratorium for foreign vessels, access to markets to sell seafood products has been difficult due to the distance and lack of cold storage and other equipment for processing to value add to products. A key issue is the waste of fish – local community fishers catch barramundi and red snapper, but due to a lack of cold storage, only extract the swim bladder for drying and export to China with the rest of the fish being discarded.</p>	
7. Target Beneficiaries	Communities living in the 3 districts of Kolepon (Kimaam, Tabonji, Waan)	
8. Expected benefits	<p>Improved access to markets for seafood products through value adding and processing.</p> <p>Improved management of the Kolepon MPA once established through co-management with local villages through the incorporation of traditional management</p> <p>Improved awareness of the community around fisheries conservation, marine debris and the impact on protected species.</p>	
9. Proposed Implementation Arrangements	<p>Any co-management activities will need to be lead by KKP and the District, with the support of NGOs like WWF.</p> <p>Activities to occur need to be confirmed once consultation with the community is undertaken during the ATSEA project as an initial step</p>	
10. Proposed specific activities	<p>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 Kolepon Island; (c) awareness building of traditional systems for MPA management; (d) and awareness building regarding oil spill preparedness and response.</p>	
11. Activity Outputs	<p>Improved access to markets for seafood products through value adding and processing.</p> <p>Improved management of the Kolepon MPA through co-management with local villages through the incorporation of traditional management</p> <p>Improved awareness of the community around marine debris and the impact on protected species.</p> <p>Improved preparedness regarding oil spills.</p>	
12. Indicators	Indicator	End of Project Target
	No of villagers engaged MET score for Kolepon MPA	No of villagers engaged MET score of at least green
13. Monitoring and Evaluation Criteria	<p>No of villagers engaged</p> <p>Improved MET score of Kolepon.</p>	
14. Risk Factors	<p>Lack of engagement of villages</p> <p>Lack of new markets for seafood products</p>	
15. Risk Mitigation	<p>Early discussions with villages to understand their issues and needs to ensure activities are tailored to suit their needs and situation</p> <p>Early discussions with middle men to determine who is likely to be most open to new seafood products.</p>	
16. Links with Other Initiatives	There will be a close linkage with the activities associated with the upgrade of the district Kolepon MPA to a national level MPA.	
17. Approximate Cost	USD 100,000	

Local Investment: **KABUPATEN ROTE NDAO**

Nusa Tenggara Timur (NTT) Province, Indonesia

The local investment in Rote Ndao District supports the implementation of integrated coastal management (ICM) at the district level, under Outcome 2.4. The scope of the local investment covers the six sub-districts that line the southern coast of Rote Ndao and face the Timor Sea. Through the ICM work in Rote Ndao, the NTT provincial Marine Spatial Plan, which will soon be declared by the governor, will be integrated with the district's land use plan and incorporated with. With its advanced state of spatial planning, Rote Ndao has the potential to be a model of ICM implementation for Indonesia's districts and other in the ATS region. Specific local investments that will be implemented as a part of ICM to ensure the establishment of climate-resilient alternative livelihoods, particularly for women, including improving market access for seaweed products; training on business skills for small home-based businesses; ecosystems-based adaptation through restoration of coastal ecosystems; and, supporting adaptation to climate change through improving the use of solar powered water distillers.

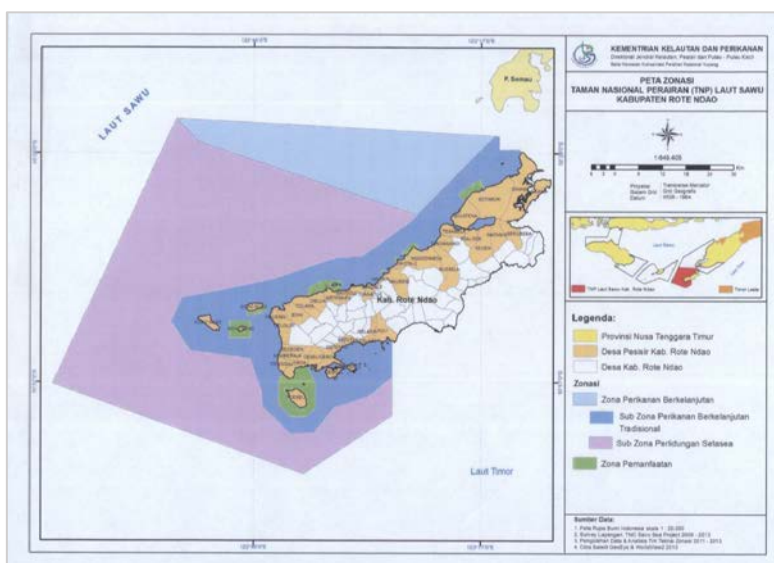


SITE PROFILE

Geography

The district of Rote Ndao is located in the southern part of the Nusa Tenggara Timur (NTT) Province, in eastern Indonesia. The district is comprised of 8 inhabited islands and 99 uninhabited islands, with a total coastline of 330 km. Rote Island, the main island of Rote Ndao district, covers 76.44% of the district's total area of 128,010 hectares. Landu Island, an area directly to the south of Rote Island that is of interest to the project (and visited by the PPG team on 21 September 2015) covers 643 hectares of land.

Figure 1 | Rote Ndao in Sawu Sea National Park

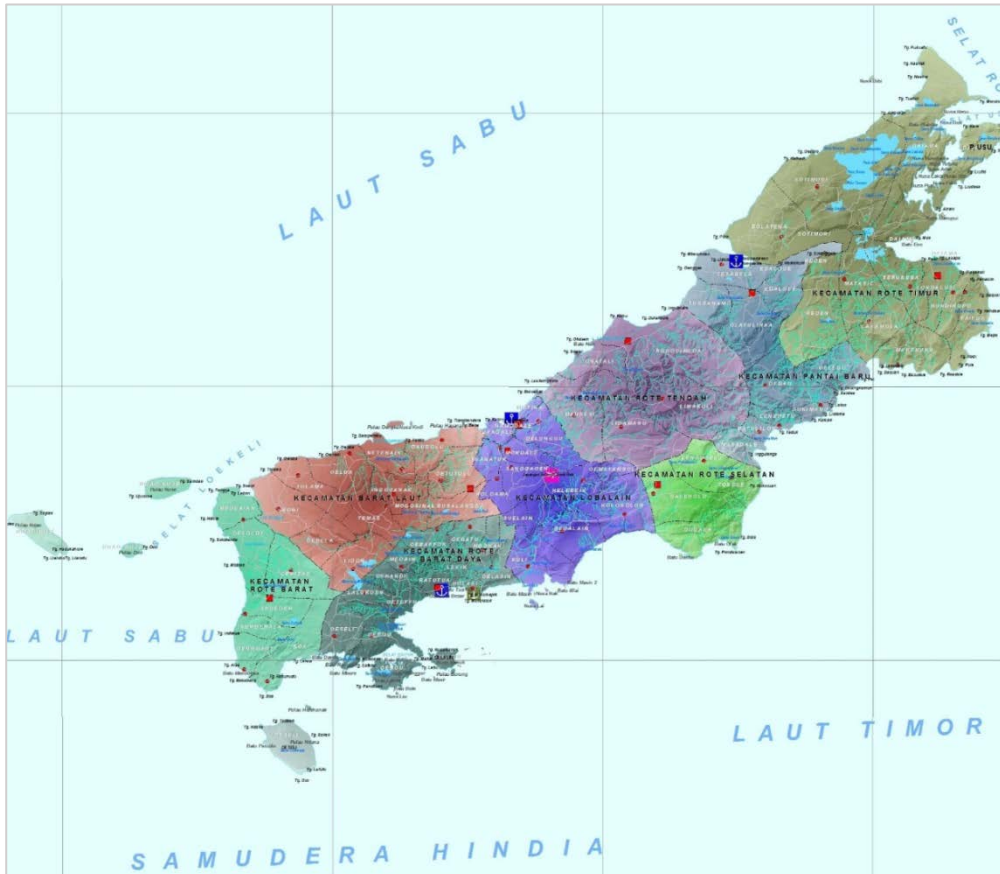


Source: BKKPN Kupang (xxxxx) Rencana Zonasi TNP Laut Sawu.

Administrative Division

Rote Ndao is composed of 10 sub-districts and 89 villages. The administrative map can be seen in Figure 2. Seven of the sub-districts face the Timor Sea; from east to west on Rote Island they include Rote Timur (olive green), Pantai Baru (light purple), Rote Selatan (bright green), Lobalain (bright purple), Rote Barat Daya (dark grey), Rote Barat (sea green), and to the south of Rote Island, Landu Leko (light grey). Approximately 29 villages border the Timor Sea.

Figure 2 | Rote Ndao Administrative Map showing Division by Sub-district



Source: Kabupaten Rote 2011, Rencana Tata Ruang Kabupaten Rote

Relevant Stakeholders

There are several stakeholder groups in Rote Ndao that have interests and activities in coastal and marine natural resource management, including government agencies, non-government agencies, private sector enterprises and communities.

Subnational governmental agencies and institutions: The main government agency is Department of Marine Affairs and Fisheries (DMAF). Figure 3 below demonstrates the relationship between DMAF and other district stakeholders in the management of coastal and marine resource related activities. Other subnational government agencies and institutions include the Agency of Planning and Development (Bappeda), which works with DMAF in planning and budgeting; the Transportation Agency, which provides recommendations for vessels to get a license from Perizinan (the Licensing Agency); the Public Works Agency, which conducts a variety of development activities; the Tourism Agency, which is responsible for developing the tourism areas of Rote Ndao; the Mining Agency, which provides recommendations for exploration; the Forestry Agency, the Natural Resource Agency (BKSDA) and the Environment Agency, all three of which have ongoing mangrove activities; the Disaster Management Agency, responsible for responding in any emergency situation; and the Navy and Marine Police, who patrol annually.

Civil Society Organizations: The Nature Conservancy (TNC) has several significant activities in Rote Ndao, including activities in marine spatial planning, sustainable fisheries, marine tourism and community development. TNC's work in marine spatial planning was completed for the district of Rote Ndao, and has

since been sent to the provincial level for inclusion in the provincial plan after the authority for spatial planning was shifted from district to provincial levels in 2015. TNC has also collaborated with the University of Artha Wacana, Kupang on providing support to Rote's seaweed farmers in order to improve their production and post-harvest systems. TNC has further provided support to the customary institution forum to establish traditional use rights for sustainable fisheries management. Other civil society organizations in Rote Ndao include a captured-fisheries group, seaweed farmers and a freshwater culture farmers group. They are mainly established to help fishers and farmers get support from the government.

Private Sector: Private sector actors in the fisheries sector include fish product traders (squid, seaweed; sea cucumbers and other products). Other private sector actors include those involved in tourism (hotels and restaurants) in Nembrala.

Access and Electricity

The capital city of Rote Ndao District is Ba'a. According to GoogleMaps, Ba'a is around 50 miles from Kupang, the capital city of NTT province. Rote Ndao can be reached by airplane in 30 minutes from Kupang to Ba'a, fast ferry in 1.5 hours and 3 hours by regular ferry. Many fishermen from northeast Rote frequently make the trip back and forth to Kupang. Among 29,827 houses in Rote, only 53.28% of the total houses have electricity from the state owned electricity company (BPS Rote Ndao, 2014). In December 2012, the Ministry of Village, Less Developed Village and Transmigration provided solar panel with capacity 3 lamps per house (@3watt/lamp) to 3716 houses (www.tempo.co.id). In 2013, the Ministry of Energy and Mining provided solar panel with capacity 10 kw to 61 houses in Landu Island (www.mediaindonesia.com). This solar electricity also powered reverse osmosis of salt water. During field visit in September 2015, PPG Team found the reverse osmosis was not operated due to the absent maintenance staff when the machine had problems.

Demographics

The total population of Rote Ndao in 2013 was 127,911 people (BPS Rote Ndao 2014), with 65,191 males and 62,720 females. At that time there were 32,344 households in the district with 4 people on average per household. The percentage of people under the age under 15 years old was 12.2% (male=12.16% and female=12.24%) and people over the age of 55 years old comprised 2.5% percent of the population (male 2.5% and female 2.4%). Within the 7-12 age group (considered the age of basic education), around 97% attend school, with 2% never having attended and 1 % having dropped out. Meanwhile, around 91% of 12-15 year olds attend school; the other 9% have dropped out. 14,559 households were identified as being occupied by poor families, with poor people representing 28.25% of the total population (BPS Rote 2014). The Human Development Index for Rote Island is 67.7 which is number 13 among 22 districts in NTT Province (BPS Rote Ndao 2015). The life expectancy in 2013 is 68.7 (BPS Rote Ndao 2015).

Rote Ndao has one hospital and 12 health clinics, with at least one in each sub district. Around 97 village level sub health clinics were identified. The ratio of health staff to the total population is 3:1000.

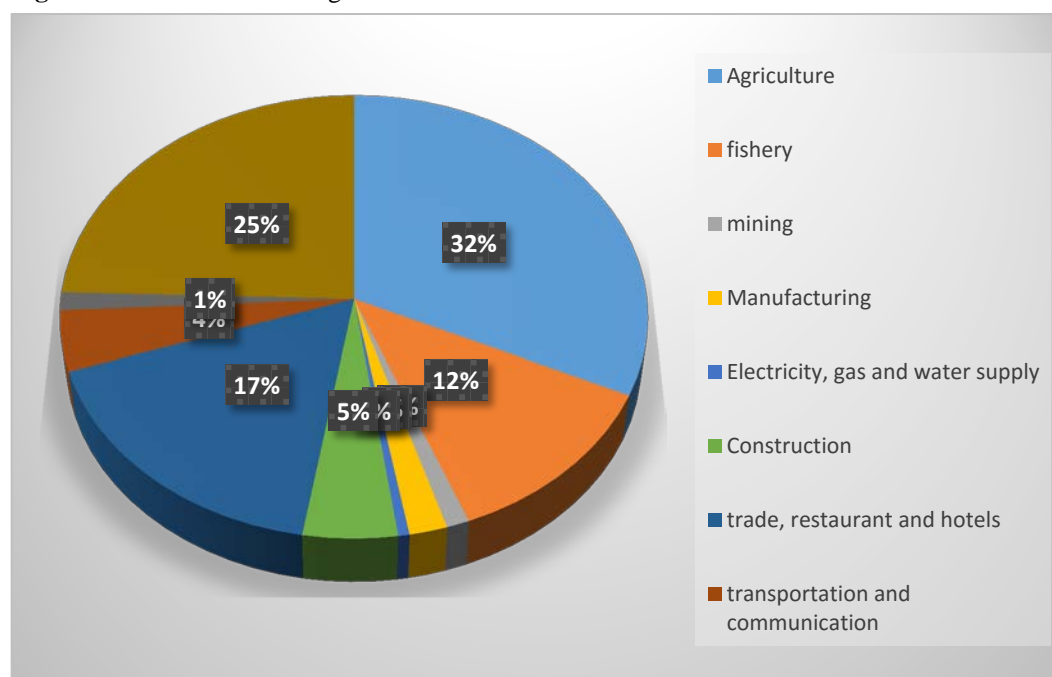
Based on Food Security Vulnerability Atlas developed by WFP, Rote Ndao is categorized as highly vulnerable to food insecurity where the attributes are poverty, no access to electricity, high concentrations of underweight children less than five years old and the lack of clean water (WFP 2009). The percentage of people below the poverty line was 28.26%; 66.37% of total houses without electricity and Around 40.8% of children less than 5 years old are underweight (WFP 2009).

The majority of Rote is protestant, around 91% (110.207 people). This is followed by Muslim that contributes around 7% of total population (7974 people), Catholic around 2% of total population (2529), and Hindu is 1% of total population (67).

Economy and Livelihoods

In general, the economy of Rote Ndao can be understood by reviewing the gross domestic product. In the Gross Domestic Regional Product at current price in 2013, Fisheries contributes 12 % to Rote Ndao economy (Figure 4). Agriculture still dominates the economy of Rote Ndao (32% of total). People maintain rice paddy fields as well as farm corn. Palm sugar still dominates the economy; Rote Ndao has historically been famous for its Palm Sugar (Fox 1996). Expenditure per capita per month in Rote Ndao is Rp 589,920 (about US\$43) per month.

Figure 4: Gross Domestic Regional Product Rote Ndao in 2013.



Source: BPS Kabupaten Rote Ndao (2014). Kabupaten Rote Ndao Dalam Angka 2013.

The fishery sector in Rote Ndao is composed of 2449 fishers (DKP Rote Ndao. 2015). There is no sex disaggregated data on fisheries available. The fishers consist of fulltime fishers, major fishers and minor fishers who only fish for additional income. The predominant fish caught off of the Rote Ndao coast is scad, followed by snapper and then squid, sea cucumber and octopus.

There are 10,790 seaweed farmers (Table 1). 17,640 tons of seaweed were produced in 2013 (DKP Rote Ndao 2014). Around 34% of families in Rote identified themselves as a seaweed farming household (9,501 of a total of 28,190 households in Rote) (Fitriana 2015). Although the seaweed price fluctuates, it brings cash income to seaweed farmers, enabling them to improve their livelihoods. We can see seaweed farming all over Rote.

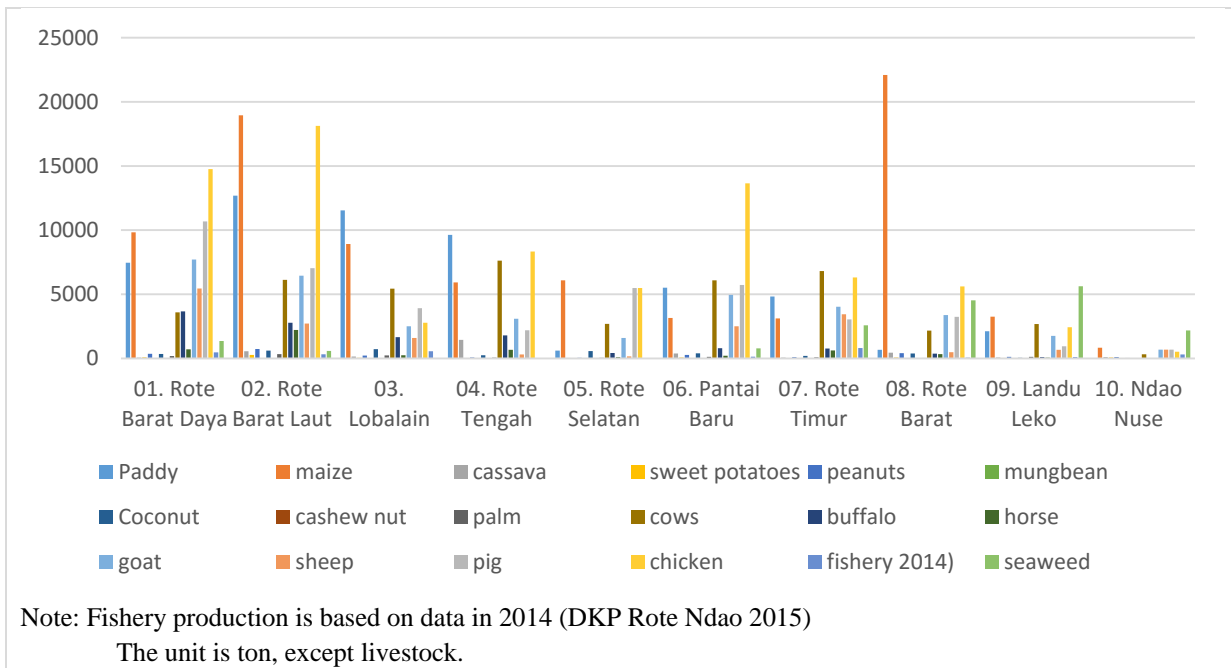
Table 1: Number of fishers and seaweed farmers in Rote Ndao as of September 2015

Sub districts	Fulltime fishers	Major fishers	Minor	Total Fishers	Seaweed farmers
Rote Barat Daya	107	43	13	163	706
Rote Barat	32	15	13	60	1780
Ndao Nuse	243	107	39	389	1507
Rote Barat Laut	121	108	112	341	1567
Lobalain	133	97	211	441	380
Rote Tengah	21	55	43	119	568
Rote Selatan	13	42	23	78	543
Pantai Baru	125	132	54	311	314
Rote Timor	205	83	76	364	2113
Landu Leko	75	62	46	183	1320
Total	1075	744	630	2449	10,790

Source: DKP Rote Ndao 2015.

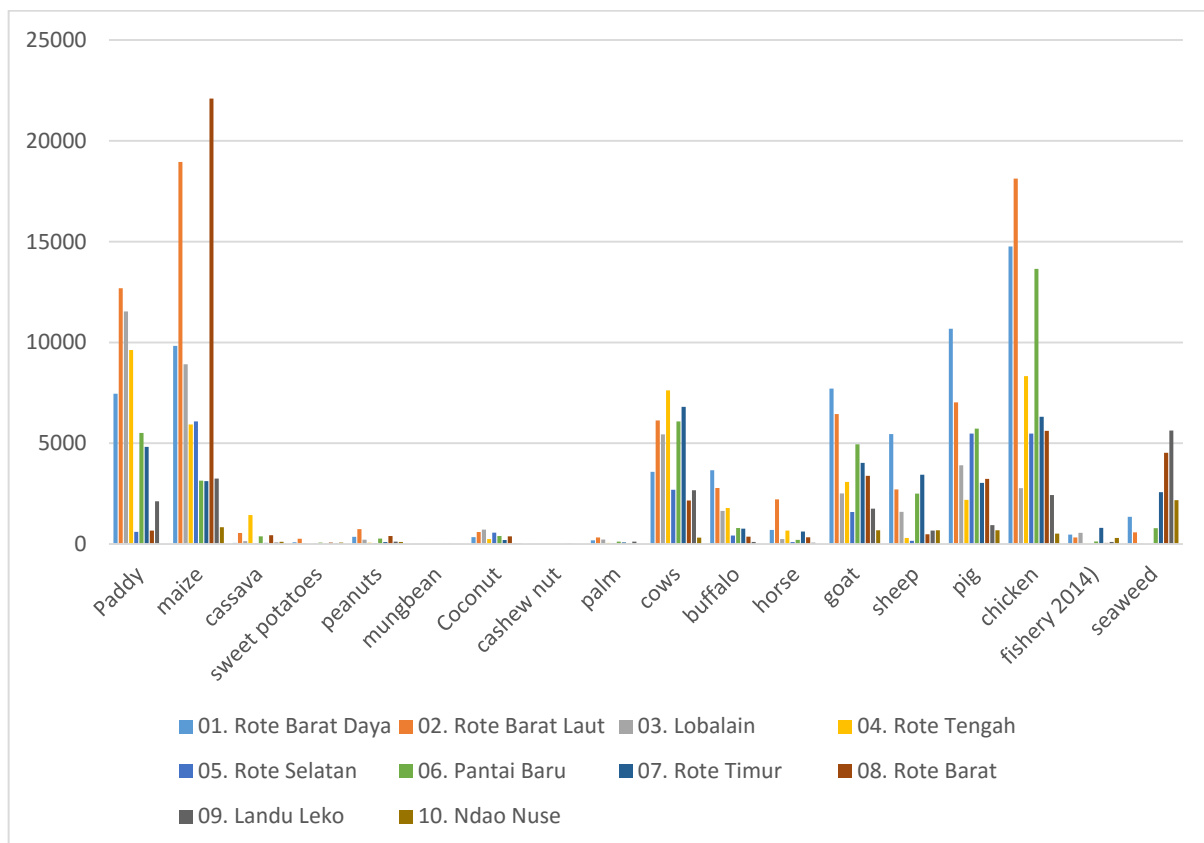
The main crop in Rote is maize, followed by paddy, cassava, coconut and palm. The dominant production for livestock is chicken, then cows, pigs and goats respectively. The distribution of production for each product can be seen in Figures 5 and 6 below.

Figure 5: production of agriculture products, livestock and fishery per sub district in 2013



Source: BPS Rote Ndao 2014, Kabupaten Rote Ndao dalam Angka 2013

Figure 6: production of agriculture products, livestock and fishery per sub district in 2013.



Gender Issues and Women’s Participation in Coastal Management

Number of labour force in Rote is 67,608 people and around 43% of total labour force is women. They mostly work in agriculture that includes fishery sector and the rests work in construction, trader and services. Within the labour force, there are 1680 people are unemployed and 60% of total unemployed are women (BPS Rote Ndao 2014). There is no statistical record of women-related activities in the coastal and

marine areas of Rote Ndao. During focus group discussions held in a number of villages on 22-23 September 2015, the participants described several activities conducted by women in intertidal waters such as collecting shells, small fish, sea cucumber. In mangrove areas, women collect shells. In seaweed farming, women do activities in pre farming such as tying the seedlings of seaweed to ropes, bringing to the sea and ties to main rope. During harvesting season, women are even busier by untying the seaweed, drying it in the sun, packing into plastic sacks and selling to the village trader. After production, women are involved in sundrying fish, and then selling or bartering it at the weekly market. In addition, women also collect water and firewood for cooking. The women in these villages considered themselves to be particularly busy during the dry season, as the waiting time for collecting water is much longer.

Key Marine and Coastal Habitats

The key marine habitats are mangrove seagrass and coral reefs. Mangrove area in Rote Ndao is around 1926 ha. The dominant species of mangroves are *Rhizophora stylosa*, *Rhizophora apiculata*, *Sonneratia alba* and *Aegiceras Floridium*. Seagrass covers area 2784.7 ha and coral reefs covers 29,165 ha (Ministry Decree No 5/2014 on Sawu Sea National Park in NTT). The threats to key marine habitats are development in coastal areas, unsustainable fishing methods, anchor of boats, and sand mining.

Large fauna found in Rote Ndao are sea turtles (*Chelonia mydas*, *Eretmochelus imbricate*, *Natator depressus*, *Lepydochelys olivachea*); Humphead Grouper, *Manta byrostris*, shark (Ministry Decree No 5/2014 on Sawu Sea National Park in NTT).

Disasters and Climate Change Vulnerability

Depending on the monsoon, Rote Ndao can experience strong wind and waves. The number of disasters in all sub districts due to strong waves and high tides is shown in Table 2 below.

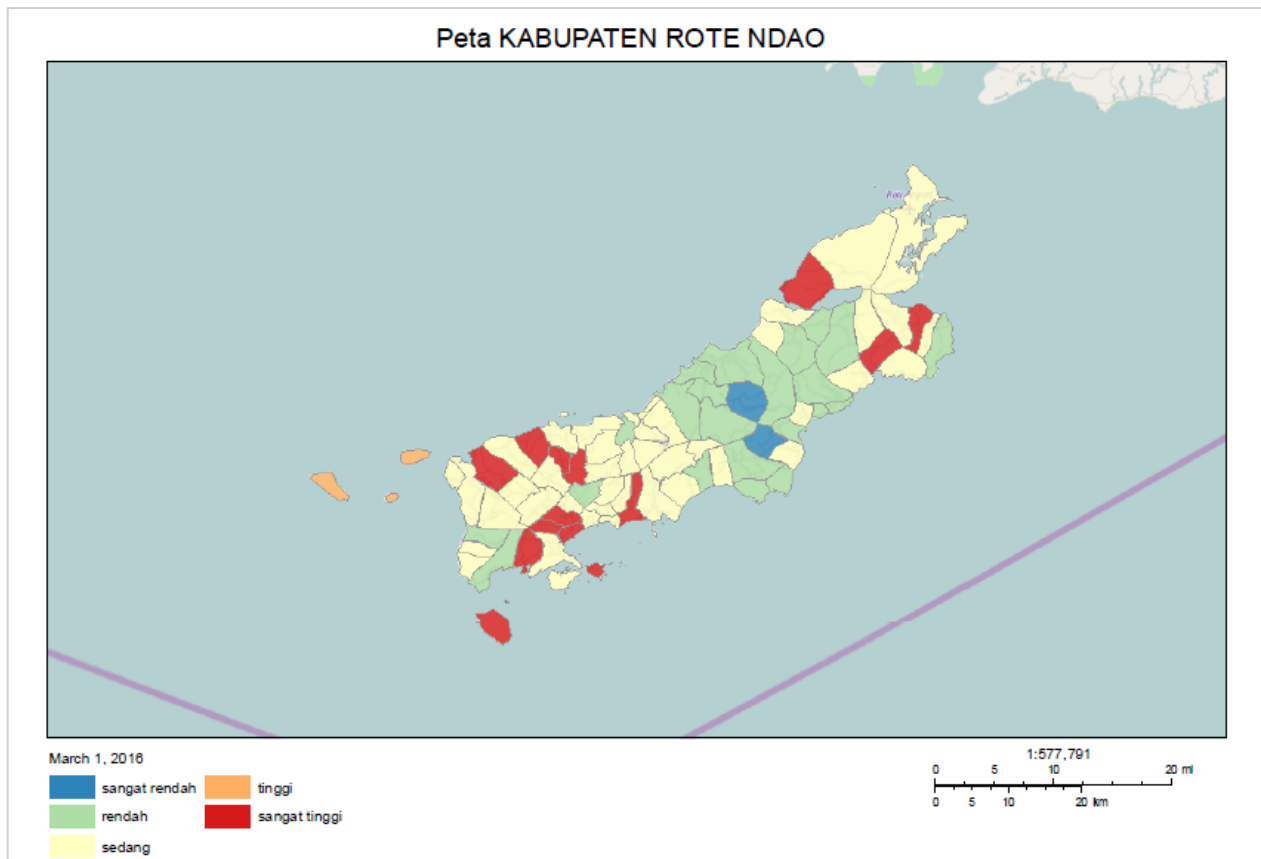
Table 2: Number of strong wave and high tide event in 2013

Subdistrict	# Strong wave and high tide in 2013	# of HHs impacted
Rote Barat	3	4
Ndao Nuse	2	108
Rote Barat Daya	1	112
Rote Barat Laut	1	11
Lobalain	3	11
Rote Tengah	1	1
Rote selatan	2	127
Pantai baru	0	0
Rote Timur	2	2
Landu leko	1	1

Source: BPS Rote 2014

The Sistem Informasi Data Indek Kerentanan Perubahan Iklim (SIDIK) (Indonesia's Climate Change Vulnerability index) is an information system that combines data on exposure and sensitivity to climate change, adaptive capacity, coping range, and the risk of potential impact of climatic events (such as flooding). According to SIDIK, NTT province is labelled red and thus categorized as very vulnerable to climate change due to yearly droughts, floods and a lack of resources/assets to cope with the vulnerable situation (SIDIK. Access on 27 Sept 2015). Figure 7 below shows the varying level of vulnerability of villages in Rote Ndao. In Rote, 5 of 14 villages considered as vulnerable to climate change, are located in the south coast, facing the Timor Sea.

Figure 7: Map of vulnerability levels in Rote



Source: KLHK (2016). *Sistem Informasi Data Indeks Kerentanan: Peta Kerawanan Kabupaten Rote Ndao*: sidik.menlhk.go.id accessed on 3 March 2016

Villager' perspective on Climate and Disaster Risk: The impact of climate change is also experienced by the villagers. During Focus Group Discussion (September 2015), participants of group discussion in Landu village said it was hard to predict the weather and sea current for fishing. They considered the intensity of wind, storm and wave was getting stronger. As they only had traditional equipment for fishing they could not go further or capture fish during windy day. For seaweed farmers, the fluctuation of sea temperature affects their seaweed farming. The participants of group discussion mentioned they didn't know what to do with this sea temperature. Meanwhile, participants of group discussion in Batutua village experienced flood from the sea and also rainwater from uphill. During dry season, all villagers had to queue to collect water in one well only. Similarly to Batutua, participants in Oeseli village mentioned flood during west monsoon destroyed several houses and anchored boats along the coast. The participants of group discussion in Oeseli mentioned the wave was getting stronger nowadays. These three villages experienced lack of fresh water during dry season. Nembrala village experienced stronger wave that ruined coastal line and seaweed farming areas.

Integrated Coastal Management Planning

The province of NTT is developing a marine spatial planning. This plan is about to be formally declared under the governor decree. With this marine spatial plan, the NTT province tries to integrate land use and marine spatial planning. However, there is no implementation model yet.

At district level, there is no structured activities to develop and implement ICM. Land use has not yet integrated the impact to marine space and vice versa. There is a need to conduct ICM to assess and integrate the land based activity and marine resources.

Organizations involved in ICM include TNC in supporting province and district government in developing marine spatial plan.

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www.mediaindonesia.com accessed on 17 November 2015

Proposed Intervention No. 11					
ICM: Improved Access to the Market for Women-Run Seaweed Growing and/or Processing Enterprises					
1. Thematic Area	Establishing and strengthening alternative resilient livelihoods				
2. ATSEA2 Outcome	The activity is proposed under Outcome 2.4 <i>Integrated coastal management, incorporating climate change adaptation considerations, implemented at the local level towards more sustainable use and conservation of ecosystem goods and services</i> , specifically in relation to Output 2.4.1 <i>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.</i>				
3. Target Communities and Site Description	Country: Indonesia	Province: NTT	District: Rote Ndao		
	This is a community level activity proposed for areas where seaweed growing is already established, with some but limited access to the markets. Specific communities for this activity will be identified as suitable based on current presence of the seaweed farming in the village. All such communities will then be consulted on their willingness to participate in the activities proposed. The community selection process will occur during the implementation phase and will coincide with the ICM site selection process. The direct beneficiaries are estimated to include 20 women in each of four villages and their families – estimated at an average of about 4 people per family, 50% of whom are male. Indirect beneficiaries are assumed to be the population of the ICM area of Rote Ndao, as this activity is a part of ICM efforts and will be coordinated with related activities.				
	Beneficiaries		Women	Men	Total
	Approximate number of direct beneficiaries:		160	160	320
Approximate number of indirect beneficiaries:		41,253	44,247	86,400	
4. Baseline	<ul style="list-style-type: none"> - Strong reliance on natural-resource based livelihoods, which are highly vulnerable to change in stocks as well as projected climate changes - Presence of seaweed farming, but limited access to the market, typically via single trader - No apparent linkages between seaweed producers and the budding tourism market - Limited financial resources to invest in alternative livelihood options or alternative market access - Limited human capital in terms of understanding the basic principles of business and financial management - Some transferable skills but no specific knowledge of how to create alternative edible and non-edible products from seaweed - Current seaweed farming hindered by a lack of cash-flow and/or access to the market resulting in limited benefits from market sales 				
5. Intervention Description	<p>The proposed intervention will strengthen the capacity of women (and men who are intrinsically involved in seaweed farming, e.g., through family and/or community association) to increase market sales and cash revenues from existing seaweed production. This will be achieved through provision of processing, packaging, and market access skills training, including basic business and financial management training, to women already involved in seaweed farming. Anticipating the effects of climate change in Rote Ndao, this activity will assist households to partially move away from a reliance on climate-susceptible coastal and marine natural resources, thus reducing vulnerabilities.</p> <p>The goal of this intervention is to improve the capacity of women involved in seaweed farming to produce value-added products and to increase their access to markets. The activity will start with an assessment of the context and current status (current levels of production, calendars, pricing, pathways to the market, skills,</p>				

Proposed Intervention No. 11

ICM: Improved Access to the Market for Women-Run Seaweed Growing and/or Processing Enterprises

	<p>potential markets available including local tourism enterprises etc.). A possible activity under this intervention could involve women in Rote visiting (or be visited by) experienced women's groups who are already producing and selling value-added products incorporating seaweed, to exchange ideas and experiences. Recommendations on the 'way forward' will be made by service providers and will be discussed collaboratively with women concerned. Based on the needs identified and agreed topics, women on Rote will receive training (by service providers, assisted by members of selected women's groups) on relevant processing and market access aspects. The Rote participants are expected to be able to, by the end of the training, handle processing and packaging, understand health regulations and compliance, make basic financial plans, establish pricing, and understand the market.</p> <p>The design of all project-related on-the-ground interventions, including this one, will follow a participatory approach. As a part of this approach, women's groups will be formed (or strengthened where they already exists) in each community involved in project-related interventions and will be actively engaged in decision making and monitoring of activities funded in their community. Women's groups will also serve as the key delivery mechanism for this intervention. This capacity building approach will promote 'buy-in' and ownership of the project's activities by local communities. This will contribute, in the long-term, to sustainability of the project's outcomes. In addition, the sustainability of the project will be further facilitated by establishing collaborative relationships with relevant partners at the national and sub-national level.</p> <p>Seaweed processing and sales are a culturally accepted way for women to contribute to the household budgets. Local communities will be sensitized concerning the objectives, benefits and practical implementation of the project's activities in an appropriate language and format. As men in Rote Ndao are often also involved in seaweed farming (though not processing), particular attention will be paid to sensitizing men about the benefits of the activity and ensuring understanding of the benefit for the whole community.</p>
<p>6. Rationale (Problem Identification)</p>	<p>The marine resources and ecosystems of the Arafura and Timor seas (ATS) are at risk. Many of the region's fisheries are over- or fully exploited. Poorly managed or unmanaged extraction of fish, prawns and other biota, coupled with other pressures such as pollution and disease, has led to a decline in living resources within some areas of the ATS.</p> <p>Climate change is further exacerbating this situation. 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 change. Climate change is predicted to alter the coastal environment of the ATS region in many ways, including increases in annual air temperatures and rainfall; heat wave duration; sea surface temperatures; sea level rise; ocean acidification; and the inter-annual variability of the Asian monsoon, as well as decreases in annual potential evaporation. These changes will threaten lives and livelihoods both in the waters and on the coasts. Development projects designed for the ATS region thus need to be cognizant of changing climatic conditions, in particular when addressing food insecurity and fresh water availability.</p> <p>With many households in the ATS region having limited resources and capacities, local communities remain highly vulnerable to the effects of climate change. This is exacerbated by the fact that these communities rely strongly on livelihoods that are predicted to be negatively affected by projected changes in regional climatic conditions, such as increased intensity of rain and wind events restricting access to the fishing grounds, and higher sea temperatures resulting in alteration of marine ecosystems, coral communities and fish distribution. The vulnerability of the coastal communities in the region to climate change, will likely further increase, owing to maladaptive responses that could cause further environmental degradation.</p> <p>Seaweed farming has a potential to address food security and contribute to cash</p>

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ICM: Improved Access to the Market for Women-Run Seaweed Growing and/or Processing Enterprises

	<p>generation under the climate changing conditions. Seaweed represents an alternative and robust crop since they respond well to ocean acidification and some strands (e.g., red seaweed) can tolerate high CO₂ levels. While seaweed is farmed extensively in Rote Ndao, at present, local seaweed farmers are not taking full advantage of the potential value-added of seaweed processing given the restricted market access. This project therefore proposes to explore livelihood activities that are relatively resilient to climate change and that increase adaptive capacity of women and thus their communities.</p>
<p>7. Target Beneficiaries</p>	<p>The immediate beneficiaries are the women in participating communities on Rote, who will benefit immediately from increased capacity and confidence, and incrementally from increase in cash earning.</p> <p>The other group of immediate beneficiaries are ‘trainers’ from experienced women’s groups in other parts of Indonesia and/or the region, who are envisaged to provide technical and other practical advice to women in similar positions, facing similar problems, in Rote Island. These women will benefit from the acknowledgment of their skills and expertise in their communities through increased confidence, pride and self-esteem, leading towards a long-term empowerment.</p> <p>Indirect beneficiaries include the families of the women, who will benefit from the increased income generated from sales of products. The families will also benefit from further diversified livelihoods, which will make them more resilient to external shocks, like disasters and climate change impacts. Producing new products from seaweed also serves to increase the market opportunities for farmed seaweed which, to date, relies heavily on ‘middlemen’ buyers and exporters and is susceptible to significant price fluctuations as it is an internationally traded commodity.</p> <p>The successful establishment or improvement of seaweed related community-based organizations and/or associations or micro-entrepreneurs following the training, is expected to increase interest and opportunity in such practices, benefitting the community as a whole and likely increasing the numbers of beneficiaries in the long term.</p>
<p>8. Expected benefits of proposed activity to local communities</p>	<p>Lack of cash is one of the main constraints identified as facing rural households in Indonesia. Increasing women’s capacity to generate cash will not only bring direct benefit through improvement of family’s quality of life, but will also play an important role in establishing a respected and empowered position for women both within the household and in the community.</p> <p>Producing new products from seaweed also serves to increase the market opportunities and decrease reliance on ‘middlemen’ buyers and significant price fluctuations.</p> <p>As a result of the training, human capital in the communities is expected to increase and facilitate the development of alternative livelihoods. Social capital will also be enhanced through training and other activities that bring people together for improved resilience – developing networks between and within women’s groups on both Rote and in other parts of Indonesia (or the region) that may endure, and continue to bring mutual benefits, long after the end of the project. Financial capital in target households will increase as a result of selling higher value products with increased market access.</p>
<p>9. Proposed Implementation Arrangements</p>	<p>This activity should be outsourced to a local/regional NGO or University partner with strong international and on-the-ground linkages and experience with similar activities elsewhere in Indonesia.</p> <p>A possible Indonesian partner is the Hasanuddin University, Makassar, South Sulawesi (UNHAS). UNHAS has a proven track record of development of farmer groups and womens groups in coastal areas of Indonesia, particularly in seaweed farming communities. UNHAS has been involved in collaborative research and development activities with several Australian agencies, including projects funded by the Australian Centre for International Agricultural Research (ACIAR) involving</p>

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ICM: Improved Access to the Market for Women-Run Seaweed Growing and/or Processing Enterprises

	<p>University of Sydney and James Cook University. Through ACIAR-funded collaborative research and development UNHAS in collaboration with MMAF has developed and continues to support 13 farmer groups in South Sulawesi. These farmer groups are the major mechanism to facilitate adoption of new commodities, such as the edible seaweed (local name: lawi-lawi; <i>Caulerpa</i> spp.). Research has shown that farmers are not aware of alternatives to their current production base, and farmer groups provide an opportunity to introduce new commodities and support their development through training, technical support and – most importantly – farmer-to-farmer learning.</p> <p>Separately, the Faculty of Fisheries and Marine Science at UNHAS has developed several womens groups in coastal villages in South Sulawesi, to produce seaweed-based food and non-food products for sale. One group, in Takalar, south of Makassar, consists of around 50 women in a small village where fishing is the main livelihood activity. This women’s group generates around IDR 10–20 million per month in sales of seaweed-based products.</p> <p>Contact details:</p> <p>Dr Mardiana Ethrawaty Fachry, Hasanuddin University Makassar, mardiana_ethrawaty@yahoo.com;</p> <p>Prof. Natalie Stoeckl, James Cook University, natalie.stoeckl@jcu.edu.au</p> <p>Dr Michael Rimmer, University of Sydney, mike_ind@iprimus.com.au</p> <p>Dr Nicholas Paul, James Cook University, nicholas.paul@jcu.edu.au</p>
<p>10. Proposed specific activities</p>	<ul style="list-style-type: none"> - Assessment of the context and current status (current levels of production, calendars, pricing, pathways to the market, skills, potential markets available including local tourism enterprises etc.). - Identification of existing Women’s groups or similar organizations in villages engaged in seaweed farming or interested in seaweed processing; or identification of sufficient number (minimum 6) of women engaged in such villages, willing to participate. - Arrange for interested women from Rote (maximum of 8) to visit experienced women’s groups who are already producing seaweed based products, to see what they have achieved, to exchange ideas and experiences and to (begin) building networks. They will also have the opportunity to identify products which they would like to learn how to process and sell (subject to assessment of potential market demand). - Participatory collaborative discussion on ‘way forward’, based on assessment and experiences and reactions of Rote women to activities undertaken and the seaweed based products (for food consumption or other – e.g., soap) which experienced women’s groups have been making. - Based on the needs identified and agreed products selected for focus: <ul style="list-style-type: none"> • Assist with legalities associated with food production and with compliance with food safety standards (Ministry of Health, and Majelis Ulama Indonesia – MUI). • Develop relevant training package on processing, packaging and marketing/sales strategies. • 2 women from an experienced women’s groups, who will be active assistants (and mentors) during the training program, will visit Rote Island with the service provider to deliver the training package. This program will comprise a least three days, providing clear guidance on management/ organization, production and packaging. • Provide women on Rote Island with necessary equipment and packaging to carry on activities when training has finished.

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ICM: Improved Access to the Market for Women-Run Seaweed Growing and/or Processing Enterprises		
	<ul style="list-style-type: none"> - Ensure continued support, mentoring and networking - Monitoring and follow-up to assess effectiveness of program 	
11. Activity Outputs	<ul style="list-style-type: none"> - Report on the assessment of the current and potential seaweed markets and products for Rote island - Women's groups strengthened or formed, functioning and actively involved in decision making and monitoring, in each of the communities engaged - Up to four seaweed-based products on Rote registered, to ensure compliance with relevant food safety standards - Training (on production and packaging of those four seaweed based products) conducted in selected climate vulnerable (coastal) communities in Rote Island - Technical visits from experienced women's groups and vice-versa, conducted - All of the activities designed provide opportunities for women to engage and benefit, including enablers for engagement (such as child care and per-diem payments, where appropriate); and consider ways in which to avoid over-burdening of women and girls as the result of project implementation <p>End-of project evaluation of the capacity of the Rote Island women's groups to produce value-added products from seaweed and to better access markets</p>	
12. Indicators	Indicator	End of Project Target
	Alternative livelihoods introduced	40 women provided alternative livelihoods
	While many villagers in Rote Ndao already farm seaweed as a primary source of livelihood, the project will introduce value-added processing techniques with improved market access. Uptake of the improved techniques will be considered as the adoption of an alternative, resilient livelihood.	
13. Monitoring and Evaluation Criteria	<ul style="list-style-type: none"> - Cash generated per women that completed training, per year (\$) - Number of households and communities with access to improved livelihoods - Number of women receiving training for seaweed processing and market access - Number of women's groups established (or strengthened) and maintained - Level of awareness with regards to links between improved ecosystem management and livelihoods and food security – disaggregated by gender (%) - Wellbeing satisfaction score (from 0 not satisfied at all to 10 very satisfied) of process (i.e., engagement, respect, responsiveness) and outcomes (i.e. cash generated, time required/burden, improved nutrition). 	
14. Risk Factors	<ul style="list-style-type: none"> - Women unable to engage due to overburdening with other chores. - Communities are unwilling to accept women's training as beneficial. - Seaweed prices in traditional markets (currently at ~US\$0.8/kg dry) rise and encourage locals to sell seaweed as raw product rather than undertake value-adding activities - Training received does not result in improvements in cash generation, and is thus not perceived as beneficial by the communities. - Training received results in cash generation, but cash is not utilized for the benefit of the family. - New skills and resulting workload create a disproportionate burden of work for women. - Uptake of knowledge is low and resilience is not significantly improved. 	

Proposed Intervention No. 11

ICM: Improved Access to the Market for Women-Run Seaweed Growing and/or Processing Enterprises

15. Risk Mitigation	<ul style="list-style-type: none"> - Intervention is implemented by a well-respected and dedicated partner with prior experience working with women’s groups of seaweed farmers in Indonesia on seaweed processing and market access. - Community buy-in will be strengthened throughout the project through involving the community in decision making, and by allowing women from South Sulawesi (rather than ‘consultants from the west’) to advocate participation. - Assess potential incomes from value-adding activities compared to incomes from selling unprocessed seaweed to determine economic viability of producing seaweed-based products. - Consultations with women’s groups will design interventions for women that do not take too much time and are desirable and seen as beneficial. - Training and increased awareness of the community will improve their understanding of the benefits of the new non-natural resources dependent livelihoods. - Training and knowledge transfer will be conducted throughout project’s life - Relationships developed through multiple interactions between women’s groups leave a legacy network. - Knowledge transfer will be conducted through mentoring as well as formal training sessions.
16. Links with Other Initiatives	<ul style="list-style-type: none"> - USAID Indonesia marine and climate support (IMACS) projects ‘Seaweed farming and mangrove rehabilitation’ in Wakatobi and Nusa Tenggara Barat and ‘Innovation in seaweed production, processing, and marketing’ project in Sulawesi Tenggara - UNHAS ‘The Role of Farmer Groups in Developing and Supporting Pond Aquaculture Lawi-lawi (<i>Caulerpa</i> spp) in Takalar Regency South Sulawesi’ project - ACIAR project FIS/2007/124: Diversification of small-holder coastal aquaculture in Indonesia, implemented by UNHAS, JCU and UoS - ACIAR project FIS/2015/038: Improving seaweed production and processing opportunities in Indonesia, implemented by JCU, UNHAS, Agency for Marine Affairs and Fisheries Research & Development, Indonesia
17. Approximate Cost	<p>The estimated cost of the activity is USD 150,000 for four participating villages, for the duration of the project. This includes national and international consultants and trainers’ fee, transport and costs; cost of technical visits of participating women and other operational costs.</p>

Proposed Intervention No. 12				
ICM: Business and Financial Management Training for Women-Run Home-Based Businesses				
1. Thematic Area	Establishing and strengthening alternative resilient livelihoods			
2. ATSEA2 Outcome	The activity is proposed under Outcome 2.4 <i>Integrated coastal management, incorporating climate change adaptation considerations, implemented at the local level towards more sustainable use and conservation of ecosystem goods and services</i> , specifically in relation to Output 2.4.1 <i>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.</i>			
3. Target Communities and Site Description	Country: Indonesia	Province: NTT	District: Rote Ndao	
	This is a community level activity proposed for areas where there is market potential for entrepreneurship (ideally in close proximity to a tourism market.) Specific communities for this activity will be identified as suitable and willing to participate in the activities proposed during the implementation phase ICM site selection process. The direct beneficiaries are estimated as 20 participating women in each of two communities and their families (average four per household, 50% male). Indirect beneficiaries are assumed to be the population of the ICM area of Rote Ndao, as this activity is a part of ICM efforts and will be coordinated with related activities.			
	Beneficiaries	Women	Men	Total
	Approximate number, direct beneficiaries:	80	80	160
Approximate number, indirect beneficiaries	41,253	44,247	86,400	
4. Base line	<ul style="list-style-type: none"> - Strong reliance on natural-resource based livelihoods, highly vulnerable to projected climate changes - Limited financial resources to invest in alternative livelihood options - Limited human capital with low literacy and numeracy levels and extremely limited human capital in terms of understanding of basic principles of business management - Current alternative livelihood initiatives hindered by lack of cash-flow and/or access to market with limited benefits from market sales 			
5. Intervention Description	<p>To address the predicted effects of climate change on the coastal communities through livelihood diversification, the proposed intervention will raise the capacity of women to engage in small-scale business. This will be achieved through provision of business skills training to women already involved in small business or those who have already received a specific technical training but limited business skills training. This activity will aim to build the capacity of women to engage in livelihood activities not entirely dependent on natural resources and thus strengthening their resilience to impacts of climate change while reducing pressure on marine and coastal resources.</p> <p>The design of all project-related on-the-ground interventions will follow a participatory approach. As a part of this approach, a women’s group will be formed (or strengthened where it already exists) in each community involved in all project-related interventions and will be actively engaged in decision making and monitoring of all activities funded in their community. These women’s groups will also serve as the key delivery mechanism for the present activity. This approach is expected to promote ‘buy-in’ and ownership of the project’s activities by local communities, contribute to the long-term sustainability of the project’s outcomes. Sustainability of the project results will be further facilitated by establishing collaborative relationships with relevant partners such as local NGOs and government officers at the sub-national level within Rote Ndao.</p> <p>The goal of this intervention is to improve the capacity of villagers, especially women actors, in managing their small scale business. The business skills training will start with the pre-assessment of the context and current status. The actual training is estimated to be delivered in 5 days. The participants are expected to be able to make a plan, establish pricing, and understand market principles. The training will also focus on financial management, delivering a simple explanation of household finance, basic accounting, savings and income/family budget. These initial trainings will be followed by mentoring for the duration of the project.</p>			

Proposed Intervention No. 12	
ICM: Business and Financial Management Training for Women-Run Home-Based Businesses	
	<p>The trainer will monitor progress of the participants on a regular basis, and will provide further targeted training and advice, as required. For women willing and ready to move to the next step but without the means to get the business idea started, the project will provide seed money to support women with well formulated business ideas.</p> <p>Home-based small-businesses are a culturally accepted addition to the household budgets, and are predominantly women's responsibilities. Establishment or improvements to small-businesses is proposed as one of the livelihood options proposed by this project.</p> <p>This training activity will be accompanied by a community outreach campaign in line with other project ICM activities, and facilitated by the multi-stakeholder ICM committee envisaged in the target areas. During this campaign, local communities will be sensitized concerning the objectives, benefits and practical implementation of the project's activities in an appropriate language and format.</p>
6. Rationale (Problem Identification)	<p>Many households in the ATS region have limited resources and capacities, and local communities remain highly vulnerable to the effects of climate change. This is exacerbated by the fact that these communities rely strongly on livelihoods that could be negatively affected by projected changes in regional climatic conditions, such as increased intensity of rain and wind events restricting access to the fishing grounds, and higher sea temperatures resulting in alteration of coral communities and fish distribution. The vulnerability of the coastal communities in the region to climate change will likely further increase owing to maladaptive responses that cause further environmental degradation.</p> <p>This project therefore proposes to explore livelihood activities that increase adaptive capacity of women and thus their communities, by proposing activities less susceptible to climate change or activities that are less reliant on vulnerable natural resources, such as home-based small business activities, described here. By engaging communities in alternative, resilient livelihoods, it will also take pressure off marine resources and potentially limit efforts in destructive maladaptive actions.</p>
7. Target Beneficiaries	<p>The immediate beneficiaries are the women in participating communities that take part in the training and women's groups, who will benefit immediately from increased capacity and confidence. This activity is meant to target women who do not farm seaweed either in the same or different communities than those included under proposed intervention 13 above regarding <i>Improved Access to the Market for Women-Run Seaweed Growing and/or Processing Enterprises</i> (given that business skills training is also an inherent part of that activity).</p> <p>Direct beneficiaries also include the families of the women, who will benefit from the increased income generated from sales of products. The families will also benefit from further diversified livelihoods, strengthening their resilience to external shocks, like disasters and climate change impacts.</p> <p>The successful establishment or improvement of small-businesses following the training is expected to increase interest and opportunity in such practices, indirectly benefitting the community as a whole and likely increasing the numbers of beneficiaries in the long term.</p>
8. Expected benefits of proposed activity to local communities	<p>Lack of cash is one of the main constraints facing rural households in the ATS region. Increasing women's capacity to generate cash will not only bring direct benefit through improvement of family's well-being, but will also play an important role in establishing a respected and empowered position for women both within the household and in the community.</p> <p>As a result of the training, human capital in the communities will increase and facilitate the development of alternative livelihoods. Social capital will also be enhanced through training and other activities that bring people together for improved resilience. Financial capital in target households will increase as a result of increased income from small-business activities.</p>
9. Proposed Implementation Arrangements	<p>Implementation of this activity is expected to be outsourced to a local/regional NGO. One potential partner is Riwani Globe, a Business Development Service - Provider that was established in 2002 in Semarang - Central Java and has opened a branch</p>

Proposed Intervention No. 12		
ICM: Business and Financial Management Training for Women-Run Home-Based Businesses		
	<p>office in Surabaya in 2012. With structured and measurable tools, Riwani Globe provides services such as training and consulting for the development of micro, small and medium enterprises in various provinces in Indonesia, and has also provided services in Timor-Leste. The activities undertaken by them have provided benefits for different target group of beneficiaries, such as women, youth, and the communities in general.</p> <p>(Contact details: Rini Wahyu. Email: rini@riwaniglobe.com; RIWANI Globe Business Development Services, Jl. Puri Anjasmoro F-1 No. 15A Semarang 50149; Telp. 024 7622948 Fax. 024 7615368; www.riwaniglobe.com)</p>	
10. Proposed specific activities	<ul style="list-style-type: none"> - Identification of existing Women's Groups or similar organizations engaged in small businesses; or identification of sufficient number (minimum 6) women engaged in individual micro or small businesses, at the location proposed for intervention. - Identification of the current knowledge and the needs - Identification of the training providers and implementing NGO/ agency - Design and delivery of training - For women willing and ready to move to the next step: the activities might also include providing seed money to support women with the business idea but no resources to get it started. In order to qualify for the seed money, women would need to prepare a business proposal and financial plan. - Mentoring and follow-up 	
11. Activity Outputs	<ul style="list-style-type: none"> - Business training for home-based small business activities conducted in at least 2 climate vulnerable communities in Rote, through a learning-by-doing approach. - Women's Groups formed, functioning and actively involved in decision making and monitoring, in each of the communities engaged in project activities, including this activity. - Activities designed provide opportunities for women to engage and benefit, including enablers for engagement (such as child care, where appropriate); and consider ways in which to avoid over-burdening of women and girls as the result of project implementation. 	
12. Indicators	Indicator	End of Project Target
	Alternative livelihoods introduced	40 women provided alternative livelihoods
13. Monitoring and Evaluation Criteria	<ul style="list-style-type: none"> - Number of households and communities with more secure access to livelihood assets and methods – disaggregated by gender - Number of women receiving business training for home-based small businesses activities - Number of small businesses established/grown and maintained, disaggregated by gender - Level of awareness with regards to links between improved ecosystem management and livelihoods and food security – disaggregated by gender (%) - Cash generated per women that completed training, per year (\$) - Wellbeing satisfaction score (from 0 not satisfied at all to 10 very satisfied) of process (i.e., engagement, respect, responsiveness) and outcomes (i.e. cash generated, time required/burden, improved nutrition). 	
14. Risk Factors	<ul style="list-style-type: none"> - Women unable to engage due to overburdening, including high numbers of dependent children. - Communities are unwilling to accept women's training as beneficial. - Training received does not result in improvements in cash generation, and is thus not perceived as beneficial by the communities. - Training received results in cash generation, but cash is not utilized for the benefit of the family. - New enterprises create a disproportionate burden of work for women. - Uptake of knowledge is low and resilience is not significantly improved. 	
15. Risk Mitigation	<ul style="list-style-type: none"> - Intervention is expected to be implemented by a well-respected and dedicated 	

Proposed Intervention No. 12

ICM: Business and Financial Management Training for Women-Run Home-Based Businesses

	<p>NGO with prior experience with business training for home-based small business activities.</p> <ul style="list-style-type: none"> - Community buy-in will be strengthened throughout the project through involving the community in decision making. - Consultations with community leaders to ensure new livelihood activities are relevant and appropriate, and seen as desirable/acceptable. - Consultations with women’s groups will support design of interventions for women that do not take too much time and are appropriate. - Training and increased awareness of the community will improve their understanding of the benefits of the new non-natural resources dependent livelihoods. - Training and knowledge transfer will be conducted throughout the life of the project. - Knowledge transfer will be conducted through mentoring as well as formal training sessions.
<p>16. Links with Other Initiatives</p>	<ul style="list-style-type: none"> - Riwani Globe has already conducted training for women-led enterprise in Nusa Tenggara Timur - IFAD projects have conducted alternative livelihood activities in Kupang, NTT. Collaboration with this project would be beneficial - The Nature Conservancy conducted business skills training for seaweed farmers (both men and women) in Rote. The implementing agency is University of Christian Artha Wacana
<p>17. Approximate Cost</p>	<p>USD 54,000</p> <p>(The cost of the training will be USD 5,000/training. This includes trainers’ fee, trainers transport, trainers hotel and meals as well as operational cost for training. This activity requires monitoring four times/year. The total cost for monitoring is around USD 17,000 including trainers’ fee, transport, hotel and meals. Hence, the total cost of this activity is USD 27,000 per community or USD 54,000 for envisaged 2 communities trained in Rote Ndao.)</p>

Proposed Intervention No. 13				
EbA: Restoration of mangrove and/or other coastal ecosystem				
1. Thematic Area	Ecosystem-based adaptation to climate change			
2. ATSEA2 Outcome	The activity is proposed under Outcome 2.4 <i>Integrated coastal management, incorporating climate change adaptation considerations, implemented at the local level towards more sustainable use and conservation of ecosystem goods and services, specifically in relation to 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.</i>			
3. Target Communities and Site Description	Country: Indonesia	Province: NTT	District: Rote Ndao	
	Area of Coverage:	50 ha		
	This activity will target a community living in and around fragile ecosystems determined adequate for ecosystem-based adaptation via the district-wide climate change vulnerability assessment to be undertaken under Output 2.4.1.			
	Direct beneficiaries will be the 50 or so men and women in this community that will be directly involved in the ecosystem-based activity. Their families are also direct beneficiaries (average four per household, 50% male). Indirect beneficiaries are assumed to be the population of the ICM area of Rote Ndao, as this activity is a part of ICM efforts and will be coordinated with related activities.			
	Beneficiaries		Women	Men
Approximate number of direct beneficiaries:		100	100	200
Approximate number of indirect beneficiaries:		41,253	44,247	86,400
4. Baseline	<p>The Sistem Informasi Data Indeks Kerentanan Perubahan Iklim (SIDIK) (Indonesia's Climate Change Vulnerability index) labels NTT province as red and thus categorized as very vulnerable to climate change due to yearly droughts, floods and a lack of resources/assets to cope with the vulnerable situation (SIDIK. Access on 27 Sept 2015).</p> <p>A number of villages in Rote Ndao have been identified as highly vulnerable to climate change, including several in the southwest corner of Rote Ndao (SIDIK, accessed 2016)</p> <p>Plentiful marine resources are available on the southwest coast of Rote Ndao. (TNC, 2009)</p> <p>The primary threats to key marine habitats, including mangroves and coral reefs, are development in coastal areas, unsustainable fishing methods, illegal harvesting of mangroves for fire wood, and sand mining.</p>			
5. Intervention Description	Following a district wide climate change vulnerability assessment, EbA measures will be identified and implemented together with the local community in a select demonstration site in Rote Ndao district. The focus will be on identifying solutions that result in coastal ecosystem restoration or protection while also fortifying an alternative livelihood for the community. This livelihood link, which will be incentive for the community to continue protection of the protective coastal ecosystems, will bring sustainability to the activity beyond the project end.			
6. Rationale (Problem Identification)	<p>Many local communities in the ATS region remain highly vulnerable to the effects of climate change. This is exacerbated by the fact that coastal ecosystems, including mangroves and coral reefs, in Rote Ndao are in bad condition. People cut the mangroves to use for fuel, to build homes, to build boats and to access to sand both for sand mining and to use the sand to make cement. Destruction of mangrove is leading to erosion problems in sand-mining areas. Coral reefs suffer from illegal and unsustainable fishing practices that damage the reefs. All coastal ecosystems are in danger from encroaching coastal developments. The vulnerability of the coastal communities in the region to climate change will likely further increase owing to these kinds of maladaptive responses that cause further environmental degradation.</p> <p>These vulnerabilities, however, could be reduced through the restoration and protection of these coastal and marine ecosystems. This project therefore proposes to identify a coastal ecosystem whose restoration would decrease the climate change vulnerability of surrounding community and to explore livelihood activities linked to the health of that ecosystem in order to ensure sustainability (such as mud crab</p>			

Proposed Intervention No. 13		
EbA: Restoration of mangrove and/or other coastal ecosystem		
	farming behind a protective mangrove stand).	
7. Target Beneficiaries	Interested members of a community whose vulnerability to climate change could be reduced through the restoration or protection of adjacent coastal ecosystems, with a particular emphasis on those vulnerable areas that also fall under the Sawu Sea MPA.	
8. Expected benefits	Improved fish habitat for fish stocks Reduced coastal erosion	
9. Proposed Implementation Arrangements	Implementation of this activity is expected to be outsourced to a local/regional NGO. Any EbA activities need to be coordinated with KLHK (specifically the DG for Climate Change's Directorate for Climate Change Adaptation (CCA) and its Subdirectorate for CCA through natural adaptation as well as its Subdirectorate for man made adaptation. Government at provincial (Bappeda, DKP and SPADU) and district (DKP and Bappeda) levels will also need to be involved. The Nature Conservancy, with its long history of working on related topics in Rote Ndao including work related to spatial marine and land-use planning, may be a good agency for undertaking this work.	
10. Proposed specific activities	<ul style="list-style-type: none"> - Identify possible locations for EbA based on the district level climate change vulnerability assessment - Conduct village-level ecosystem, social, and economic baseline survey and exploration for alternate coastal ecosystem based livelihoods and determine together with the community which activities to pursue - Establish a community working group - Community awareness with households with particular engagement of youth on the importance of coastal ecosystems to foster a sense of stewardship - Training of community members in ecosystem restoration and related livelihoods - Supported implementation of ecosystem restoration - Train community group to monitor and care for the ecosystem 	
11. Activity Outputs	Restoration of crucial coastal ecosystems to prevent shoreline erosion, salt water intrusion or a myriad of other climate-induced problems	
12. Indicators	Indicator	End of Project Target
	Ha of coastal ecosystem protected	50 ha of coastal ecosystem protected
13. Monitoring and Evaluation Criteria	<ul style="list-style-type: none"> - Number of households and communities with more secure access to livelihood assets and methods – disaggregated by gender - Level of awareness with regards to links between improved ecosystem management and livelihoods and food security – disaggregated by gender (%) - Wellbeing satisfaction score (from 0 not satisfied at all to 10 very satisfied) of process (i.e., engagement, respect, responsiveness) and outcomes (i.e. cash generated, time required/burden, improved nutrition). 	
14. Risk Factors	<ul style="list-style-type: none"> - Lack of participation from community - Weather conditions prevent restoration of ecosystems - Ecosystem restoration is ineffective: The Indonesia Navy and the Natural Resources Office had a project to replant mangroves and coral reef around the island of Ndana. The project, where the community replanted mangroves in W. Rote, was unsuccessful but they don't know why. One potential reason could be that they used the wrong species of mangrove. 	
15. Risk Mitigation	<ul style="list-style-type: none"> - Project will be based on best science available to ensure the correct technique for ecosystem restoration is employed - Give the timescale of ATSEA, poor weather events should not delay planting too long. 	
16. Links with Other Initiatives	BKPPN Kupang: Sawu Sea National Park	
17. Approximate Cost	USD \$50,000	

Proposed Intervention No. 14				
CCA: Building Maintenance Skills for Solar Water Distillers (alternative livelihoods)				
1. Thematic Area	Establishing alternative resilient livelihoods and strengthening climate change adaptive capacity within the larger aim of integrated coastal management for healthy communities.			
2. ATSEA2 Outcome	The activity is proposed under Outcome 2.4 <i>Integrated coastal management, incorporating climate change adaptation considerations, implemented at the local level towards more sustainable use and conservation of ecosystem goods and services</i> , specifically in relation to Output 2.4.3 <i>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.</i>			
3. Target Communities and Site Description	Country: Indonesia	Province: NTT	District: Rote Ndao	
	This is a community level activity proposed for areas where the Indonesian Ministry of Energy and Mineral Resources has installed solar powered water desalination units. Specific communities for this activity will be identified as those who have had the units installed in the village, and are willing to participate in the activity proposed. Final selection will occur when identifying CCA/EbA priorities in Activity 2.4.3-1 (after the climate change vulnerability assessment has been undertaken according to activity 2.4.1-3) as part of the implementation phase ICM site selection process.			
	Direct beneficiaries will include the 3-5 women who will receive the training in 5 villages and their families (with the assumption of 4 people per family, 50% male). Indirect beneficiaries are assumed to be the population of the ICM area of Rote Ndao where there will be better, more reliable access to water, as this activity is a part of ICM efforts and will be coordinated with related activities.			
	Beneficiaries	Women	Men	Total
	Approximate number of direct beneficiaries:	50	50	100
Approximate number of indirect beneficiaries:	41,253	44,247	86,400	
4. Baseline	<ul style="list-style-type: none"> - Common fresh-water shortages - Considerable time spent each day on water collection by women - Likelihood of increased vulnerability, based on the current projections of climate change impacts in this region - Limited human capacity and financial resources to invest in alternative water sources - Outmigration of the younger population, males in particular - Existing reverse osmosis machines with inadequate maintenance capacity in local communities 			
5. Intervention Description	<p>The proposed intervention aims to raise the capacity of women in selected communities to operate, service, and maintain solar-powered desalination units. It is proposed that this intervention is carried out in concurrence with government-led activities, and particularly focuses on supporting training of the middle-aged and older women in the servicing and maintenance of the units. Older women are deemed least likely to leave the village, and hence are seen as the most reliable group within the community to receive the training.</p> <p>Design of on-the-ground interventions for this project will follow a participatory approach. This approach will promote ‘buy-in’ and ownership of the project’s activities by local communities, contributing to the long-term sustainability of the project results. Sustainability will be further enhanced by establishing collaborative relationships with relevant enabling partners such as local NGOs and government officers at the national and sub-national level.</p>			
6. Rationale (Problem Identification)	<p>Anticipated effects of climate change on Rote island include longer dry seasons, with the shorter more intense and erratic wet seasons. Such predictions would further exacerbate fresh water shortages and hence, increase water-related vulnerabilities in the coastal and small island communities.</p> <p>During stakeholder consultations, fresh water access and shortage was identified as a significant issue in every community visited on Rote island. Women are particularly affected by water shortages as water collection is their traditional responsibility, and</p>			

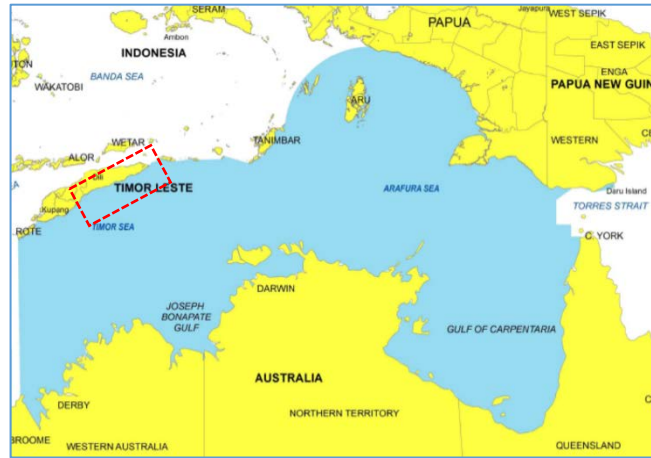
Proposed Intervention No. 14	
CCA: Building Maintenance Skills for Solar Water Distillers (alternative livelihoods)	
	<p>they spend considerable amount of time every day gathering water. During the community consultations women expressed desire to have better water access, which would free their time to engage in income-generating activities.</p> <p>Solar powered water desalinization units have been installed by the Ministry of Energy and Mineral Resources in a number of villages on the island and women were keen on this technology being replicated in other areas. However, in the villages with the desalinization units, plant maintenance was described as a significant issue. Specifically, communities reported that it is typically young males who receive the operations, servicing and maintenance training; and that these trainees tend to leave the village after receiving the training, leaving community without the relevant skills and hence vulnerable to malfunction of the units. Older women are deemed least likely to leave the village, and hence are seen as the most reliable group within the community to receive the training.</p>
7. Target Beneficiaries	<p>The immediate beneficiaries are the women who will receive the training thus increasing their personal skills and capacities, and also would add to their livelihoods, as they are expected to render their developed maintenance services for a fee.</p> <p>Indirect beneficiaries include all the women and the entire community, as having a servicing capacity within the village will decrease the time units spend off-line, thus increasing the reliability of the fresh water supply to all members of the community and limiting time spent in water-gathering for all women.</p>
8. Expected benefits	<p>Limited availability of fresh water, in particular in the dry season, was identified as one of the key time constraints by women in Rote. Increasing women's capacity to operate, service and maintain desalinization units might have significant impacts on all women in the community, as readily available water will reduce the time spent on water collection opening opportunities for other, potential cash-generating, activities. Due to the training, human capacity in the communities will increase. Also, perception of women as capable of successfully handling 'technical' problems might have long-term transformational impacts on younger generation. Social capital will also be enhanced through training and other activities that bring people together for improved resilience.</p>
9. Proposed Implementation Arrangements	<p>Potential collaboration with Barefoot College in India and participation in their "solar engineers" program is an option.</p> <p>This initiative is envisaged to be implemented concurrently with the Indonesian government Ministry of Energy and Mineral Resources initiative for installation of solar-powered desalinization plants in island communities.</p> <p>IBEKA: an Indonesian abbreviation of <u>Inisiatif Bisnis dan Ekonomi Kerakyatan</u> or in english People Centered Business and Economic Initiative. Who works in renewable energy and rural economic development in rural villages in Indonesia</p>
10. Proposed specific activities	<ul style="list-style-type: none"> - Identification of all villages on Rote Island where solar-powered desalinization plants have been installed; - Identification of the communities interested in taking part in the activity, and the individuals interested to receive training; - Training, in collaboration with the Ministry of Energy and Mineral Resources; - Identification of further villages where solar-powered desalinization plants are planned to be installed; - Identification and training of mid-aged and older women interested in receiving training in those villages - Mentoring and follow-up, additional training, capacitation and problem solving for the duration of the project
11. Activity Outputs	<ul style="list-style-type: none"> - Technical training for operation, servicing and maintenance of solar-powered desalinization units received by 3-5 women in each relevant village - Women's Groups formed, functioning and actively involved in decision making and monitoring, in each of the communities engaged in project activities, including this activity. - Financial management training, in order to strengthen the capacity of the women to

Proposed Intervention No. 14		
CCA: Building Maintenance Skills for Solar Water Distillers (alternative livelihoods)		
	handle simple procurement demands and manage expenses and payments associated with the maintenance services.	
12. Indicators	Indicator	End of Project Target
	Alternative livelihoods introduced	25 (number) people provided alternative livelihoods
13. Monitoring and Evaluation Criteria	<ol style="list-style-type: none"> 1. Number of women receiving training 2. Number (%) of installed units maintained by women 3. Level of awareness with regards to links between future fresh water availability and climate change– disaggregated by gender (%) 4. Increase in household income 	
14. Risk Factors	<ul style="list-style-type: none"> - Women unable to engage due to overburdening, including high numbers of dependent children. - Communities are unwilling to accept women’s training as beneficial. - Training received does not result in women actively participating in operation and maintenance, due to cultural reasons. - Uptake of knowledge is low and resilience is not significantly improved. 	
15. Risk Mitigation	<ul style="list-style-type: none"> - Intervention is implemented by a well-respected and dedicated organization in collaboration with the Ministry of Energy and Mines. - Community buy-in will be strengthened throughout the project through involving the community in decision making. - Consultation with the whole of community to ensure this intervention is seen as desirable/acceptable. - Training and knowledge transfer will be conducted throughout the life of the project. - Knowledge transfer will be conducted through mentoring as well as formal training sessions. 	
16. Links with Other Initiatives	<p>Indonesia Energy Community as they have activity on community assembling solar power.</p> <p>IBEKA, an Indonesian abbreviation of <u>Inisiatif Bisnis dan Ekonomi Kerakyatan</u> or in english People Centered Business and Economic Initiative. Who works in renewable energy and rural economic development.</p>	
17. Approximate Cost	USD 100,000	

Local Investment: SOUTH COAST TIMOR-LESTE

(MUNICIPIOS SUAI, MANUFAHI, MANATUTO, VIQUEQUE, AND LAUTEM)

The local Investment in Timor-Leste will be applied in Viqueque Municipality through two implementation activities. The first is the Ecosystem Approach to Fisheries Management concept on Mackerel Fishery, and the second activity is the implementation of Integrated Coastal Management approach in Manatuto Municipality, especially in Barique sub-municipio. Total coastal length covered in this intervention is approximately 100 Km. The coastal area is characterized by fringing reef that support semi-industrial and artisanal fishing that uses double-outrigger canoes and fiber-glass mono-hull vessels. These vessels mainly land their catches to supply the demand of seafood in Dili or for roadside sales.



SITE PROFILE

Geography

The island of Timor is part of the Malay Archipelago and the largest and easternmost of the Lesser Sunda Islands at the eastern end of the Indonesian Archipelago. The 15,007 square kilometers of rugged terrain that constitutes Timor-Leste encompasses the eastern half of the island of Timor. To the north of the mountainous island are the Ombai Strait and Wetar Strait, to the south the Timor Sea separates the island from Australia, while to the west lies the Indonesian Province of East Nusa Tenggara. The highest point of East Timor is Mount Tatamailau at 2,963 m.

Administrative Division

As far as administrative division is concerned, Timor-Leste is split into 13 municipalities: Bobonaro, Liquiçá, Díli, Manatuto, Baucau, and Lautém on the north coast; Cova-Lima, Ainaro, Manufahi and Viqueque, on the south coast; Ermera and Aileu, the two landlocked municipalities; and Oecussi-Ambeno, the enclave in Indonesian territory (Figure 1). The borders determining the 13 municipalities have been more or less the same since the last years of Portuguese administration. The majority of population is concentrated in Dili Municipio.

The 13 municipalities are subdivided into 67 sub-municipios. The smallest administrative division in Timor-Leste is the *suku* (village), which can comprise one or many *aldeias* (hamlets). The country is divided into 498 villages: Baucau has most villages (63), while Ainaro is the municipio with the least divisions (21 villages). The largest villages lie on the easternmost part of Timor-Leste, with Laline in Viqueque comprising of 212 km²; while the smallest villages are in Dili Municipio. The population distribution is also highly uneven, ranging from only 135 people in Fatululik in Cova-Lima, to Fuiloro in Lospalos, in the Lautem municipio, with a population of more than 10,000 inhabitants.

ATSEA2 implementation focuses on the six municipalities found along the southern border of the country with coastline along the Timor Sea, including **Cova Lima, Ainaro, Manufahi, Manatuto, Viqueque and Lautem**. The majority of implementation will take place in the eastern part in the municipalities of Manatuto, Viqueque and Lautem.

Figure 1 | Map of Timor-Leste



Going from west to east along the southern Timorese coast, the western-most municipio on the southern coast, bordering Indonesia, is **Cova Lima**. It had a population of 59,500 in 2010, living on an area of 1,226 km². Cova Lima municipio comprises the posto administrativo of Fatululik, Fatumean, Fohorem, Zumulai, Maucatar, Suai, and Tilomar.

Ainaro, to the east of Cova Lima, had a population of just under 60,000 in 2010 on an area of 797 km². Ainaro municipio comprises today the posto administrativo of Ainaro, Hatudo, Hatu Bulico and Maubisse. In addition to the official languages of the country, the majority of the population also speaks Mambai.

The next municipio, **Manufahi** had a population of 48,000 in 2010, living on an area of 1,325 km². It comprises the posto administrativo of Alas, Fatuberliu, Same, and Turiscari. In addition to the official languages of the country, the majority of the population speaks Mambai.

Manatuto is located in the central part of the country; and crosses from the northern to the southern coast. It had a population of 43,000 in 2010, on an area of 1,706 km². The longest river in Timor-Leste, the Laclo River, meets the sea on the northern coast of this municipio. Manatuto comprises the posto administrativo of Barique-Natarbora, Laclou, Laclubar, Laleia, Manatuto and Soibada. In addition to the official languages, the majority of the population speaks Galóli, which is also recognized as a “national language” by the Constitution.

On the south-east coast of the island is **Viqueque** municipio. It had a population of 70,000 in 2010, and is a large municipio with an area of 1,781 km². The Viqueque municipio comprises the posto administrativo of Lacluta, Ossu, Uatolari (formerly called Leça), Uato Carabau and Viqueque. In addition to the official languages of the country, the majority of the population speaks Macassai, similar to Baucau Municipio to the north of Viqueque.

Lautem lies on the eastern end of Timor Island, and also includes Jaco Island. With the population of almost 60,000 in 2010 and an area of 1,702 km², Lautem comprises the posto administrativo of Iliomar, Lautem Moro, Lospalos, Luro and Tutuala. In addition to the official languages of the country, the population speaks Fataluku, a Papuan language spoken in the islands of New Guinea. A great portion of the municipio finds itself in the Nino Konis Santana National park.

Access and Electricity

With respect to infrastructure, road conditions in Suai Loro could be rate in poor conditions. This includes both the road into the Suai municipio and to the Suai Loro village as well as roads within Suai Loro. Other

infrastructures components, such as traditional irrigation and water sanitation systems, are not adequate currently.

In Manufahi basic infrastructures is quite poor, including electricity (does not exist), road conditions (poor), water (no water pipe installations from the government yet), sanitation facilities and traditional irrigation not maintained.

In terms of basic infrastructure in Barique municipio, the road conditions are poor, and there is no public portable water or sanitation. As far as education facilities Barique has primary, secondary schools buildings as well as health center.

Demographics

The table below provides an overview of key socio-demographic data available for the municipalities relevant to this project: Lautem, Manatuto, and Viqueque. Data is sourced primarily from the National Demographic and Health Survey (NDHS) conducted in 2009-10 and the Population and Housing Census of Timor-Leste, 2010.

TABLE: OVERVIEW OF THE KEY DATA FOR MUNICIPALITIES RELEVANT TO ATSEA-2						
MUNICIPIO	LAUTEM		MANATUTO		VIQUEQUE	
Land area (% of Timor-Leste)	813 km ² (12%)		782 km ² (12%)		877 km ² (14%)	
Population (estimated)	57,000		37,000		66,000	
Average HH size	4.3		4.4		4.3	
Life expectancy at birth	57		58		52	
Median age	17.2		18.5		19.3	
Food insecurity % HH *	44%		53%		44%	
Percent Illiterate	61%		67%		61%	
% severe underweight (stunting)	20 (25 %)		2.8 (9.7 %)		7 (16 %)	
Average time to access water	40 mins		13 mins		40 mins	
Boat ownership, total and as % of HHs	216 (1.9%)		236 (3.4%)**		234 (1.7%)	
% population in agriculture, fishing and forestry activities	89% and cassava		89% maize cassava, rice,		91% cassava, maize, rice	

* food insecurity as percentage of households is based on 2005-06 data
 ** of which only 16 boats are registered on the south coast of the municipality

Source: Population and Housing Census of Timor-Leste, 2010, National Statistics Directorate (NSD) and United Nations Population Fund (UNFPA), 2011

Economy and Livelihoods

In recent years, Timor-Leste has moved from the category of a least developed country (LDC), with a 'low human development' score, to the category of "medium development countries". Overall HDI for Timor-Leste reached 0.620 in 2014.

Gross national income per capita in 2012 reached \$1,393. In 2007, the percentage of population living under 1.25 and 2 dollar a day was estimated at 37.5% and 72.8%, respectively. The percentage of population living below the national poverty line was reported by the World Bank in 2007 at 50%, with CIA estimates in 2009 of 41%.

The percentage of the population living in multidimensional poverty (a weighted deprivation score based on household deprivations in education, health and living standards) was estimated at over 68% of the total population. The multidimensional poverty index (MPI) for Timor-Leste was calculated by UNDP in 2012 at 0.36, the highest in the East Asia and the Pacific region, and well above the regional average of 0.127.

The World Development Report 2011 found that on average, post-conflict countries take between 15 and 30 years – a full generation – to transition out of fragility and to build resilience. It is against this backdrop that social and economic development in Timor-Leste can be seen as remarkable.

The National Demographic and Health Survey (NDHS) of 2010 found that the majority of men (85%) and about two-fifths (40%) of women were employed at the time of survey. Not surprisingly, the majority of rural population is employed in agriculture and rate of employment is reported as higher than in urban areas. However, rates of employment in a society with high rates of subsistence farming may not be especially meaningful. Four-fifths or 80% of all ‘working’ women reported not being paid for their work. This percentage is highest for women engaged in agricultural work.

The issue of limited household access to cash, and in particular women’s access to cash, remains pervasive (Mills et al, 2013). This issue is particularly relevant in terms of lack of access to cash for large purchases (e.g. fishing gear), investments (e.g. starting small businesses) and opportunities in other alternative livelihood activities. In discussions, this issue was raised predominantly by women who felt they wanted to – and were unable to - engage in livelihoods that were not solely dependent on the men fishing.

Rural men and women in Timor-Leste often share productive workload, although some of the activities are gender specific. For example, Mills et al (2013) report the primary livelihood activities in coastal communities on Atauro Island as fishing and agriculture, with both women and men directly involved in both activities. Fishing is primarily done close to shore by means of spear fishing and use of gill nets from canoes (paddle or small engine), with women gleaning for shellfish and seaweed. In agriculture, women are responsible for planting, cleaning and harvesting gardens, while men only engage in agricultural activities at certain times of the year (maize harvest). Mills et al (2013) also report that mostly women were involved in selling either fish or agricultural produce at the market. Fish that is not sold fresh is dried and salted by women for consumption or sale at a later date. Some women also purchase fresh fish from Indonesia to dry and sell.

Primary data collected by Larson (2015) and for this project reveals a similar division of labor. Fishing from boats was reported as a man’s activity, while women and children engaged in gleaning for shellfish and seaweed. Women were mainly responsible for the sale of fish, which in these communities was mainly done at roadside stalls – although both men and women participate in this activity (Figure 2). Fish processing (drying and grilling) was also reported by women, but is region specific. For example, it is a common activity along northern coast of Manatuto municipality (Figure 2), but there was very little interest recorded in fish processing in Liquica and Bobonaro municipalities.

FIGURE 2: WOMEN AND THE FISH



Women and girls selling fresh fish at the road side, Suco Vemasse, Baucau Municipio

Photo credit: B. Ficcadenti / USAID Adapt Asia-Pacific



Women are engaged in both fish grilling and sale of the grilled fish at the road side, Metinaro sub-municipio of Dili Municipio.

Photo credit: S. Larson / USAID Adapt Asia-Pacific

In Suai Loro, community members reported that men act as head of family, responsible for farming and fishing, while women are mostly responsible for domestic works at home.

Communities along the southern coast pretty much depend on natural resources to sustain their daily life, including through subsistence fishing, use of mangrove trees for constructions materials, fuel wood and traditional medicinal purposes.

In the Barique village of Manatuto, mostly occupations of local community in this village are farmer and Fishermen. Usually, seasonal based on the weather conditions. For example if heavy wind in the sea then shifting to farming. Since community in this villages are remote from city their commercial system rather barter agriculture productions than paying with money (corn from upland with rice, salts from the low land community). Below are agriculture products such as; Fish, buffalo, tua sabu (traditional wine and rice, cassava and banana).

Fisheries

The fisheries sector is considered an important pillar of the rural economy, together with agriculture (crops and livestock). With a coastline of over 700 km and claim on an Exclusive Economic Zone of 200 nautical miles, Timor-Leste is well endowed with marine fisheries resources. However, weaknesses in policy and limited capacity to manage, monitor, and protect these resources exposes the country to illegal, unregulated and unreported fishing by foreign fleets that threaten to deplete fish stocks. While these issues are being addressed, local fisheries-dependent communities operating at the subsistence level are likely to be the most severely affected. (CTSP, 2011)

Gender Issues and Women's Participation in Coastal Management

The Gender Development Index of Timor-Leste is similar to the 'medium human development' countries median score, at 0.875 (122th rank), while the Gender Inequality Index (GII) value is not available for Timor-Leste.

Education: 37% of women in Timor-Leste have never been to school. About 30% have some primary education, 26% have some secondary education or have completed secondary school, and about 2% of women have more than secondary school education. Literacy rates are however much lower in municipalities relevant to this project (Table 3).

Fertility levels and trends: The fertility level in Timor-Leste, at 5.7 births per woman, is the highest in Asia. The marked increase in fertility, from 4.4 to 7.8 children per women, was recorded in the period of 1995-2003. This increase can be attributed to a virtual collapse of the overall health system, and particularly the family planning program, following the struggle for independence from Indonesia and the ensuing chaos.

The level of fertility is inversely related to women's educational attainment, decreasing rapidly from 6.1 births among women with no education to 2.9 births among women with more than secondary education. Fertility is also inversely associated to wealth, with the poorest women having, on average, about three children more than the wealthiest women. For most rural women, the birth interval is about 2 years. The rate of adolescent fertility remains high, at 65.8 births per 1,000 women aged 15-19.

Maternal and child health: Maternal mortality in Timor-Leste remains relatively high, although it has dropped from around 1,000 deaths of women per 100,000 live births in 1990 to 557 (with a confidence interval of 408-706) in 2010.

Under-five mortality was reported as 6,400 deaths per 100,000 live births in 2010, dropping from 7,900 for the 2000-2005 period. The nutritional status of children remains poor: 45% of children under age 5 are underweight, and 15% are severely underweight. Further, 58% of children under age 5 are stunted (33% severely stunted) while 19% wasted (7% severely wasted).

In addition, 27% of women were found to be malnourished, a decrease from 38% in 2000. However, malnutrition among women remains a serious public health concern in Timor-Leste.

Domestic violence: Perceptions and attitudes towards domestic violence are a rather good indicator of overall gender relations in the country. Nationally, more than one-third of women (38%) have experienced physical violence since age 15, with 28% experiencing physical violence sometime in the past 12 months. Percentages of women who have ever experienced physical violence vary significantly based on the municipio they live in (Table 4). The main perpetrator of violence in all cases is the current husband (74%).

TABLE 4. EXPERIENCE OF PHYSICAL VIOLENCE* AS % OF ADULT FEMALE POPULATION			
%	LAUTEM	MANATUTO	VIQUEQUE
EVER	53	16.5	21
OFTEN	1	0	2.3
OFTEN OR SOMETIMES	42.3	10.6	20.4

* in 12 months preceding NDHS 2010 survey

Source: NDHS 2010

Attitudes towards wife beating are particularly telling. More than 80% of all men and 86% of all women surveyed agree that a husband is justified in hitting or beating his wife in certain circumstances. Greater self-esteem can be noted among women in Viqueque Municipio, including their attitudes towards domestic violence, and this is linked to low prevalence of dowry payment for wife in this municipio (NDHS, 2011).

Experience of sexual violence is much lower, at 3%. The main perpetrators of sexual violence against ever-married women are current husbands/partners (71%). About one in five women (24%) who experience violence seek help.

Such high levels and acceptance of domestic violence have implications well beyond physical and physiological trauma for women. Among other considerations, to speak of equality in joint decision-making and women’s empowerment in the in a society where women understand all too well consequences of disagreement is somewhat absurd.

Key Marine and Coastal Habitats

Key marine habitats found in Suai Loro include mangroves (mostly of the *Avecinia* and *Rizhpora* species), and the Walaleti fishing ground. Additionally, turtles, sea birds and whale can be seen from the beach.

Communities along the southern coast maintain strong traditional practices, including a belief that ancestors are present in particularly big fish, big trees, big stones and also crocodiles in the area. The communities consulted indicated that any new development or alterations to the natural environment should be traditionally permitted or authorized by this means, with a special indication of how they indirectly conserve natural resources.

In the Barique sub-municipio of Manatuto, ecosystems include mangrove and coral but not much seagrass. Species that exists in Barique include; turtles, whale, sardine, red snapper and mud crab. The head of the village pointed out that there are two main fishing ground namely; Namkuru and Tokodedek. He also emphasized that they have traditionally conservation mechanisms, termed “Tara Bandu”.

Disasters and Climate Change Vulnerability

The coastal population of Timor-Leste is particularly vulnerable to the threats of sea level rise and extreme events. Warming waters and changes in storm patterns that are already adding to the natural dynamism of the coastal zone are accelerating due to climate change. Approximately 40% of the population lives in the coastal areas. This is comprised of almost 560,000 people residing in coastal and lowland areas with an

elevation of up to 500m. They are not only susceptible to flash floods and landslides originating from the upstream hill areas, but are also likely to face increased incidents of sea surges and storms. These hazards have serious impacts on coastal and marine ecosystems, especially for mangroves, estuaries and coral reefs, which are already under stress because of coastal zone development and population growth. The coastal zone and habitats of Timor-Leste are already subject to a high degree of human dependency and resource use. Increased storminess, wave swells, sea surges and sea level rise will threaten the country's still fragile development gains. Coastal impacts are expected to include: increased groundwater contamination by salt water intrusion; direct damage to physical infrastructure and disruptions in water supply services, road networks, buildings, port operations as a result of coastal submersion; damage and disruption to coastal power stations and transmission infrastructure through erosion, flooding and saltwater damage; flooding and destruction of coastal settlements; direct physical damage to forest and terrestrial ecosystems; reduced health, diversity and productivity of coastal and inshore marine ecosystems and species; loss or destruction of coastal vegetation, species and habitats; physical damage to coral reefs and mangroves by strong wave action; increased erosion of beaches, shorelines and coastal land, loss of breeding and nesting habitats; increased damage to and destruction of bridges, roads, roadsides, culverts, drainage structures and river embankments; increased risk of damage to offshore oil and gas infrastructure and disruption to operations; increased risk of accidents, spills, leaks and pollution resulting from flooding and wind damage to fuel storage facilities and other installations; damage to schools, homes and community buildings such as churches and health clinics.

High dependence on natural resources makes the people of Timor-Leste vulnerable to the effects of resource over-exploitation, as well as larger forces including climate change, civil unrest, internal migration of people, and natural disasters. Diversifying livelihoods and reducing reliance on marine resources is a key prerequisite for the long-term development of coastal communities in Timor-Leste (CTSP, 2011).

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Proposed Intervention No. 15				
EAFM: Women's cooperative for fish post-harvest livelihood improvements				
1. Thematic Area	Establishing and strengthening alternative resilient livelihoods			
2. ATSEA2 Outcome	This activity is proposed under 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			
3. Target Communities and Site Description	Country: Timor-Leste	Município: Viqueque		
	This is a community level activity proposed for areas where there is market potential for entrepreneurship (ideally in close proximity to a tourism market.) Specific communities for this activity will be identified as suitable and willing to participate in the activities proposed during the implementation phase. The direct beneficiaries are estimated as 20 participating women in each of two communities and their families (average six per household, 51% male). Indirect beneficiaries are assumed to be the population of the community.			
	Beneficiaries	Women	Men	Total
	Approximate number of direct beneficiaries:	40	0	40
Approximate number of indirect beneficiaries:	118	122	240	
4. Baseline	<ul style="list-style-type: none"> - Strong reliance on natural-resource based livelihoods, highly vulnerable to projected climate changes - Limited financial resources to invest in alternative livelihood options - Limited human capital with low literacy and numeracy levels and extremely limited human capital in terms of understanding of basic principles of business management and market identification - Limited human capital regarding fish processing techniques for value improvement - Current alternative livelihood initiatives hindered by lack of cash-flow and/or access to market with limited benefits from market sales 			
5. Intervention Description	<p>To address the predicted effects of climate change on the coastal communities through livelihood diversification, the proposed intervention will raise the capacity of women to engage in small-scale fish processing businesses. This will be achieved through provision of fish processing and business skills training to women in the selected communities. Home-based small-businesses are a culturally accepted addition to the household budgets, and are predominantly women's responsibilities. Establishment or improvements to small-businesses is proposed as one of the livelihood options proposed by this project. This activity will aim to build the capacity of women to engage in livelihood activities not entirely dependent on natural resources and thus strengthening their resilience to impacts of climate change while reducing pressure on marine and coastal resources.</p> <p>The design of all project-related on-the-ground interventions will follow a participatory approach. As a part of this approach, a women's group will be formed (or strengthened where it already exists) in each community and will be actively engaged in decision making and monitoring of all activities funded in their community. These women's groups will also serve as the key delivery mechanism for the present activity. This approach is expected to promote 'buy-in' and ownership of the project's activities by local communities, contribute to the long-term sustainability of the project's outcomes.</p> <p>The skills training will start with the pre-assessment of the context and current status. The actual training will be delivered in two parts: the first focusing on the technical fish processing skills (as identified by the community as desirable), and the second focusing on business and financial skills. The participants are expected to be able to identify a market, make a plan, establish pricing, and understand market principles. The training will also focus on financial management, delivering a simple explanation of household finance, basic accounting, savings and income/family budget.</p>			

Proposed Intervention No. 15	
EAFM: Women's cooperative for fish post-harvest livelihood improvements	
	These initial trainings will be followed by mentoring for the duration of the project. The trainer will monitor progress of the participants on a regular basis, and will provide further targeted training and advice, as required. For women willing and ready to move to the next step but without the means to get the business idea started, the project will provide seed money to support women with well formulated business ideas.
6. Rationale (Problem Identification)	<p>Many households in the ATS region have limited resources and capacities, and local communities remain highly vulnerable to the effects of climate change. This is exacerbated by the fact that these communities have few alternatives to access alternative incomes. The vulnerability of the coastal communities in the region to climate change will likely further increase owing to maladaptive responses that cause further environmental degradation.</p> <p>This project therefore proposes to explore livelihood activities that increase adaptive capacity of women and thus their communities, by proposing activities less susceptible to climate change or activities that are less reliant on vulnerable natural resources, such as home-based small business activities, described here.</p>
7. Target Beneficiaries	The immediate beneficiaries are the women in participating communities that take part in the training and women's groups, who will benefit immediately from increased capacity and confidence. Direct beneficiaries also include the families of the women, who will benefit from the increased income generated from sales of products. The families will also benefit from further diversified livelihoods, strengthening their resilience to external shocks, like disasters and climate change impacts.
8. Expected benefits	<p>As a result of the training, human capital in the communities will increase and facilitate the development of alternative livelihoods. Social capital will also be enhanced through training and other activities that bring people together for improved resilience. Financial capital in target households will increase as a result of increased income from small-business activities.</p> <p>The successful establishment or improvement of small-businesses based on fish processing following the training is expected to increase interest and opportunity in such practices, indirectly benefitting the community as a whole and likely increasing the numbers of beneficiaries in the long term.</p>
9. Proposed Implementation Arrangements	<p>This activity should be outsourced to an NGO based in Timor-Leste already working in the area. Ideally, it would be the same organization involved in administering proposed intervention 16 and 18 in order to reduce the administrative costs and seamlessly overlap activities where fruitful. A possible partner is Mercy Corps.</p> <p>Contact Details:</p> <p>Joanna Walsh Country Director, Mercy Corps Timor-Leste 77399045, Jwalshe @ tl.mercycorps.org</p>
10. Proposed specific activities	<ul style="list-style-type: none"> - Identification of existing Women's Groups or similar organizations engaged in the location proposed for intervention. - Identification of the current knowledge and the needs in terms of skills training - Identification of the training providers and implementing NGO/ agency - Design and delivery of training - For women willing and ready to move to the next step: the activities might also include providing seed money to support women with the business idea but no resources to get it started. In order to qualify for the seed money, women would need to prepare a business proposal and financial plan. - Mentoring and follow-up
11. Activity Outputs	<ul style="list-style-type: none"> - Fish processing and business skills training for home-based or communal activities conducted in at least 2 climate vulnerable communities in Timor-Leste's

Proposed Intervention No. 15		
EAFM: Women's cooperative for fish post-harvest livelihood improvements		
	southern coast - Women's Groups formed, functioning and actively involved in decision making and monitoring, in each of the communities engaged in project activities, including this activity.	
12. Indicators	Indicator	End of Project Target
	Alternative livelihoods introduced	40 women introduced to alternative livelihoods
13. Monitoring and Evaluation Criteria	Number of women introduced alternative livelihoods	
14. Risk Factors	<ul style="list-style-type: none"> - Women unable to engage due to overburdening, including high numbers of dependent children. - Communities are unwilling to accept women's training as beneficial. - Training received does not result in improvements in cash generation, and is thus not perceived as beneficial by the communities. - Training received results in cash generation, but cash is not utilized for the benefit of the family. - New enterprises create a disproportionate burden of work for women. - Uptake of knowledge is low and resilience is not significantly improved. 	
15. Risk Mitigation	Activities designed provide opportunities for women to engage and benefit, including enablers for engagement (such as child care, where appropriate); and consider ways in which to avoid over-burdening of women and girls as the result of project implementation.	
16. Links with Other Initiatives	Worldfish	
17. Approximate Cost	USD 75,000	

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Proposed Intervention No. 16																
EAFM: Pilot sustainable fish feed production/sourcing																
1. Thematic Area	Strengthening Alternative Climate Resilient Livelihoods															
2. ATSEA2 Outcome	This activity is proposed under 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															
3. Target Communities and Site Description	Country: Timor-Leste		Município: Manatuto													
	Direct Beneficiaries will be 20 women in the community where a Women's Group has been formed, and their families. Indirect beneficiaries are assumed to be the whole community (and potentially broader if the pilot is successful and duplicated).															
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Beneficiaries</th> <th style="text-align: center;">Women</th> <th style="text-align: center;">Men</th> <th style="text-align: center;">Total</th> </tr> </thead> <tbody> <tr> <td>Approximate number of direct beneficiaries:</td> <td style="text-align: center;">20</td> <td style="text-align: center;">0</td> <td style="text-align: center;">20</td> </tr> <tr> <td>Approximate number of indirect beneficiaries:</td> <td style="text-align: center;">2,450</td> <td style="text-align: center;">2,450</td> <td style="text-align: center;">4,900</td> </tr> </tbody> </table>				Beneficiaries	Women	Men	Total	Approximate number of direct beneficiaries:	20	0	20	Approximate number of indirect beneficiaries:	2,450	2,450	4,900
	Beneficiaries	Women	Men	Total												
Approximate number of direct beneficiaries:	20	0	20													
Approximate number of indirect beneficiaries:	2,450	2,450	4,900													
4. Baseline	<ul style="list-style-type: none"> - Increasing interest in fish protein as a way out of malnutrition - Milk fish and mud crab hatchery completed and operational, but producing sub-optimal numbers of hatchlings due to low demand - Donor initiated fish farms are in operation - Low profitability and dwindling interest in pond fish farming as the activity is extremely time consuming but of low profitability. The main costs is fish feed. 															
5. Intervention Description	<p>Aquaculture, in particular milk fish and mud crab farming, is seen as one of the sustainable ways to increase adaptive capacity of the coastal communities to climate change. Several donor projects have engaged in the aquaculture developments, including setting of a milk fish and mud crab hatchery and a number of pond developments. However, one hurdle identified by fish-farmers is the price of feed, currently imported and purchased at the price hindering profitability of the enterprises. This activity thus proposes to explore the feasibility of the aquaculture feed production in Timor-Leste.</p> <p>Commercial company Kmanek Trading, in collaboration with Market Development Facility (MDF), has conducted a pre-feasibility study on animal feed. The pre-feasibility study mainly concentrated on chicken and pig feed, but also briefly assessed feed for aquaculture. Overall, the study indicates a high demand for animal feed in the country. However, the study also identifies two main obstacles for the business development: 1) lack of continuity of raw materials supply, as raw materials mainly come from agricultural production and thus are only seasonable available; and 2) lack of food certification in the country. World Fish is currently undertaking a study of the possibilities for aquaculture feed.</p> <p>Building on the work of WorldFish, the proposed intervention would further explore aquaculture feed potential, including raw materials and overall business viability. Although not necessarily financially viable as a commercial enterprise, aquaculture feed production might be successfully developed as a supplementary activity for the community group. The present activity will implement the recommendations of the WorldFish study in order to pilot local production of fish feed in a community that is already undertaking aquaculture activities. This activity will be developed as a women's activity. Increasing women's capacity to generate cash would not only bring direct benefit through improvement of family's quality of life, but will also play an important role in establishing a respected and empowered position for women both within the household and in the community.</p>															
6. Rationale (Problem Identification)	Extremely low fish protein consumption has been identified as one of the priority areas for interventions in Timor-Leste. Projected climate change impacts are likely to create increasing pressure on Timorese fisheries, and thus aquaculture is being promoted as a sustainable way to increase food security of coastal communities vulnerable to the effects of climate change. This is because such communities rely strongly on livelihoods that will be negatively affected by projected changes in regional climatic conditions, such as increase in length of dry season, increased															

Proposed Intervention No. 16		
EAFM: Pilot sustainable fish feed production/sourcing		
	intensity of rain and wind events, and higher temperatures. The vulnerability of communities in Timor-Leste to climate change will further increase owing to maladaptive responses that cause further environmental degradation. Poor harvests will likely result in increased efforts on communal areas, such as increase in fishing effort, reef and shallows gleaning, and use of mangrove. Although aquaculture developments are underway, they all rely on imported and rather expensive feed, the cost of which is hampering financial viability of these enterprises. This project therefore proposes to pilot local production of affordable fish feed.	
7. Target Beneficiaries	Eventual beneficiaries will be families of the women taking part in the fish feed producing activity in the participating community. Successful establishment of a fish feed producing business is expected to increase interest in such practices and thus the numbers of beneficiaries in the long term.	
8. Expected benefits	Should the activity prove feasible: <ul style="list-style-type: none"> - Families will benefit from income derived from the sale of fish feed; - The members of the Women’s Group will benefit through enhanced capacity and income; and - Coastal Ecosystems will benefit from reduced anthropogenic pressure as alternative cash-generating activities develop. 	
9. Proposed Implementation Arrangements	This activity should be outsourced to an NGO based in Timor-Leste working in aquaculture with communities and women’s groups Timor-Leste. Ideally, it would be the same organization involved in administering the fish processing and business skills intervention (Proposed Intervention 15) in order to reduce the administrative costs. A possible partner is Mercy Corps, which has significant experience with aquaculture in the country. <i>Contact Details:</i> Joanna Walsh Country Director, Mercy Corps Timor-Leste 77399045, Jwalshe @ tl.mercycorps.org	
10. Proposed specific activities	<ul style="list-style-type: none"> - Identification of an NGO best positioned to undertake this work, one with previous experience in aquaculture (i.e. MercyCorps). - Based on the outputs of the World Fish study, identify a community along the southern coast where aquaculture is already taking place and the community is interested in exploring locally produced fish feed. - Formation of the Women’s Group in the participating community. - Awareness raising of women and men in the community about climate resilience and alternative livelihoods, with particular attention on sensitizing men about the value of engaging women in this activity. - Work with the community and other practitioners/experts in the country to design a possible fish feed production line based on the resources available. - Training, through the Women’s Group meetings on the fish feed development and the financial skills to test viability, followed by learning-by-doing. - Ongoing assistance with phasing and incremental changes to practices accompanied by monitoring of the costs and benefits. 	
11. Activity Outputs	<ul style="list-style-type: none"> - Establishment of a home-based fish feed business. - Report on the success of the pilot and recommendations for future work. 	
12. Indicators	Indicator	End of Project Target
	Alternative livelihoods introduced	20 women provided alternative livelihoods
13. Monitoring and Evaluation Criteria	Number of women introduced to alternative livelihoods	

Proposed Intervention No. 16 EAFM: Pilot sustainable fish feed production/sourcing	
14. Risk Factors	
15. Risk Mitigation	
16. Links with Other Initiatives	Building on fish ponds work conducted by ACDI/VOCA and USDA. Building on the fish ponds study of World Fish. One of top government priorities hence strong links with the MAF. Collaboration with relevant proposed projects including those by FAO, NZAid and Norwegian Aid.
17. Approximate Cost	USD 150,000

Proposed Intervention No. 17 CCA: Coastal vegetation restoration				
1. Thematic Area				
2. ATSEA2 Outcome	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			
3. Target Communities and Site Description	Country: Timor-Leste	Município: Manatuto	Posto Administrativo: Barique	
	Area of Coverage:	50 ha / 10,000 ha total under ICM		
		<u>Women</u>	<u>Men</u>	<u>Total</u>
	Approximate number of direct beneficiaries:	2,450	2,450	4,900
4. Baseline	<p>Mangrove area in Timor-Leste is around 1800 ha of which 1050ha are on the south coast (Boggs et al 2009).</p> <p>Boggs et al. (2009) identified 19 mangrove species, and indicated a clearly defined pattern of zonation, which is typical in mangroves. The mangrove communities occupying the greatest area include Rhizophora, Sonneratia, Ceriops and Avicennia/Lumnitzera.</p> <p>The size of the area of mangroves and dominant species in Barique is not available.</p>			
5. Intervention Description	Implement good practices for mangrove restoration and riverbank stabilization works together with local communities in Barique posto administrativo, and incorporate key lessons and outcomes from other relevant projects.			
6. Rationale (Problem Identification)	The threats to mangrove habitats are harvesting for timber and fuelwood. Hinterland mangroves are often cleared to make way for brackish water shrimp or fish ponds. Timor-Leste has lost 40% of its mangrove cover over the period 2000–2008 and 80% loss of total mangrove habitat since 1940 (Boggs et al 2009)s			
7. Target Beneficiaries	Coastal villages and fishers of Barique			
8. Expected benefits	Improved fish habitat for fish stocks Reduced coastal erosion and protection against storms			
9. Proposed Implementation Arrangements	Project could be implemented in conjunction with municipio authorities and/or a local NGO.			
10. Proposed specific activities	<ul style="list-style-type: none"> • Conduct village-level ecosystem, social, and economic baseline survey. • Establish x working groups • Community awareness with households and school students on the importance of mangrove coastal ecosystems to foster a sense of stewardship • Training of xx community members in mangrove ecology, species identification, rehabilitation, seedling preparation, planting, and maintenance. • Planting of xx mangrove seedlings in prepared, protected blocks • Establish community group to monitor and care for the mangrove ecosystem. 			
11. Activity Outputs	Restoration of mangroves to prevent shoreline erosion.			
12. Indicators	Indicator	End of Project Target		
	ha of mangroves restored	50 ha		
13. Monitoring and Evaluation Criteria	<p>Level of awareness with regards to links between improved ecosystem management and livelihoods and food security – disaggregated by gender (%)</p> <p>Wellbeing satisfaction score – process (from 0 not satisfied at all to 10 very satisfied with implementation of the intervention, i.e. engagement, respect, responsiveness of the NGO)</p>			

Proposed Intervention No. 17 CCA: Coastal vegetation restoration	
	Wellbeing satisfaction score – outcomes (from 0 not satisfied at all to 10 very satisfied with the outcomes of the intervention, i.e. cash generated, time required/burden, improved nutrition).
14. Risk Factors	Lack of participation from community Alternative wood sources or livelihoods not found Weather conditions prevent planting or establishing of mangroves
15. Risk Mitigation	Engagement with community early to understand issues and explore alternate options sourcing wood. Weather conditions – project will be based on best science available to ensure the correct mangrove species are planted for the area. Give the timescale of ATSEA, poor weather events should not delay planting too long.
16. Links with Other Initiatives	There are 2 LDCE projects of relevance: “Strengthening Community Resilience to Climate-induced disasters in the Dili Ainaro Road Development Corridor, Timor-Leste” “Strengthening the Resilience of Small Scale Rural Infrastructure and Local Government Systems to Climatic Variability and Risk”
17. Approximate Cost	USD 100,000

Proposed Intervention No. 18 CCA: Drought resistant home gardens				
1. Thematic Area	Integrated Coastal Management and Climate Resilience			
2. ATSEA2 Outcome	Outcome 2.4 <i>Integrated coastal management, incorporating climate change adaptation considerations, implemented at the local level towards more sustainable use and conservation of ecosystem goods and services</i>			
3. Target Communities and Site Description	Country: Timor-Leste	Município: Manatuto	Posto Administrativo: Barique	
	<p>This activity will target 2 communities in Barique sub-município that are particularly vulnerable to climate change, based on the climate change vulnerability assessment undertaken under Output 2.4.1.</p> <p>Direct Beneficiaries are assumed to be the 20 women in each of 2 communities that are directly involved in training and establishing the drought resistant home gardens. Their families are also considered as direct beneficiaries (average family size of about 6 and 51% male according to the 2010 census). Indirect beneficiaries are assumed to be the entire population of the ICM area in Barique sub-município.</p>			
		<u>Women</u>	<u>Men</u>	<u>Total</u>
	Approximate number of direct beneficiaries:	40	0	40
Approximate number of indirect beneficiaries:	118	122	240	
4. Baseline	<ul style="list-style-type: none"> - Strong reliance on natural-resources based livelihoods highly vulnerable to projected climate changes - Limited financial and other resources to invest in alternative livelihood options - High water scarcity, in particular in dry season - Current farming techniques and crop ranges resulting in both poor quality and shortages of food - Limited benefits from market sales and poor access to market 			
5. Intervention Description	<p>To address the anticipated effects of climate change on the coastal communities, the proposed intervention will raise the capacity of women in selected communities to garden in water-scarce conditions. This will be achieved through the implementation of agricultural practices that allow for gardening in drought conditions, such as keyhole or bottle gardens. Home gardens are a common addition to the main cropping areas of most rural households in Timor-Leste, and are predominantly women's responsibility. Establishment or improvements to home gardens will be proposed to the communities as one of the livelihood options proposed by this project.</p> <p>As a result, the interventions will improve agricultural productivity and consequently strengthen the livelihoods of local communities. These alternative livelihoods will alleviate the demands and stress currently posed on other coastal resources.</p> <p>Furthermore, the design of on-the-ground interventions will follow a participatory approach. In particular, the proposed project will facilitate the involvement of local communities in selecting interventions that are tailored to their specific conditions. As part of the ICM implementation, women's group will be formed in each suco/ aldeia involved and will be actively engaged in decision making and monitoring of all activities funded in their community. This approach will promote 'buy-in' and ownership of the project's activities by local communities. This will contribute to, in the long-term, sustainability of the project's outcomes. In addition, the sustainability of the project will be further facilitated by establishing collaborative relationships with relevant partners such as local NGOs and MAF extension officers at the sub-national level.</p> <p>Both food quality and quantity have been identified as barriers to improvement in quality of life of vulnerable people in Timor-Leste. Home gardens will consist of a variety of fruit and vegetables that will increase both quality of the diet as well as</p>			

Proposed Intervention No. 18
CCA: Drought resistant home gardens

food security. The establishment of the home gardens will be accompanied by a community outreach campaign. During this campaign, local communities will be sensitized concerning the objectives, benefits and practical implementation of the project's activities in an appropriate language and format.

Example photographs of keyhole and bottle gardens:



<p>6. Rationale (Problem Identification)</p>	<p>Most households in Timor-Leste have limited resources and low food security, and local communities thus remain vulnerable to the effects of climate change. This is because such communities rely strongly on livelihoods that will be negatively affected by projected changes in regional climatic conditions, such as an increase in the length of the dry season, increased intensity of rain and wind events, and higher temperatures. The vulnerability of communities in Timor-Leste to climate change will further increase owing to maladaptive responses that cause further environmental degradation. Poor harvests will likely result in increased efforts on communal areas, such as increase in fishing effort, reef and shallows gleaning, and use of mangroves. This project therefore proposes to explore livelihood activities that increase adaptive capacity of women and thus their communities, either by proposing activities less vulnerable to climate change, such as drought-resilient home gardens described here, or activities that have lesser reliance on vulnerable natural resources, such as home-based small business activities, described elsewhere.</p>
<p>7. Target Beneficiaries</p>	<p>Initial beneficiaries are the families of the women taking part in the activity in participating communities. Successful establishment of demonstration home gardens is expected to increase interest in such practices and thus the numbers of beneficiaries in the long term. Families will benefit from increased quality and quantity of food and from income derived from the increased sale of market produce. The women's groups and their members will benefit through enhanced capacity and confidence.</p>
<p>8. Expected benefits</p>	<ul style="list-style-type: none"> - Drought-resilient home gardens will be implemented as to increase household food security and also to allow generation of cash from the activities that do not put more pressure on coastal and marine resources. - Improved water management as well as the use of drought-resistant crops will form an integral part of this intervention, further increasing community resilience to climate change impacts. - Women's group will be formed in each suco/ aldeia involved in this activity and will be actively involved in decision making and monitoring. Home garden

Proposed Intervention No. 18 CCA: Drought resistant home gardens		
	<p>activities will be designed, implemented, maintained and monitored by, and provide benefits to, women and Women's Groups.</p> <ul style="list-style-type: none"> - Social capital will be enhanced through training and other activities that bring people together for improved resilience. 	
9. Proposed Implementation Arrangements	<p>This activity should be outsourced to an NGO based in Timor-Leste experienced in resilient agriculture and already active working with communities and women's groups in Timor-Leste. Ideally, it would be the same organization involved in administering the fish processing and business skills intervention (Proposed Intervention 15).</p> <p>A possible partner is Mercy Corps, which has significant experience implementing similar activities on the Northern Coast.</p> <p>Contact Details:</p> <p>Joanna Walsh Country Director, Mercy Corps Timor-Leste 77399045 Jwalshe @ tl.mercycorps.org</p>	
10. Proposed specific activities	<ul style="list-style-type: none"> - Identification of an NGO best positioned to undertake this work, one with previous experience in drought-resilient gardening (i.e. MercyCorps). - Identification of the communities interested in taking part in the activity based on the most vulnerable areas identified in the climate change vulnerability assessment. - Formation of the Women's Group in each participating community. - Awareness raising of women and men in the community about climate resilience and water management for increased food security, with particular attention on sensitizing men about the value of - Training, through the Women's Group meetings and learning-by-doing. - Ongoing assistance with phasing and incremental changes to practices. - Establishment of drought-resilient home gardens in at least 2 communities. - Facilitation of uptake of practices by other community members. - Monitoring and evaluation: Ongoing 	
11. Activity Outputs	<ul style="list-style-type: none"> - Drought-resilient home gardens designed, implemented and established in at least 2 climate vulnerable communities in Barique Sub-municipio projected to face increasing water shortages. - Women's Groups formed, functioning and actively involved in decision making and monitoring of ICM, in each of the communities engaged in this activity. - All of the activities designed provide opportunities for women to engage and benefit, including enablers for engagement (such as child care); and consider ways in which to avoid over-burden of women and girls as the result of project implementation. 	
12. Indicators	Indicator	End of Project Target
	Alternative livelihoods introduced	40 people provided alternative livelihoods
13. Monitoring and Evaluation Criteria	<ul style="list-style-type: none"> - Number of households and communities with more secure access to livelihood assets and methods – disaggregated by gender - Number of drought-resistant home gardens established and maintained - Level of awareness with regards to links between improved coastal ecosystem management and food security – disaggregated by gender (%) - Cash generated per women per year (\$) - Wellbeing satisfaction score (from 0 not satisfied at all to 10 very satisfied) of 	

Proposed Intervention No. 18 CCA: Drought resistant home gardens	
	process (i.e., engagement, respect, responsiveness) and outcomes (i.e. cash generated, time required/burden, improved nutrition).
14. Risk Factors	<ul style="list-style-type: none"> - Women unable to engage due to overburdening, including high numbers of dependent children. - Communities are unwilling to adopt new gardening methods. - Water-management techniques proposed do not result in sufficient improvements in length of gardening season and are thus not perceived as beneficial by the communities. - New gardening methods create a disproportionate burden of work for women. - Uptake of knowledge is low and resilience not significantly improved.
15. Risk Mitigation	<ul style="list-style-type: none"> - Collaboration with the UNICEF Timor-Leste project promoting community play-groups or similar, reducing the child-minding burden. - Intervention is implemented by a well-respected and dedicated NGO with prior experience with drought resistant gardening techniques. - Consultations with women's groups will design interventions for women that do not take too much time and are appropriate. - Community buy-in will be strengthened throughout the project through involving the community in decision making. - Training and increased awareness of the community will improve their understanding of the benefits of the water management, new gardening techniques, and mangrove forests. - Knowledge transfer will be conducted through mentoring as well as formal training sessions.
16. Links with Other Initiatives	<ul style="list-style-type: none"> - UNDP/GEF-LDCF Resilient Shorelines: the two projects can engage in experience sharing regarding climate resilient livelihoods - The Ministry of Agriculture and Forestry currently has ongoing outreach projects that promote best farming practices. This project will link into the efforts that are already being made by the Ministry. - The activity and associated campaigns will build on the experiences and tools that several organizations operating in Timor-Leste have already developed, such as but not limited to Haburas, Permatil, MercyCorps, Care International and FAO. - Concept of drought-resilient farming has been championed in Timor-Leste by MercyCorps and is currently undergoing trials. This project will directly build on and use the lesson learned by this work. - Collaboration with the UNICEF Timor-Leste project promoting community play-groups or similar will aim at addressing overburdening of women by providing some form of organized child-minding.
17. Approximate Cost	USD 100,000 over 5 years

Proposed Intervention No. 19				
EAFM, mackerel: Improved fishing gear/techniques				
1. Thematic Area				
2. ATSEA2 Outcome				
3. Target Communities and Site Description	Country: Timor-Leste	Município: Viqueque		
	Area of Coverage:			
		<u>Women</u>	<u>Men</u>	<u>Total</u>
	Approximate number of direct beneficiaries:	217	217	434
4. Baseline	<p>In 2015, 217 fishers (including all methods)</p> <p>27 boats with motors</p> <p>56 boats without motors</p> <p>Baseline production: 214 tons per year (2014)</p>			
5. Intervention Description	<p>Baseline assessment (stocks, fish profile).</p> <p>Develop indicators.</p> <p>Develop an EAFM plan and facilitate approval/endorsement.</p> <p>Establish a management authority (Viqueque Fisheries Office)</p> <p>Implement: capacity building, pilot measures such improved gear/techniques, temporal and/or spatial closures</p> <p>Monitoring and evaluation</p>			
6. Rationale (Problem Identification)	<p>Potential increased pressure on mackerel fishery, as a result of government plans to expand commercial fishing in the country.</p> <p>No management plan – lack of preparedness.</p> <p>Inefficient gear/techniques -</p> <p>Bycatch of sharks, rays, etc.</p>			
7. Target Beneficiaries	Active mackerel fishers: 217 registered			
8. Expected benefits	<p>Increase productivity through CPUE while decreasing ecosystem impacts, e.g., impacts on predators and localized depletion – sustainable recruitment of stock</p> <p>Increased preparedness for possible future expansion</p> <p>Framework for replication of improved management of small pelagic species ...</p>			
9. Proposed Implementation Arrangements	<p>Viqueque fisheries office – lead implementing partner (management authority)</p> <p>Training/capacity: fisheries management (e.g., World Fish, CI, SEAFDEC, Australian partners, etc.)</p> <p>Stock assessment: Balitbangkan,</p>			
10. Proposed specific activities	<p>Trial gear/technique implementation.</p> <p>Logging, measurement at landing sites – fish data collection</p> <p>Training of enumerators</p> <p>Regional exchange – also including other areas inside Timor-Leste</p>			
11. Activity Outputs	<p>TOR for Management Authority</p> <p>Stock Assessment</p> <p>Fisheries Profile</p> <p>Stakeholder mapping</p> <p>EAFM Plan – Viqueque Mackerel Fishery</p> <p>Monitoring Reports</p> <p>Case study</p>			

Proposed Intervention No. 19 EAFM, mackerel: Improved fishing gear/techniques		
12. Indicators	Indicator	End of Project Target
	% vessels applying improved gear/techniques	25%
13. Monitoring and Evaluation Criteria	Uptake by fishers of the proposed improved gear/techniques Replication in other areas Increase in Central funding to Management Authority	
14. Risk Factors	Low interest by fisheries – moderate/high	
15. Risk Mitigation	Up-front training – involvement by MAF HQ Involvement of local leaders (Suco)	
16. Links with Other Initiatives	ISLME Project: e.g., EAFM training World Fish: capacity building, local awareness SEAFDEC: training	
17. Approximate Cost	USD 75,000	

Proposed Intervention No. 20				
MPA: Strengthening LMMAs at Nino Konis Santana (awareness-raising)				
1. Thematic Area	Strengthening locally managed marine areas			
2. ATSEA2 Outcome	Outcome 2.3 Biodiversity conserved through rehabilitation and protection of coastal and marine habitats and protection of species			
3. Target Communities and Site Description	Country: Timor-Leste	Municipality: Lautem		
	Direct Beneficiaries are assumed to be the total number of LMMA members and indirect beneficiaries are assumed to be the total number of fishers in the area.			
4. Baseline	There are 3 LMMAs within the NKS National Park as follows:			
	No.	LMMAs	Total LMMAs group member	Fishing Center
	1.	Com	12	Com
	2.	Tutuala	7	Valu
	3.	Lore 1	38	Lori
		Total	57	175
	<p>Since 2010, Conservation International has been working with the 3 communities and the government in Timor- Leste to establish the first successful model of co-management of natural resources through the LMMAs. This model aims to equip the government and local communities with the necessary tools to manage marine and coastal resources that offer direct sustenance to fishing communities and that hold economic potential through ecotourism and improved access to markets. Fringing reefs and mangrove stands also provide important protection for coastal communities during natural disasters.</p> <p>Suco Com is a coastal village located at north coast of Lautem Municipality. Its population amounted to 2008 inhabitant (Census 2015) which consisted of 1053 women, 955 men and consisted of 454 households. Fishermen in the village Com is same as the fishermen who are in another village, the traditional fishermen. Each day of fishing off the sea approximately 3 hours and later.</p> <p>Suco Tutuala is a coastal village of Lautem Municipality and located at the tip of Timor-Leste. Total number of population in suco Tutuala is amount to 1309, with 698 women and 611 men and 257 households. Fishermen in the village are traditional fishermen and groups. Fishing uses traditional methods and activities generally do not extend more 3 miles from shore.</p> <p>Suco Lore 1 is a coastal villages of located on the south coast of Lautem Municipality. Suco has a population of 2269, being 1212 women and 1057 men. There are 518 households. Traditional fishing methods are employed, using small boats. Fishers generally do not go more than 3 miles from shore and for a few hours each day to catch fish.</p> <p>Within the Nino Konis Santana National Park and Marine Park, there is a significant lack of information on the socioeconomic demographics, status and livelihoods of the villages and hamlets within the National Park (including participation in subsistence activities, including fishing, and the level of food insecurity).</p>			
5. Intervention Description	Support implementation of the financial sustainability and updated management plan, 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., Reef Check/Reef Watch, seagrass, dugong and turtle monitoring programmes, ecotourism ventures, or mangrove watch etc as well as business and tourism skills.			
6. Rationale (Problem Identification)	<p>Edyvane et al 2012 discusses the issues in details and recommended that:</p> <ul style="list-style-type: none"> - Monitoring and management of coral reefs within the Nino Konis Santana Marine Park is a high priority. Effective monitoring will not only identify potential issues such as coral bleaching, coral damage and disease, introduced pests and 			

Proposed Intervention No. 20

MPA: Strengthening LMMAs at Nino Konis Santana (awareness-raising)

	<p>unsustainable harvesting, but will also importantly, provide a baseline to monitor the recovery of reefs.</p> <ul style="list-style-type: none"> - The very limited extent of coral reef, seagrass (and mangrove) habitats within the Marine Park, impose strong limits on available marine resources and levels of harvest (particularly reef fisheries). With increasing pressure on coastal marine habitats and their resources (for fuel, timber and food) in Timor-Leste (Sandland et al. 2001) and their limited extent - these habitats are highly vulnerability to further loss and over-exploitation. This underscores the need for a precautionary, adaptive approach to MPA zoning and also, emphasises the need for urgent progress on developing alternative sustainable livelihoods and implementing coastal protection, regulations and rehabilitation measures - The limited inshore coral reef habitat within the Marine Park, and relative absence of large, mobile and predatory fish species and commercially important invertebrates (despite the low level of commercial fishing activity), suggests that current levels of artisanal subsistence fishing within the park are already affecting some premium target fish species. Careful management of the fisheries resources within the Marine Park, including the establishment of highly protected management zones (ie. fish propagation areas), will be necessary to improve the numbers of large predatory fishes that are important for reef health (Myers et al. 2007, Griffin et al. 2008). - Illegal harvesting of turtles remains a major issue in the Nino Konis Santana National Park and Marine Park (and Timor-Leste). Community-based, turtle tourism in Timor-Leste, particularly the establishment of community-based, monitoring programs and turtle hatcheries, have great potential to create alternative livelihoods and shift local villages from illegally harvesting turtles to generating income from turtle ecotourism. Within the park, the coastal villages of Tutuala, Com and Lore, have significant potential to develop community-based, turtle ecotourism. - The development of game fishing operations provide opportunities for both, local income generation to communities within the Marine Park, and also, a source of data on fish stocks through the capture-tag-release of game fish species - Community-based fisheries management needs to be encouraged, including: (a) development of recreational fishing opportunities (charter operations, fishing lodges); (b) further capacity-building of the artisanal fishery (ie. fish handling, business skills, fishing cooperatives, marketing); (c) training and development of community-based, Indigenous marine rangers; and (d) identification of opportunities for greater participation of women in fisheries (potentially an aquarium fishery).
7. Target Beneficiaries	Members of the 3 LMMAs (Com, Tutuala, Lore 1)
8. Expected benefits	<p>Improved livelihoods through increased opportunities for tourism and fisheries</p> <p>Improved condition of coastal ecosystems within NKS where LMMAs are in place</p> <p>Strengthened capacity of the community in management of their natural resources and engagement in policy development, business skills and tourism and marketing</p> <p>Improved monitoring of the condition of marine ecosystems in NKS.</p>
9. Proposed Implementation Arrangements	Conservation International has been working with the communities who have LMMAs since 2010 so it will be important to engage them.
10. Proposed specific activities	<p>Consultation with the communities to understand key issues and needs in terms of capacity building and strengthening of the LMMA</p> <p>Subject to findings of consultation, implementation in partnership with communities and CI and other local NGOs activities that will work to address needs identified by community and Edyvane et al 2012. This could include Reef Check/Reef Watch,</p>

Proposed Intervention No. 20		
MPA: Strengthening LMMAs at Nino Konis Santana (awareness-raising)		
	seagrass, dugong and turtle monitoring programmes, ecotourism ventures, or mangrove watch etc as well as business and tourism skills.	
11. Activity Outputs	Updated LMMAs for each community Other outputs could include: <ul style="list-style-type: none"> - Business plan for tourism activities - Training materials for community in business skills, marketing etc - Monitoring materials associated with Reef Check, seagrass watch etc as well as reports from monitoring 	
12. Indicators	Indicator	End of Project Target
	# of LMMA members participating # ha of NKS under improved management	# of LMMA members participating # ha of NKS under improved management
13. Monitoring and Evaluation Criteria	Number of households and communities with more secure access to livelihood assets and methods – disaggregated by gender Level of awareness with regards to links between improved ecosystem management and livelihoods and food security – disaggregated by gender (%) Wellbeing satisfaction score – process (from 0 not satisfied at all to 10 very satisfied with implementation of the intervention, i.e. engagement, respect, responsiveness of the NGO) Wellbeing satisfaction score – outcomes (from 0 not satisfied at all to 10 very satisfied with the outcomes of the intervention, i.e. cash generated, time required/burden, improved nutrition).	
14. Risk Factors	Lack of participation from community Alternative livelihoods through tourism opportunities do not eventuate	
15. Risk Mitigation	Engagement with community early to understand issues and explore opportunities for tourism etc. and level of interest. Capacity needs assessment undertaken to ensure understanding of capacity gaps to allow appropriate activities to be developed to address these	
16. Links with Other Initiatives	Ongoing CI activities 2.3.2-29 Support the MAF protected area management in updating and strengthening the management plan for the NKS MPA, with the aim of improving management effectiveness. 2.3.2-30 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. 2.3.2-31 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.	
17. Approximate Cost	USD 180,000	

Local Investment: SOUTH FLY DISTRICT

Western Province, Papua New Guinea

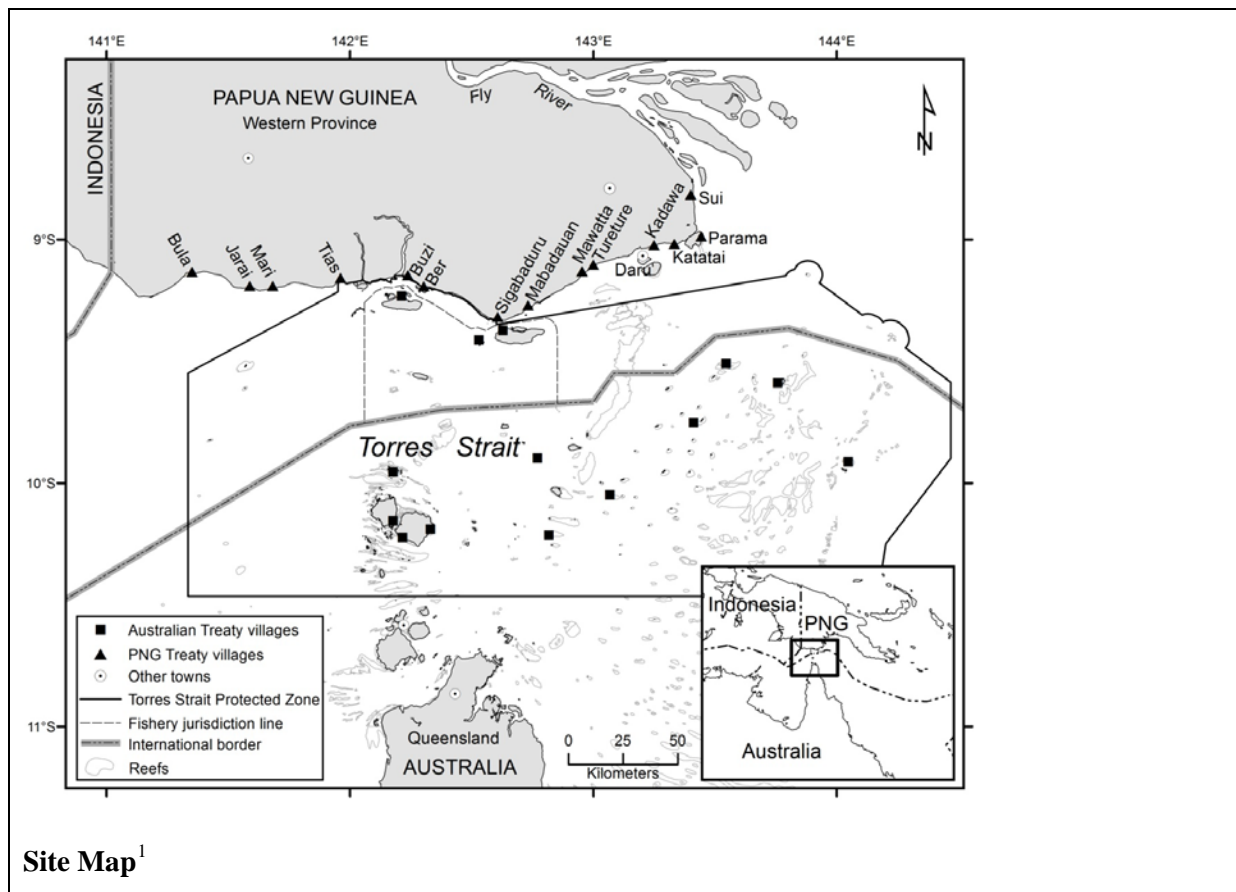
The South Fly local investment supports the implementation of the district artisanal fisheries management plan, which will be developed under Outcome 2.1 of the project. The scope of the local investment covers the 14 coastal Torres Strait Treaty villages. Geographically, the area starts near the mouth of the Fly River, near Daru Island, and extends approximately 250 km westward, to the Indonesian border. Through rights based management arrangements, improvements to fish gear/techniques are envisaged, and promotion of community monitoring, control, and surveillance is expected to contribute to reduced fishing pressure on target species of IUU fishing.

SITE PROFILE

Geography

The South Fly District is situated in the south-western corner of the Western Province, sharing a border with Indonesia to the west and Australia to the south. It is a coastal district, with the Torres Strait coastline running along the entire southern coast. The Fly River forms the north and east borders of the district.

The scope of the ATSEA-2 local investment in the South Fly District covers the 14 Torres Strait Treaty villages (“Treaty villages”) and Daru. Geographically, the area starts near the mouth of the Fly River and extends approximately 250 km to the west, to the Indonesian border.



According to the Papua New Guinea Fisheries Act of 1998, coastal fisheries extend 3 nautical miles (5.56 km) from the shoreline; thus the area of coverage is roughly 1,390 km² (139,000 ha).

¹ Source of map: Busilacchi et al., 2014

The southern reaches of the district covers the plains and the floodplains of the Oriomo, Pahoturi, Mai Kussa, Kutubura, Morehead, and Bensbach rivers.

There is a long dry season in the entire district from September to November and a wet season from December to June. Average rainfall in the south is approximately 1,500 mm. Altitude varies from sea level to 100 m northeast of Wipim. The district has a total land area of 31,864 square kilometers of which only 2,447 square kilometers are occupied.

Administrative Division

There are four (4) local level government (LLG) councils in the district. Three of the LLGs are rural: the Kiwai Rural LLG, Oriomo Bituri LLG, and the Morehead Rural LLG. The fourth LLG is the Daru Urban LLG.

The Kiwai LLG is a coastal LLG and most of its populations are located on the islands in the Fly River Estuary and along the coastline along almost the entire coastline towards Morehead.

The Morehead Local level government is the largest LLG in the district in terms of the land mass. The total land area of the LLG is 12, 840 square kilometers stretching back from the Indonesian border to the West, towards the Oriomo Bituri LLG to the east and the Middle Fly district to the north

The Daru Urban LLG is the only urban LLG in the district which has 4 wards serving a population of over 14,373 people on Daru Island. Daru is the main center for the district.

Access and Electricity

Much of the South Fly District is sparsely populated and access is difficult due to a lack of transport infrastructure. Most travel in the district is water based, by canoes and outboard motors, which are the most common transport along the many rivers and along the coastline. There are some limited dirt roads in the district especially around Morehead in the west of the district.

According to the 2013-2017 South Fly Development Plan, the baseline access to electricity is only 12.4% of households, and a goal of reaching 27% by the year 2017.

Demographics

Based upon the 2013-2017 South Fly District Development Plan, the total population of the district in 2012 was 56,394:

Population (District)		Male (%) 28,950	Female (%) 27,444
Total	56,394	51.3	48.7
<19 years	30,452	52.0	48.0
19-59 years	23,686	51.6	48.4
>65 years	2,256	51.7	48.3
Citizen households	22,564		

The most populous community is Daru, having 14,373 inhabitants in 2012. There are limited demographic data available for the 14 Treaty villages. Based on data contained in a traditional fisheries study completed by Busilacchi et al. (2014) and information included in the District Development plan, the population and number of households among the Treaty villages is extrapolated as follows for the year 2012:

Village	Number of Households* 2012	Population* 2012
Daru	1,889	14,373
Sui	64	449
Parama	64	485

Village	Number of Households* 2012	Population* 2012
Katatai	65	409
Kadawa	81	625
Ture Ture	62	359
Old Mawatta	35	218
Mabudauan	157	1,078
Sigabaduru	67	516
Buzi	51	316
Ber	24	139
Tais	36	207
Mari	39	205
Jarai	25	119
Bula	21	116
Total	2,680	19,611
*Based upon information contained in the South Fly 2013-2017 Development Plan and extrapolated from data in the 2014 CSIRO study (Busilacchi et al., 2014) on traditional fisheries in the communities of the Treaty villages.		

Economy and Livelihoods - Fisheries

Nearly all households in the coastal Treaty villages are involved in fishing activities. There is no agriculture pressure, land potential is low, access to services is moderate and cash incomes are low.

Fish is a major source of animal dietary protein in Papua New Guinea, with subsistence fishing accounting for approximately 64% of total fish consumption in rural areas. Fisheries are also an important livelihood source for coastal communities. In the South Fly District, most revenue collected from fisheries is through export of lobster tail, prawn, and dried products that are distributed out of Daru. Historically, bêche-de-mer has been a key commercial fishery for artisanal fishers. However, there was a nation-wide bêche-de-mer closure since 2009; although a review and possible re-opening of the fishery is earmarked in 2016.

Development of inland fisheries, including for the barramundi fishery, is one of the cornerstones of the provincial socio-economic plans, offering food security and income-earning opportunities. Fisheries cooperatives have been promoted as a mechanism for facilitating increased participation by local residents.

Notably, there is also a sports fishing industry in parts of the district, particularly the inland barramundi fishery in the rivers and lakes within the Tonda Wildlife management area. The communities comprising the Treaty villages have limited participation in this sports fishing industry, e.g., as tourism operators/guides.

Key Marine and Coastal Habitats

The Tonda wildlife Management Area, with 590,000 hectares under enhanced protection, is located in the southwestern corner of the South Fly District and designated as a wetland of international importance and the largest protected area in the country.

Disasters and Climate Change Vulnerability

Due to the low-lying topography of the southern reaches of the district, the South Fly area is vulnerable to fluctuations in sea level. According to the 2013-2017 District Development Plan, climate-influenced health impacts could increase in the future as a result of changes in temperature and weather patterns. For example, malaria remains a challenge in Papua New Guinea, as evidenced by a widespread outbreak in 2009.

More intensive storms are also expected to increase the risk of pollution from mining waste runoff. Following flooding rains in May-June 2012, coastal villages along the Fly River were inundated, and coastal fish resources were deemed unsafe for several months due to possible heavy metal contamination.

Relevant Stakeholders

Governmental and Traditional Stakeholders:

- National Fisheries Authority (NFA)
- Conservation and Environmental Protection Authority (CEPA)
- Western Province Administration
- Local Level Governments (LLGs)
- Ward Development Committees
- Traditional Systems

Non-Governmental Organizations:

- Bata Coastal Fisheries Development (Bata CFD)

Private Sector:

- OK Tedi Development Foundation
- Fishing Industry Association

International and Multilateral Partners:

- United Nations Development Programme
- Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Gender Issues and Women's Participation in Coastal Management

Available gender information for the South Fly District is limited. Studies in other parts of Papua New Guinea have found, for example, that female fishers account for 20-50% of the annual catch (Kinch, 2013). For South Fly, based on personal communication with NFA officials, this percentage is essentially 50% among the artisanal fishers in the Treaty Villages.

While women are actively involved in harvesting, processing, and marketing marine resources, they are poorly represented at the management and planning levels.

Summary of Key Socio-Economic Challenges for the South Fly District

Poverty in the district is widespread, largely due to the sparse and remoteness of the localities, restricting income opportunities.

There is also a lack of skills training and there are limited agricultural and fishery support services for local farmers and artisanal fishers.

The influx of workers for the OK Tedi mining operations has also strained the already limited social services, and has resulted in increased pressure on coastal resources.

The capacity of the fisheries staff at the provincial level is low.

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Proposed Intervention No. 21				
EAFM: Rights based management, improved fishing gear/techniques				
1. Thematic Area	Rights based management for sustainable use of ecosystem goods and services.			
2. ATSEA2 Outcome	The activity is designed under Project Outcome 2.1, “ <i>Improved management of fisheries and other coastal resources for livelihoods, nutrition and ecosystem health in Indonesia, Timor-Leste, and Papua New Guinea</i> ”, specifically as part of Output 2.1.1, “ <i>Ecosystem approach to fisheries management (EAFM) implemented at the LME level for shared stocks and in area-specific fisheries</i> ”.			
3. Target Communities and Site Description	Country: Papua New Guinea	Province: Western	District: South Fly	
	Area of Coverage:	139,000 ha		
	The direct beneficiaries are estimated to be 2 people per household (husband-wife) among the 14 Treaty Villages and Daru. Indirect beneficiaries are assumed to be the total population of South Fly District. The data indicated below are from available and extrapolated 2012 figures.			
	Beneficiaries	Women	Men	Total
	Approximate number of direct beneficiaries:	2,680	2,680	5,360
Approximate number of indirect beneficiaries:	27,444	28,950	56,394	
4. Baseline	The NFA has a database on monitoring, control, surveillance (MCS) that has been in existence since 2001. Data sets are incomplete, however. Baseline figures will need to be determined during project inception.			
5. Intervention Description	<p>The legislative framework and organic law in Papua New Guinea regarding fisheries management provide the opportunity for rights based management at the community level. The NFA has in recent years been actively exploring opportunities for decentralizing management functions to local-level stakeholders.</p> <p>The proposed intervention is designed to demonstrate rights based management approaches for the management of South Fly artisanal fisheries, with an emphasis on strengthening the capacities of local-level stakeholders in fisheries governance.</p>			
6. Rationale (Problem Identification)	There have been considerable challenges in PNG in managing fisheries at the local level. With increasing integration into the regional economy, there are increasing incentives for artisanal fishers to harvest high-value species, such as the bêche-de-mer. Consistent exceedance of total allowable catches (TACs) led to a nation-wide closure of the bêche-de-mer fishery in 2009. The NFA is currently assessing whether to re-open the bêche-de-mer fishery, devolving management responsibility to local level government administrations. The limited capacity of local level stakeholders in fisheries governance diminishes the likelihood that such decentralization will be sustainable.			
7. Target Beneficiaries	The targeted beneficiaries are the local communities of the 14 Treaty villages and Daru. In these coastal areas, essentially every household obtains a significant proportion of their livelihoods from harvesting fish and other marine resources.			
8. Expected Benefits	<p>Under the EAFM framework and according to the South Fly artisanal fisheries management plan, implementation of rights based management of select coastal fisheries is expected to strengthen the local level stakeholders in fisheries governance, providing them with more management authority of the coastal and marine resources that they are reliant on for their livelihoods.</p> <p>The expected benefits to the local communities include:</p> <p><u>Human Capital</u>: through training and awareness-raising activities, the capacity of local level stakeholders to more sustainably use coastal and marine resources will be strengthened.</p> <p><u>Nature Capital</u>: the productivity and sustainability of fish and other marine resources will be enhanced.</p> <p><u>Financial Capital</u>: training and awareness-raising activities, e.g., information pertaining to sustainable harvesting of certain species, could result in less fluctuations in household income flows. A longer term financial capital benefit could be alternative income sources, e.g., local fishers working as tourism guides – similar to existing arrangements in the Bensbach region in Western Province.</p>			

Proposed Intervention No. 21		
EAFM: Rights based management, improved fishing gear/techniques		
	<p><u>Physical Capital</u>: funded from non-GEF sources, e.g., through collaboration with NFA and possibly other partners, local fishers might also benefit from improved fishing gear.</p> <p><u>Social Capital</u>: implementation of rights based management principles are expected to strengthen fisheries governance capacity of local level stakeholders.</p>	
9. Proposed Implementation Arrangements	The intervention could be facilitated by a local NGO, working in close collaboration with the NFA, Provincial and District Fisheries officials, local government administrations, and traditional community structures.	
10. Proposed specific activities	The specific activities will be worked out as part of the development of the South Fly artisanal fisheries management plan. Working with local level stakeholders, community management rules will be formulated based upon the management plan objectives, and these will be implemented on a pilot scale within the 14 Treaty villages and Daru.	
11. Activity Outputs	<p>Activity outputs include:</p> <ul style="list-style-type: none"> • Community management rules; • Awareness materials adapted to the context of the local communities; • Fisher obligations supported by traditional systems; • Compliance monitoring reports. 	
12. Indicators	Indicator:	End of Project Target:
	Improved use of fish gear/techniques (improved level of fisheries compliance):	25% improvement over baseline
	Baseline figures will need to be determined during the project inception phase.	
13. Monitoring and Evaluation Criteria	<p>Progress toward achieving the indicator of improved use of fishing gear/techniques will be assessed using existing compliance monitoring systems.</p> <p>The level of awareness and the success of the outreach efforts should also be monitored.</p>	
14. Risk Factors	<p>The lack of fisheries governance skills among local level governmental stakeholders is a barrier to rights based management approaches – limiting the potential success of devolving management authority.</p> <p>Artisanal fishers tend to be conservative, and there is a risk that they will revert to tried and familiar methods.</p> <p>Due to the limited resources available to Local Government administrations, there is a risk that the Provincial and District Fisheries officials are unable to sustain monitoring, control, and surveillance support to the local communities.</p>	
15. Risk Mitigation	Training of trainers in EAFM techniques will capacitate “change agents”, who will able to sustain the capacity building and awareness-raising efforts following project closure. Synergies with traditional systems, e.g., with respect to anti-corruption mechanisms, will also be important.	
16. Links with Other Initiatives	<p>The closest linkages are with the provincial fisheries development activities sponsored by the NFA. Starting in 2013, the NFA has allocated funds to the coastal provinces, including Western Province, in order to promote development and improved management of coastal and inland fisheries.</p> <p>The NFA is also working in collaboration with regional and international partners on artisanal fisheries issues in the South Fly District; including CSIRO.</p>	
17. Approximate Cost	USD 50,000	

Proposed Intervention No. 22					
IUU: Community based monitoring, control, surveillance					
1. Thematic Area	Improving monitoring, control, and surveillance of IUU fishing for sustainable use of ecosystem goods and services.				
2. ATSEA2 Outcome	The activity is designed under Project Outcome 2.1, “ <i>Improved management of fisheries and other coastal resources for livelihoods, nutrition and ecosystem health in Indonesia, Timor-Leste, and Papua New Guinea</i> ”, specifically as part of Output 2.1.3, “ <i>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 further reduction of IUU fishing in the ATS by 10%, around 150,000 tons</i> ”.				
3. Target Communities and Site Description	Country: Papua New Guinea	Province: Western	District: South Fly		
	Area of Coverage:	139,000 ha			
	The direct beneficiaries are estimated to be 2 people per household (husband-wife) among the 14 Treaty Villages and Daru. Indirect beneficiaries are assumed to be total population of South Fly District. The beneficiaries are the same as for the previous intervention outlined above. The data indicated below are from available and extrapolated 2012 figures.				
	Beneficiaries		Women	Men	Total
	Approximate number of direct beneficiaries:		2,680	2,680	5,360
Approximate number of indirect beneficiaries:		27,444	28,950	56,394	
4. Baseline	Export data from Western Province (Daru port) provided by the NFA:				
	Year	Product	Quantity (kg)	Value (USD)	Value (PGK)
	2009	Fish (maw)	152	3,490	10,202
	2010	Fish (maw)	218	47,110	47,110
	2011	Fish (maw)	1,963	467,100	918,404
5. Intervention Description	<p>The intervention will be designed to increase the awareness of local artisanal fishers with respect to sustainable use of ecosystem goods and services in their communities, through active participation in monitoring, control, and surveillance (MCS).</p> <p>The MCS activities will be related to specific management objectives outlined in the South Fly artisanal fisheries management plan, which will be developed with support from the project.</p> <p>The participatory MCS process should include groups other than fishing interested parties, e.g., environmental groups, with the aim of resolving potential conflicts.</p>				
6. Rationale (Problem Identification)	The problem is unsustainable and illegal harvesting of fish and marine resources, jeopardizing the source of livelihood for the coastal communities.				
7. Target Beneficiaries	The targeted beneficiaries are the local communities of the 14 Treaty villages and Daru. In these coastal areas, essentially every household obtains a significant proportion of their livelihoods from harvesting fish and other marine resources.				
8. Expected Benefits	The prime function of MCS is to increase compliance to agreed management measures by increasing deterrence and voluntary compliance and thus decreasing violations.				
	<p>The expected benefits to the local communities include:</p> <p><u>Human Capital</u>: through training and awareness-raising activities, the capacity of local level stakeholders to more sustainable use coastal and marine resources will be strengthened.</p> <p><u>Nature Capital</u>: the productivity and sustainability of fish and other marine resources will be enhanced.</p> <p><u>Financial Capital</u>: training and awareness-raising activities, e.g., information pertaining to sustainable harvesting of certain species, could result in less fluctuations in household income flows. A longer term financial capital benefit could be alternative income sources, e.g., local fishers working as tourism guides – similar to existing arrangements in place in the Bensbach region of Western Province.</p> <p><u>Social Capital</u>: community MCS activities are expected to increase the level of</p>				

Proposed Intervention No. 22		
IUU: Community based monitoring, control, surveillance		
	collaboration among local residents, strengthening social support systems.	
9. Proposed Implementation Arrangements	The intervention could be facilitated by a local NGO, working in close collaboration with the NFA, Provincial and District Fisheries officials, local government administrations, and traditional community structures.	
10. Proposed specific activities	A possible strategy, focusing first on short-term measures, could include data collection and encouraging voluntary compliance through community self-monitoring and fisher obligation, developed through an awareness-campaign.	
11. Activity Outputs	Activity outputs include: <ul style="list-style-type: none"> • Awareness materials adapted to the context of the local communities; • Community self-monitoring protocols; • Fisher obligations supported by traditional systems. 	
12. Indicators	Indicator:	End of Project Target:
	Reduced Fishing Pressure:	1 ton per year reduction per year of dried fish maw by end of project
	Fish maw (bladder) is selected preliminarily as the indicator species/product. The NFA has some data on fish maw, shark fin, trochus, prawns, lobster, bêche de mer (up to 2010 only), reef fish, crabs, and squid. But, the baseline figure will be updated during project inception, using more updated information, if available.	
13. Monitoring and Evaluation Criteria	Progress toward achieving the indicator of reduced fishing pressure will be measured through evaluation of available data, e.g., export data collected at the Daru port. The level of awareness and the success of the outreach efforts should also be monitored.	
14. Risk Factors	Artisanal fishers tend to be conservative, and there is a risk that they will revert to tried and familiar methods. Due to the limited resources available to Local Government administrations, there is a risk that the Provincial and District Fisheries officials are unable to sustain MCS support to the local communities. There is also a potential for corruption associated with the MCS activities.	
15. Risk Mitigation	Close collaboration with Local Government administrations will be critical, ensuring that the intervention is not a one-off activity. Synergies with traditional systems, e.g., with respect to anti-corruption mechanisms will also be important.	
16. Links with Other Initiatives	The closest linkages are with the provincial fisheries development activities sponsored by the NFA. Starting in 2013, the NFA has allocated funds to the coastal provinces, including Western Province, in order to promote development and improved management of coastal and inland fisheries. The NFA is also working in collaboration with regional and international partners on artisanal fisheries issues in the South Fly District; including CSIRO.	
17. Approximate Cost	USD 50,000	

Annex B

ATS Marine Protected Area Coverage and Proposed Expansion in Indonesia and Timor-Leste

PROTECTED AREA COVERAGE AND STATUS

While considerable progress has been made in the Coral Triangle in countries like the Philippines, Malaysia, and Indonesia in developing marine protected areas (MPAs), there are few MPAs in the ATS region, apart from in Australia.

In Indonesia, there is one existing MPA, the Southeast Aru Marine Nature Reserve. This national level Nature Reserve was declared through Ministerial decree (MenKP No. 63/Men/2009) dated 3 Sept 2009, covers an area of 114,000 ha, and is designated as a IUCN Category IV area. While a management plan is in place, management effectiveness requires improvement.

A district level MPA is under designation in Kolepon Island (also known as Kimaan and Dolok), which is one of the six outer islands in the Province of Papua, located in the southern part of the island of Papua, to the north of Merauke. While turbid water conditions due to high sedimentation processes mean there are no seagrass and coral reef ecosystems, it has a rich diversity of mangroves, swamps, and mixed forests that provide core habitat for a number of migratory birds, saltwater and freshwater crocodiles and several kinds of freshwater turtles. It is also a key nursery area for fish and prawns and marine turtles are found migrating through adjacent waters. Some of the key threats to the marine biota include overfishing, unfriendly fishing gear, and destruction of mangroves and sand mining. The ATSEA-2 project will support the Government of Indonesia in upgrading this MPA to a national level.

In Timor-Leste, there is one established MPA in the ATS region, the Nino Konis Santana (NKS) national park, covering 55,660 ha of marine habitat. The NKS national park was declared by the Ministry of Agriculture, Forestry and Fisheries (MAFF) in 2007. It is an IUCN Category V protected area, reflecting the area's significant natural and cultural values, its importance for local livelihoods, as well as the human influence on the area's landscape. The marine component of the NKS Natural Park contains both, southern and northern coastlines, encompassing the major coastal and marine habitats and reef types within the eastern region of the country and comprises almost 15% of Timor-Leste's total coastline. In 2013, seven communities established no-take zones within the NKS were officially recognized by the Government. The seven 'No Take Zones' are embedded within broader multiple-use marine protected areas, covering 207 square kilometers of coastal waters of NKS. There are also 5 Locally Managed Marine Protected Areas (LMMAs) – one in Com, three in Tutula, one in Lore. The coastal waters surrounding Timor-Leste contains the second-highest average of reef fish species per site for any region on Earth to date (Erdmann and Mohan 2013). No mapping of the south coast has been undertaken to date for NKS. There is no management plan in place for the NKS national park – something the ATSEA-2 project will help facilitate, as well as further facilitate collaborative management among the local communities there.

A new MPA is proposed on the south coast of Timor Leste, roughly from Betano to Clacuc (Klakuk). This area has been identified as an area of interest to being included in the MPA Network being established in the Lesser Sunda Ecoregion which encompasses the chain of islands and surrounding waters from Bali, Indonesia to Timor-Leste and is one of the 11 ecoregions of the Coral Triangle. There is no baseline information available to provide an overview of the values associated with the proposed MPA between Betano and Clacue. This will need to be collected during implementation phase of ATSEA 2.

Southeast part of Kepulauan Aru Marine Nature Reserve (*Suaka Alam Perairan/SAP Aru Bagian Tenggara*), Indonesia

OVERVIEW: (Conservation priorities)

The MNR has been established for almost 25 years, initially declared in 1991 under the Minister of Forestry decree No. 72 / Kpts - II / 1991. In 2009, the status of the MNR was handed over to the MMAF under the No. KEP. 63 / MEN / 2009.

The Southeast Aru MNR is 114,00 hectares in area and comprises of seven (7) islands; Karang (Coral), Jeh, Enu, Mar, Jerdin, Marijinjin and Kultubai Selatan. These islands are remote, susceptible to natural disaster, highly dependent on natural resources, infrastructure limits and have limited access to public services. The islands within the MNR have small populations or are un-inhabited.

The islands are dominated by open water zone, mangrove ecosystems, coral reefs and seagrass ecosystems. The MCA supports a diverse range of large marine biota including whales, turtles, dugongs, crocodiles and dolphins. The sandy beaches within the conservation area are known to provide breeding habitat and breeding locations for green sea turtles (*Chelonia mydas*) and Hawksbill sea turtles (*Ereimochelys imbricata*).

To properly manage the MNR requires better coordination of management efforts and the involvement of all stakeholders including recreational fishermen, commercial fishermen, traders and the indigenous community. There is opportunity for members of the local community could also be trained as MNR rangers and offer an alternative income for local households.

BIOPHYSICAL CONSIDERATIONS (habitats, proposed/existing size, connectivity)

The South-East Aru MNR supports a high level of biodiversity of both flora and fauna including terrestrial and marine species such as whales (6-7 species), turtles (4 species), dugongs (*Dugong dugong*), crocodiles (*Crocodylus porosus*) and dolphins (5 species). The MCA supports a number of different ecosystems including mangrove, seagrass and coral communities.

Seagrass comprises of 6.43% of the ecosystems within the MCA and is found within around all 7 islands. The waters surrounding Jeh Island have high seagrass coverage of around 71.25%. Seagrass provides foraging and breeding habitat for a variety of marine fauna including turtles and dugongs. The MCA provides habitat for endangered turtle species such as green sea turtles (*Chelonia mydas*) and Hawksbill sea turtles (*Ereimochelys imbricata*). These species utilise the seagrass beds, dry beach habitat and reef habitat for nesting and feeding, particularly on and around Karang (Coral) and Enu Island.

Coral reefs are also present in 2.54% of the MCA and are present around all the seven (7) encompassing islands. Coral reefs are generally in very good condition with a coral cover of approximately 84% in some areas. The dominant species of coral in *Acropora sp.* but other species also include *Montipora sp.*, *Lobophyllia sp.* and

Goniastrea sp. Coral reefs play an important role in protecting the islands from natural disasters, as they are able to diminish or break the power of the waves before they hit the small, low-lying islands. This is essential to reduce risks of flooding, erosion and property damage. The coral systems also act as nurseries for fish and various marine biota that rely on these reefs for shelter and food.

Mangroves comprise of 1.69% of the MCA and are a key habitat feature found in the Aru Islands. Mangrove species include *Rhizophora sp.* and *Bruguiera sp.* Mangroves, much like coral reefs, are very important for protecting the shoreline of the Aru Islands from natural disasters such as hurricanes, storms and flooding. The mangroves also assist to stabilise the beach substrate and sediments and prevent shoreline erosion. From a biodiversity perspective, mangroves act as nursery areas for crustaceans, fishes and mollusks, and play a crucial role supporting the ecological functioning of the region.

SOCIAL CONSIDERATIONS

There are two villages that live in the MCA area, Karey Village in the southeast Aru District, and East Side Village in the Afara District located in south-central Aru. Karey Village claims tenure over Enu Island, Coral Island, Jeh Island and Mar Island, and East Side village claims tenure over Jin and Kultubai Besar.

The Aru Islands is considered one of the largest fishery potentials due to its location within the Aru Sea and

Arafura Sea. The surrounding waters are highly biodiverse with small and large pelagic fish, reef fish, ornamental fish, seaweed, shellfish, turtles, shrimp, lobster, crab, squid and other marine biota. Not surprisingly, the majority of individuals that live in the Aru islands within the coastal communities are fisherman that collect fish, farm seaweed or process fishery products.

Management Issues in the MNR

a. Overharvesting and population exploitation

Overharvesting and hunting activities, particularly hunting turtles and egg catching, have resulted in a decline of threatened species. Despite the prohibition of turtle hunting within the MCA it is still estimated that about 4000 mature turtle are caught every year in Enu Island beach and sold in Bali Island, Surabaya and Ujung Pandang.

b. Monitoring

The remoteness of the SE Aru MNR and minimal surrounding population makes supervision and monitoring of activities within the MNR very difficult. Without supervision and enforcement of regulations, the application of zones within the MCA to promote biodiversity, social and economic conditions is ineffective.

c. Lack of coordination

There is a lack of coordination between different sectors regarding the management of the SE Aru MNR. In order to protect and effectively manage the MNR, government agencies at national level and province level must work together and communicate with other stakeholders including recreational fishermen, commercial fishermen, traders and the local communities. By working with local fishermen, there is a higher chance that regulations will be upheld.

d. Education (I think education is not a management issues. But lack of awareness (low buy in) from the local communities is the issue)

e. Indigenous community

There is a clear need for Government agencies to incorporate indigenous knowledge and Sasi into the management of the MNR. By understanding the local cultural tenure of both the land and the sea, it could help in managing and enforcing the MNR. For instance, the village of Longgar and Apari believe that the islands of Jeh, Mar, Jeudin and Marijinjin belong to them and Kurtubal Selatan Island belongs to the Bemun village. Trespassing by other villagers is considered a breach of property rights and fishing in an area that you don't have access to has caused fights between neighbouring villages (Dangeubun 2013). By working together with the villages and understanding the local tenure, local and government authorities may be more successful in creating community monitoring programs and improving overall compliance with MCA regulations.

In addition to local tenure, the indigenous community also has specific methods for resource management called *Sasi*. This dictates the time of fishing, tools and the size required for fishing. *Sasi* is often applied for fishing for pearl oyster, sea cucumber and mollusk. Individuals that fail to follow the traditions are thought to be haunted or kidnapped by their ancestors. It is important that government agencies understand these religious beliefs when implementing management actions.

f. Sustainable Funding

The main funding for managing this MNR is coming from the central government. There is no clear road map to mobilize external resource for fund the MNR management. There is a need to provide clear plan for mobilizing external funding that can be sourced from different stakeholders.

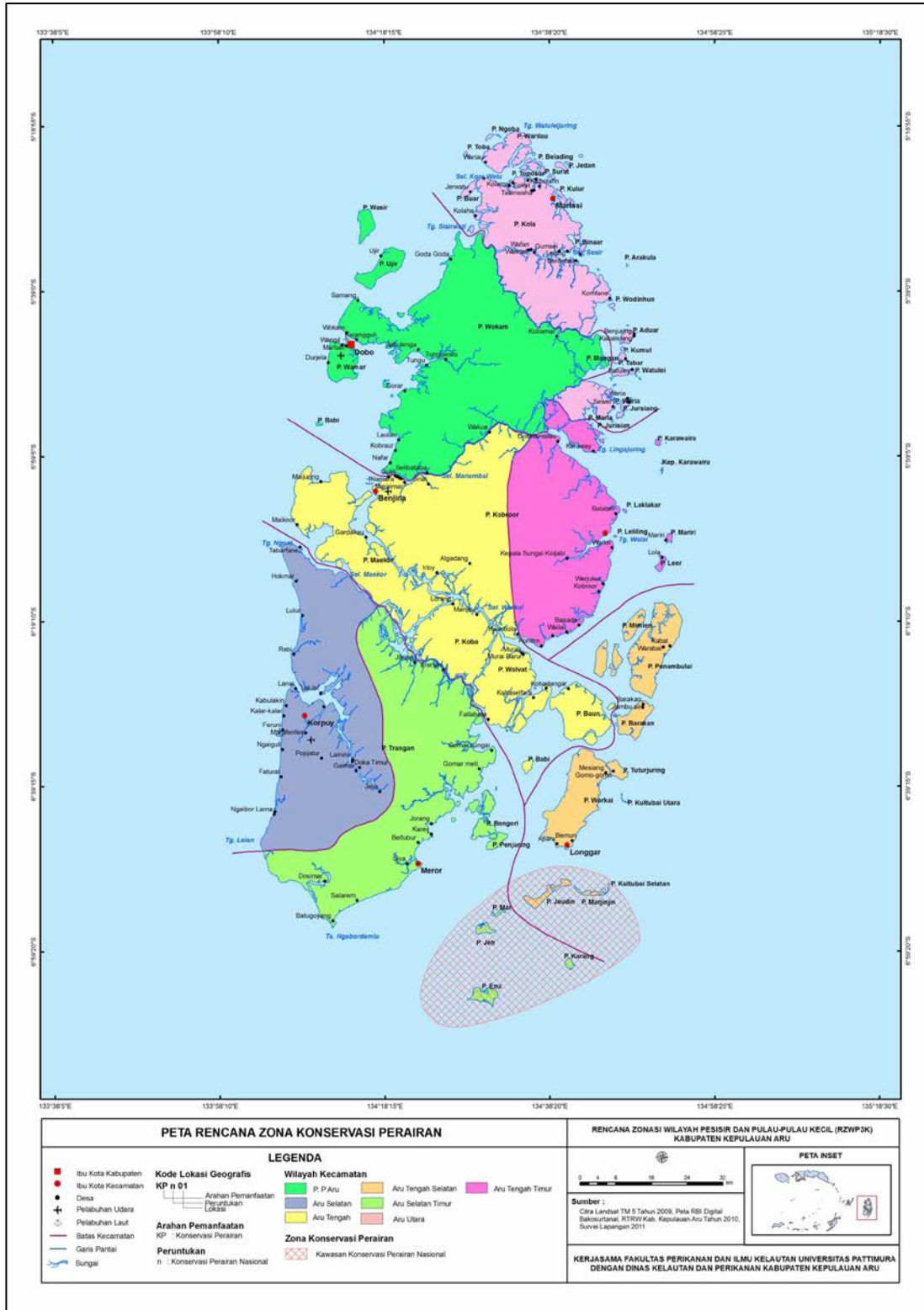
LEGAL/ INSTITUTIONAL CONSIDERATIONS

The four broad objectives of the RPZ (Minister decree No 64 Year 2014 on management plan and zoning of SE Aru tenggara MNR) are:

1. Implementation of programs and activities;
2. Protection and preservation of the region;
3. Area utilization in accordance with zoning; and
4. Evaluate the effectiveness of park management.

In SE Aru MNR the location of the zones have been chosen based on ecological functions, use patterns and social economic conditions. The area (in hectares) and respective percentages of each of these zones are listed below:

- Core Zone (2378.01 ha or 2.08%),
- Sustainable Fishing Zone (96771.01 ha or 84.88%)
- Use Zone (10420.01 ha or 9.14%),
- Rehabilitation Zone (1949.7 ha or 1.71%)



Location of South-east Aru MCA (Red hash)

KOLEPON ISLAND (KIMAAN/DOLAK) – Proposed MPA for Indonesia

OVERVIEW: (Conservation priorities)

Kolepon Island (also known as Kimaan or Dolak) is one of the six outer islands in the Province of Papua, located in the southern part of the island of Papua, to the west of Merauke District. Kolepon Island is included within the Kimaan district and is bound by the Aru Sea to the north, Komolon Island and the Arafura Sea to the South and Okaba District in the east.

The island has an area of approximately 11,620 km² with a rich diversity of mangroves, swamps and mixed forest which provide core habitat for a number of migratory birds, saltwater and freshwater crocodiles and several kinds of freshwater turtles. The island is subjected to two major seasons, wet and dry. The dry seasons lasts for 2-3 months and 5-6 months for the wet seas where the island can receive between 3,000 – 4000 mm of rainfall per year.

The population on Kolepon based on data collected on the Kimaan District in 2013 is 17,112 comprised of 8,790 men and 8,322 women. The island can be accessed via air and sea transportation. The infrastructure and available public facilities on the island are also quite good with roads, concrete piers, an airfield, junior high schools, health centers and village electricity. However, improvements to transport, telecommunications, education, housing, health and clean water services are still imperative.

As with many coastal communities, inhabitants rely on a subsistence economy relying on available marine resources. The area has been identified by the Merauke District as an important strategic marine area and is proposing a marine protected area, with surveys completed. This area has also been identified by the Central Government as a National Marine Strategic Area and is proposing to extend the district MPA to 12 nautical miles to make it a national MPA, with the intention to develop fisheries, including mangrove crabs, arwana fish and other freshwater fisheries, and the agricultural sector.

BIOPHYSICAL CONSIDERATIONS (habitats, proposed/existing size, connectivity)

Kolepon Island is surrounded by very shallow water with the depth rarely exceeding 1 metre as far as 1 kilometre to the south and west of the mainland. The coastal waters are primarily dominated by tidal currents, which can fluctuate by up to 9 metres. These waters are often highly turbid due to the number of streams that flow into the western coast of mainland Papua, thereby creating a sedimentation zone. Furthermore, the large river channel connecting to the Arafura Sea to the east of the island also contributes to the sediment load through the process of erosion.

While turbid water conditions due to high sedimentation process mean there are no seagrass and coral reef ecosystems, it has a rich diversity of mangroves, swamps, and mixed forests. The shape of the island has also led to two-thirds of the island being dominated by marsh habitat, with dry land only found on the outskirts of the island. A number of crops also grow on the island including coconuts, bananas, mangoes, tubers, cassava, cashew, durian and rambutan.

The extensive marsh ecosystems provide core habitat for a number of migratory birds such as parrots, pelicans and several kinds of turtles, including red chest and white chest swamp turtles. Three types of crocodiles can also be found here including freshwater or crocodiles, swamp crocodiles and saltwater crocodiles. It is also a key nursery area for fish and prawns and marine turtles are found migrating through adjacent waters.

SOCIAL CONSIDERATIONS

The island supports several indigenous communities totaling 16,200 people. Kolepon can be accessed by a 45-minute plane trip that leaves once a week or a 15-hour boat ride. Access to clean water on the island is limited as many wells are not considered suitable for human consumption and community hygiene is poor.

The island only has one primary school and one junior high school. Many children do not complete junior high school in order to help the family financially, resulting in a large portion of the community that cannot read or write.

There is a high level of community dependence on marine resources for food security and livelihoods. Fishing is the main occupation for most of the year, with farming providing supplementary food in the monsoon season. Fishing starts in April – September with peaks in fish populations between May – July.

Fish populations begin to decline in October – December, where fisherman switch to using fishing gear and in January- March when monsoon winds prevent fishing, fisherman will generally commence other works such as hunting, farming or gardening.

The two main fisheries are for mangrove crab and arwana fish. Arwana fish spawn between October – January. There is a local wisdom or general community knowledge to only take fish of medium size. Commercial fishers (non-indigenous) are required to have the consent of traditional owners to fish in waters adjacent to Kolepon.

With regards to catching crocodiles, there is a local wisdom or community knowledge to only catch individuals between 1 – 2 years old, following the death of one of the community leaders.

LEGAL/ INSTITUTIONAL CONSIDERATIONS

In fulfilling the objectives of sustainably utilising natural resources, the Kolepon Island has been included as a National Marine Strategic Area Based on Act No 1 year 2014 the National Marine Strategic Area (Kawasan Nasional Strategis Tertentu) is the area that related to state sovereignty, environmental control, and / or world heritage sites, whose development priority for the national interest. The Central government of Indonesia plans to fund preliminary studies out to 12 n.m. limit as an early effort for gathering important information for establishing a new Marine Protected Area at Kolepon island.

Zoning Plan

The preliminary survey being undertaken by the District Government, along with the proposed extended survey by the Central Government under ATSEA 2 will identify the protected areas of highest importance and assess the feasibility of the program through surveying. The results will then be used to develop a Zoning Plan that will determine the direction of natural resource use and outline permissible and prohibited activities in each zone. The plan will be comprehensive and integrate with the existing national spatial plan.

Specifically the plan will identify and address:

Resource potential;

- Existing conditions and space utilization;
- Characteristics of the coast
- Threats/vulnerabilities and the carrying capacity of the ecosystem of the island;
- Production centers, marine fisheries and other activities;
- Facilities and infrastructure; and
- Social and Cultural aspects of the local economy.

The preparation of a detailed zoning plan will also incorporate community development and capacity building to empower the community in a 'bottom-up' approach. In order to properly assist, manage and monitor management actions, improved infrastructure is necessary.

All information sourced from PT Tulada Konsula during the Progress Report presentation at KKJI, in November 2015.

Sub-district:	Kimaam	Tabonji	Waan
Location	137°40' - 139°10'E 7°15 - 08°40 S	7°40' - 7°97'S 138°19' - 138°819' E	7°9 - 8°42' S 137°30' - 138°08'E
Area (km ²)			
• Land	4630.30	2,868.06	5,416.84
• Sea	769.88	666.99	1,383.74
Status	Wildlife Reserve RI Forestry ministerial decree number: 305/ kpts - 11/998, 27 Feb 1998. Area of 664.627, 97 ha		
Number of villages	11	9	8
Populations 2013	7019	5376	4717
Distance to Merauke (mil)	145	148	140
Access	Sea and air	Sea	Sea
Education facilities			
• Senior High School	2	-	-
• Junior High School	1	1	1
• Elementary School	8	6	8
(Teacher shortage)			
Health services			
• MBL Ambulance	Yes	No	No
• Primary health care	1	1	1
• Health care nurses?	6	6	8
• Integrated post service conducted by nurses - in halls, community centers	11	-	-
Worship facilities			
• Mosque	1	-	-
• Church	8	8	9
Transport between villages	2WD and 4WD transportation between villages by road and river. Tarmac	2WD and 4WD transportation between villages by road and river	2WD transport between villages by land, sea and river
Airport	Yes	No	No
Port	Yes	Yes	Yes
Office complex			
• District Office	Yes	Yes	Yes (Broken)
• Police Station	Yes	Yes	No
• Indonesian Army	Yes	No	No
• State Electricity Company (jam 18:00 - 24:00)	Yes	Yes	Yes (Broken)
• Bank Papua	Yes	No	No
• Local Government Water Company	Yes	No	No
• Post Office	No	No	No
Telecommunication			
• Telecommunications Cellular Company	Yes	Yes	Yes
• Single Side Band	Yes	Yes	Yes

NINO KONIS SANTANA MARINE PROTECTED AREA, TIMOR LESTE

OVERVIEW: (Conservation priorities)

Timor Leste is located in the Lesser Sunda Islands of the Indonesian archipelago, on the eastern part of the Timor Island. Timor Leste also includes the Oecussi (Ambeno) region on the northwest portion of the island of Timor and two islands, Atauro and Jaco. Collectively, Timor Leste is approximately 15,007 km² with a coastline of 700km and a population of over 1.2 million. The country is comprised of 13 districts and a central national government.

In 2007, the Ministry of Agriculture, Forestry and Fisheries (MAFF) declared the first national park - Nino Konis Santana National Park (NKSNP) in the Lautem district. NKSNP is still the largest area of terrestrial, coastal and marine habitat currently protected in Timor Leste with a total area of 123,600 ha, comprised of 68,000 ha of terrestrial habitat and 55,600 ha of marine habitat. The NKSNP encompasses well-developed tropical closed forest, areas of high natural and cultural heritage and globally significant tropical marine biodiversity.

The NKS NP is located entirely within Lautem District and includes six villages: suco of Tutuala, Mehara, Muapiting, Lore, Bauro, and Com (and their associated hamlets) with a combined population of approximately 10,000 people. Overall, there is a lack of information on the socio-demographics, status and livelihoods of the communities that live within the NKSNP. Although it is known that the surrounding ecosystems and processes they provide support the economic and health needs of the Timorese people.

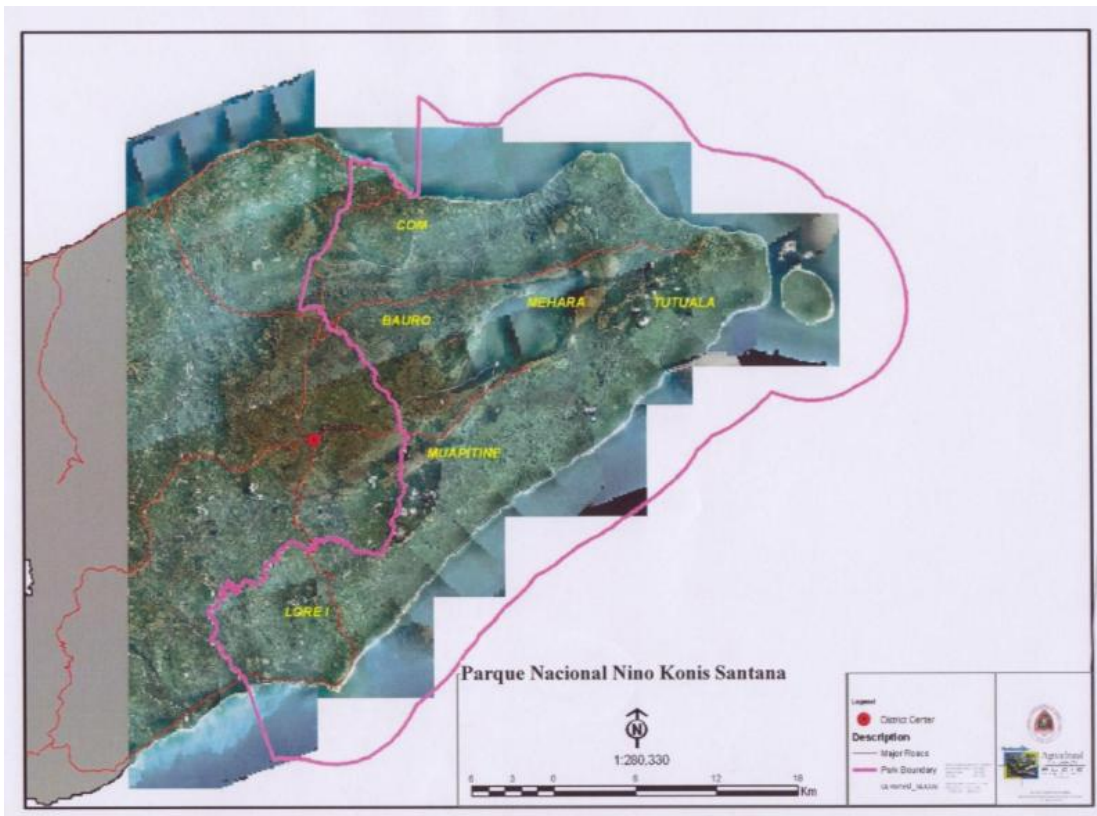
NKSNP was established as an IUCN Category V Protected Area, meaning that people continue to live within, rely on, and actively use the resources of the Park. An ongoing challenge is for the management of NKSNP is the current lack of zoning. Multiple-use zoning is required to establish the 'rules' within this space, to afford the best possible protection for the natural environment without undermining the needs of the people who live there. These 'rules' can then inform how the park is managed.

Unfortunately, there are a number of factors threatening future marine stocks including deforestation of mangroves, high risk of natural disaster, waste disposal in river systems, destructive fishing practices and population growth. However by implementing better management, addressing inefficient zoning and improving legal instruments it is believed that many of these threats can be reduced or removed.

BIOPHYSICAL CONSIDERATIONS (habitats, proposed/existing size, connectivity)

The Nino Konis Santana National Park is important in protecting highly significant terrestrial and marine species and their respective ecosystems. The terrestrial part of the NKSNP (68,000 ha) protects the largest remaining area of natural forest (mainly montane forest) in Timor Leste and links three national parks namely, the Jaco Island Marine National Park, the Lake Iralalaru National Park, and the vicinity of Com Village.

The marine protected areas of NKSNP (55,600 ha) are located on the easternmost tip of Timor Leste and includes the coastline of the Lautem district and Jaco Island (Figure 1). The NKSNP is located within the Coral Triangle, the epicenter of global marine biodiversity with supports more than 3,000 reef fish species, whale sharks, manta rays, dolphins and a diversity of other marine species. The Coral Triangle actually comprises almost 15% of Timor Leste's coastline and is extremely important for the sustainability of marine resources for the country.



Location of NKS National Park and Marine Park (Edyvane et al 2012¹)

Topography

The northern coast of the NKSMP is characterised by rocky headlands, steep coastal cliffs along most of the shoreline and very narrow coastal plains. Due to this topography the sheltered waters on the north coast are calmer than those on the south coast, interspersed with pocket beaches and narrow fringing reefs. Various locations of coral reefs, mangroves and seagrass along the coast are depicted in Figure 2.

Fringing reefs (reefs that follow closely to the shoreline) form an almost continuous strip up the coastline representing almost 50% of the inshore habitats. Due to the very steep offshore, coastal gradient there is limited estuaries, mangrove forests, coral reefs or seagrass meadows. In fact the majority of marine habitats within the NKS marine park (>90%) are deep-water habitats (>100m depth), most of which have not been mapped. Only 2% or 990ha of the accessible shallow habitats within the NKSMP have actually been mapped.

Due to the steep topography of the region over 100 rivers flow into the coastal zone, often short and fast flowing. Overall, there are 29 main river systems, 12 located to the north and 17 to the south.

Flora and Fauna Values

Marine

The country's mangroves occupy approximately 750ha and comprise of seven genera: *Avicennia*, *Sonneratia*, *Rhizophora*, *Bruguiera*, *Ceriops*, *Lumnitzera* and *Xylocarpus*. The largest area of mangroves are located in the Metinaro region and play important roles as primary breeding grounds for many fish and shellfish species. The mangrove systems are also important for protect the coastline from erosion and coral reefs from sedimentation.

Seagrass communities can be found in shallow portions of the narrow reef flats along the Timor Leste coastline. Seagrass is critical to protect coral reefs from sedimentation and are feeding grounds for a number of endangered marine species including dugongs, turtles and dolphins.

The pristine marine habitat around Jaco Island is also known to support well-established coral colonies and is considered preferred habitat for a number of large pelagic fish species. The quality of the surrounding marine ecosystems is most likely attributed to the uninhabited nature of the island and the traditional rules that prohibit access to the island.

SOCIAL CONSIDERATIONS

The NKS NP is located entirely within Lautem District and includes six villages: suco of Tutuala, Mehara, Muapiting, Lore, Bauro, and Com (and their associated hamlets) with a combined population of approximately 10,000 people. Within the NKSNP there are a number of significant cultural heritage sites that are considered to be of World Heritage standard including ancient cave paintings, ancient cave and occupation sites and ancestor tombs. The National Park also holds modern historical significance, as a central place for the resistance movement of Timor Leste in their struggle for independence, including hideouts and bases for the resistance fighters.

Overall, there is a lack of information on the socio-demographics, status and livelihoods of the communities that live in the villages and settlements within the NKSNP. Although it is known that the surrounding ecosystems and processes they provide support the economic and health needs of the Timorese people.

Threats to Coastal Marine Resources

Deforestation

Despite best efforts, recent coastal mapping of Timor Leste has revealed significant and ongoing coastal habitat loss, namely coastal mangrove. The main reasons are thought to be habitat loss of trees collected for timber and fuelwood and the conversion of hinterland mangroves for shrimp or fish ponds. The growing demand for fuelwood and a lack of alternatives has reduced the forest cover in Timor Leste by 30% between 1972-1999. Subsistence agriculture is also another source of deforestation for the creation of more arable land.

Population Growth

One of the major challenges that need to be addressed is the high rate of population growth in Timor-Leste with the average fertility rate at 7.8 births per women. Currently the infrastructure that supports the delivery of clean water and sewage disposal is unequipped and inadequate to meet this growth rate. This creates an enormous pressure on the surrounding environment, with waterways being used to dispose of solid waste and garbage, presenting a serious health concern. These human activities also heavily impact the surrounding natural vegetation and the marine, as well as terrestrial species that use these systems.

Subsistence Economy

As with many coastal communities, inhabitants live on a subsistence economy relying on available marine resources. A number of marine resources are exploited in Timor Leste including Lenuk (turtle), which is threatened is overharvested for its eggs, skin and meat and mollusks are collected for local consumption. Non-sustainable fishing methods and destructive fishing activities also impact the overall water quality of rivers and streams. Diminished water quality and sedimentation can threaten the health of coral systems.

Management and Zoning

Underlying the habitat loss is a lack of zoning, weak legal instruments and inadequate management. A number of the declared protected areas in Timor Leste do not have a management plan or the institutional mechanisms to implement effective management. For this reason, it is difficult for these protected areas to achieve that objectives that they were created to fulfill.

The NKSNP is still managed as a multiple-use site meaning that the community can still live within and rely on the marine resources within the marine protected areas. However, rules must be in place to achieve the best biodiversity goals whilst still considering any social and community ramifications. The implementation of No Take Zones within the NKSNP would be more appropriate to protect target marine species and ecosystems, although this must be communicated effectively to the surrounding communities.

Natural Disasters and Climate Change

Timor Leste is highly vulnerable to natural disasters and climate change, being exposed to 91 small to medium disaster events within a 6-month period of 2011. Currently the communities rely heavily on a limited range of natural resources that supply water during the dry months, which is feared to be further diminished given current environmental circumstances and climate change projections. Natural disasters and pressures on the surrounding marine resources pose a real threat to future stocks.

LEGAL/ INSTITUTIONAL CONSIDERATIONS

The Constitution of Timor Leste recognises a fundamental objective of the state is to preserve and rationalise natural resources and promote actions aimed at protecting the environment and safeguarding the sustainable development of the economy.

The Nino Konis Santana National Park (NKSNP) was declared through the Resolusaundo Governo No. 8/2007 Kria & UNTAET 19/2000. These regulations establish and designate protected areas for the purpose of protecting endangered species, wetlands, mangrove areas, historic and cultural site, the conservation of biodiversity and the protection of biological resources through the Prohibition of Logging Operations and the Export of Wood from East Timor, and the Law of Protected Areas. Specifically, the UNTAET 19/2000 called for the creation of the NKSNP and National Forestry Strategy and Policy.

With regard to the co-management between government, stakeholders and the local community there are two Decree Laws that are relevant: Decree Law 5/2004 and Decree Law 6/2004. These Decree Laws mandate that government must involve the community and fishermen groups when designing fishery management plans, describes the role and responsibilities of local councils to protect the environment and achieve food security and that co-management committees should work to improve management and conduct local conservation activities.

Timor-Leste is also currently in the process of developing a Biodiversity Decree Law, which will set out the national policy on:

- (1) biodiversity planning, monitoring, and inventory;
- (2) protection and conservation of ecosystems, habitats and species;
- (3) addressing threats to biological diversity and resources;
- (4) addressing ex-situ conservation and permitting systems for prohibited activities;
- (5) addressing genetic resources, traditional knowledge and access and benefit sharing; and
- (6) addressing biodiversity information management, education and public awareness, training and research, incentives and valuation of biological resources.

Timor-Leste is also working under a NBSAP (National Biodiversity Strategy and Action Plan) for the period 2011-2020. This Plan will act as the country's guiding framework to conserve its biodiversity and serves as safeguard in achieving its development agenda until 2020.

The NKS National Park and Marine Park is co-managed by a community of local resource user workers, government and other stakeholders.

ⁱ Edyvane K, de Carvalho N, Penny S, Fernandes A, de Cunha CB, Amaral AL, Mendes M, Pinto P. (2012). Conservation Values, Issues and Planning in the Nino Konis Santana Marine Park, Timor Leste – Final Report. Project 4 of the Timor Leste Coastal-Marine Habitat Mapping, Tourism and Fisheries Development Project. Ministry of Agriculture & Fisheries, Government of Timor Leste.



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ANNEX C: GENDER AND SOCIAL INCLUSION

Project Design Recommendations for the Implementation of the Arafura and Timor Seas
Regional and National Strategic Action Programs (ATSEA-2)



PHOTO CREDIT: Brianna Hunt Ficcadenti / USAID Adapt Asia-Pacific

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DISCLAIMER

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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ACRONYMS

ATS	Arafura and Timor Seas
CCA	Climate Change Adaptation
GEF	Global Environment Facility
IUU	Illegal, Unreported and Unregulated
M&E	Monitoring and Evaluation
PEMSEA	Partnership in Environmental Management for the Seas of East Asia
PNG	Papua New Guinea
UNDP	United Nations Development Program
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

The warm tropical Arafura and Timor Seas (ATS) are crucial globally, linking the Indian and Pacific Oceans and playing an important role in global ocean circulation. At the regional level, the ecosystems of the ATS play an important economic and ecological role in the bordering littoral nations: Indonesia, Timor-Leste, Australia, and Papua New Guinea. However, the marine resources and ecosystems of the ATS are at risk. Major marine and land-based pollution impacts, as a result of coastal mining activities, poor catchment practices, offshore oil/gas exploration, and the effects of fisheries (e.g., marine debris, discarded fishing nets, etc.), are having negative effects on the marine ecosystem. Climate change is further exacerbating this situation, with predicted changes to the coastal and marine environment that will threaten lives and livelihoods both in the waters and on the coasts.

Building on the success of the Arafura and Timor Seas Ecosystem Approach (ATSEA) Program, which was funded by the Global Environment Facility (GEF) and endeavored to establish regional cooperation for sustainable management of the ATS region, a second phase of the project is to be funded by GEF. The project, *Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2)*, sets out to begin implementation of the ATS Regional National Strategic Action Plans, building on the policy-making and scientific studies undertaken in the first phase of the project.

In line with the gender equality and social inclusion strategies, guidance and standards of both UNDP and GEF, the participation of women and men with equal voice is integral to the successful implementation of this project.

Climate change and environmental degradation tend to exacerbate existing gender and other social inequalities, with women and other vulnerable groups bearing the brunt of the negative consequences. These groups, however, should not be viewed as mere victims but rather as possessors of knowledge and skill with great potential as agents of change, particularly women. Understanding the risks and differential impacts of climate change on men, women and other vulnerable groups, and capitalizing on this knowledge in order to improve the efficacy of adaptation, is essential in the quest towards achieving sustainable, climate-resilient development.

As such, UNDP engaged the support of USAID Adapt Asia-Pacific, an integrated knowledge-transfer, capacity-building and technical-assistance program that supports eligible Asia-Pacific countries to prepare climate change adaptation projects for international climate financing, to provide gender and social inclusion recommendations to integrate into the project design.

The present report examines the state of social inclusion, including the differential roles, responsibilities and situations OF men and women in the ATS littoral countries. Specifically, it offers an analysis of the gender dynamics at play in ATS coastal communities in the context of increased environmental degradation and the projected increases in flood and drought intensity and severity as a result of the changing climate. The report provides guidelines for mainstreaming gender and social inclusion throughout ATSEA-2, outlining specific women's empowerment activities to be included in the implementation of the project.

The study team used a combination of primary and secondary sources, including a literature review, field visits and interviews, to characterize the social and gender dynamics of the ATS coastal communities in Indonesia, Papua New Guinea and Timor-Leste. The analysis centered on the importance of coastal and marine ecosystems in daily life, the impacts that a changing climate is having on a myriad of social issues, and the differential roles and responsibilities of different social groups.

Building on these findings, a strategy for mainstreaming gender and social inclusion throughout project implementation was designed for all three countries with project activities, Indonesia, Timor-Leste and Papua

New Guinea. In addition, a number of specific women's empowerment activities to be implemented at the demonstration sites within the Ecosystem-Approach to Fisheries Management (EAFM) and Integrated Coastal Management (ICM) project components were recommended for Indonesia and Timor-Leste. The recommended activities, listed below, are intended to increase the efficacy of the project by integrating gender dimensions into the ongoing activities.

At Ecosystems Approach to Fisheries Management (EAFM) demonstration sites:

Strengthen the Women's Forum Perempuan Masyarakat Adat Aru (in Aru Archipelago) in order to enable women to have a better position in the customary coastal management institutions, participate in the decision making process and advocate for women's rights in coastal and fisheries management.

Establish a Women's cooperative for fish post-harvest livelihood improvements (in the southern coast of Timor-Leste) in order to address the predicted effects of climate change on the coastal communities and reduce pressure on coastal and marine resources through livelihood diversification, raising the capacity of women to engage in small-scale fish processing businesses.

Pilot sustainable fish feed production and sourcing (in Timor-Leste's Southern Coast) in order to pilot local production of fish feed in a community that is already undertaking aquaculture activities, as per recommendations of the WorldFish study. This activity will be developed as a women's activity.

At Integrated Coastal Management (ICM) demonstration sites:

Drought resistant home gardens for climate change adaptation (in Posto Administrative Barique, Timor-Leste) in order to address the anticipated effects of climate change on the coastal communities, the proposed intervention will raise the capacity of women in selected communities to garden in water-scarce conditions. This will be achieved through the implementation of agricultural practices that allow for gardening in drought conditions, such as keyhole or bottle gardens.

Improved access to the market for women-run seaweed farming and/or processing (in Kabupaten Rote Ndao, Indonesia) in order to explore livelihood activities that are relatively resilient to climate change and that increase adaptive capacity of women and thus their communities.

Business and financial management training for women-run home-based businesses (in Kabupaten Rote Ndao, Indonesia) in order to explore livelihood activities that increase adaptive capacity of women and thus their communities, by proposing activities less susceptible to climate change or activities that are less reliant on vulnerable natural resources.

Solar Water Distillers and Business Skills (in Kabupaten Rote Ndao, Indonesia) in order to raise the capacity of women in selected communities to operate, service, and maintain solar-powered desalination units. It is proposed that this intervention is carried out in concurrence with government-led activities, and particularly focuses on supporting training of the middle-aged and older women in the servicing and maintenance of the units. Older women are deemed least likely to leave the village, and hence are seen as the most reliable group within the community to receive the training.

Increasing women's capacity to generate cash would not only bring direct benefit through improvement of family's quality of life, but will also play an important role in establishing a respected and empowered position for women both within the household and in the community.

The report concludes with a gender and social inclusion action plan, providing the implementation team a practical guiding framework for ensuring the strategic priorities outlined herein are achieved over the project's 5 year duration and over the years following project closure.

1 INTRODUCTION

The warm tropical Arafura and Timor Seas (ATS) are crucial globally, linking the Indian and Pacific Oceans and playing an important role in global ocean circulation. At the regional level, 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.

The ATS is extremely rich in living and non-living marine resources, including major fisheries; oil and gas reserves; and mangrove, seagrass and coral cover. The ATS contains 25% of the world's mangroves and 90% of mangrove tree species, as well as 15 species of seagrass recorded in Australian waters and 11 in Indonesian waters. 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.

Significantly, the ATS region exhibits high productivity that sustains both small- and large-scale fisheries, including several high-value, shared trans-boundary fish stocks, with industrial-scale fisheries, such as finfish trawl fishery, shrimp trawl fishery, and bottom long-line fishery. These fisheries provide livelihoods and food security for millions of people in the region, as well as large populations in export market countries to the north, including China.

However, the marine resources and ecosystems of the ATS are at risk. Many of the region's fisheries are over- or fully exploited. Poorly managed or unmanaged extraction of fish, prawns and other biota, coupled with other pressures such as pollution and disease, has led to a decline in living resources within some areas of the ATS. Major marine and land-based pollution impacts, as a result of coastal mining activities, poor catchment practices, offshore oil/gas exploration, and the effects of fisheries (e.g., marine debris, discarded fishing nets, etc.), are having negative effects on the marine ecosystem.

Climate change is further exacerbating this situation. 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 change. Climate change is predicted to alter the coastal environment of the ATS region in many ways (Kirono 2010), including increases in annual air temperatures and rainfall; heat wave duration; sea surface temperatures; sea level rise; ocean acidification; and the inter-annual variability of the Asian monsoon, as well as decreases in annual potential evaporation. These changes will threaten lives and livelihoods both in the waters and on the coasts. Development projects designed for the ATS region thus need to be cognizant of changing climatic conditions, in particular when addressing food insecurity and fresh water availability.

The first phase of the Arafura and Timor Seas Ecosystem Approach (ATSEA) Program, which was funded by the Global Environment Facility (GEF) and implemented by the United Nations Development Program (UNDP) from 2010-2014, endeavored to establish regional cooperation for sustainable management of the ATS region. The program undertook a number of scientific assessments of the ATS, and established a regional strategic action plan (SAP) which was adopted by Australia, Indonesia and Timor-Leste in a formal ministerial signing ceremony. Based on the SAP, a national action plan (NAP) was developed for both Indonesia and Timor-Leste.

Building on the successes of this first phase, UNDP is again partnering with the governments of Indonesia and Timor-Leste to design a second phase of the project to be funded by GEF. The project, *Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2)*, sets out to begin implementation of the SAP and NAPs, building on the policy-making and scientific studies undertaken in the first phase of the project. In line with the gender equality and social inclusion strategies, guidance and standards of both UNDP and GEF, the participation of women and men with equal voice will be integral to the design of this project.

1.1 GENERAL ATSEA-2 PROJECT DESCRIPTION

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

ATSEA-2 will begin implementation on these five objectives of the SAP as per the proposed project components and expected outputs for ATSEA-2 summarized in the table below, which is drawn from the Project Identification Form (PIF) approved by GEF.

TABLE 1: A SUMMARY OF ATSEA-2 PROJECT COMPONENTS AND EXPECTED OUTPUTS	
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 (Regional Coordination Committee, Stakeholder Partnership Forum; inter-ministerial committees, financing mechanisms);
Outcome 1.2:	Strengthened institutional and human resource capacity towards integrated approaches in natural resource management and biodiversity conservation (harmonized local policies, localized guidelines/handbooks, national and local trainings);
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	
Improve LME Carrying Capacity to Sustain Provisioning, Regulating & 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 (EAFM; fisheries certification; reduction of IUU fishing; ICM Plans);
Outcome 2.2:	Reduced marine pollution improves ecosystem health in coastal/ marine hotspots in the Arafura and Timor Seas (ATS pollution hotspots identified; controls of point and non-point sources of pollution);
Outcome 2.3:	Biodiversity conserved through an MPA network Coastal and Marine Biodiversity Conserved through Protection of Habitats and Species and Rehabilitation of Degraded Ecosystems (database on coral, mangrove and seagrass beds, protection of endangered marine mega fauna such as turtles and dugongs);
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 (CCA incorporated in ICM plans).
COMPONENT 3	
Knowledge Management	
Outcome 3.1:	Improved monitoring of the status of the ATS and dissemination of information (SMART Indicators) and dissemination of information (with contributions to IWLEARN equivalent to 1% of the IW grant).

Socio-economic benefits and gender dimension of ATSEA-2 identified in PIF

The PIF identified the following measures for mainstreaming gender considerations to be included in the design of the ATSEA-2 project:

1. Special stakeholders consultations with women's associations active in the project's ICM and other field sites that were identified in the TDA/SAP preparation project;
2. Consideration of differences in labor utilization when designing detailed project field activities, such as for example, the different roles of men and women in fisheries where women play an important role in local processing and marketing;
3. Design of training activities targeting women on enhancing resilience of coastal ecosystems to improve livelihoods and nutrition at selected sites in Indonesia and Timor-Leste;
4. Development of gender disaggregated indicators for monitoring project impacts, especially with respect to socio-economic benefits and livelihood improvements

The PIF further proposed to collaborate on integrated coastal management (ICM) activities with the PEMSEA program (Partnership in Environmental Management for the Seas of East Asia). One of the foci of PEMSEA is to “develop economic activities in the coastal and marine environment that contribute to economic prosperity and social wellbeing while safeguarding ecological values”.

1.2 OBJECTIVES OF THIS DOCUMENT

The present document lays out the policy-framework and social and cultural factors relevant to the proposed project components in Indonesia, Papua New Guinea, and Timor-Leste. After providing an overview of socio-economic characteristics per country and in each of the proposed project demonstration districts (Rote Ndao, Aru Islands and Merauke in Indonesia; the municipalities within the southern coast of Timor-Leste; and the South Fly District in Papua New Guinea), the document provides recommendations for gender integration into the ATSEA-2 project design in order to foster greater sustainability of project results. The gender integration process starts during project formulation, focusing on the gender-related elements of climate change vulnerability and adaptation capacities. This report endeavors to design activities that sustainably respond to climate change impacts with an aim towards empowering women and other vulnerable groups.

This document was developed in consultation with a number of relevant stakeholders. The information presented here helps to assess the current socio-demographic and gender characteristics at the national level, as well as, to the extent of data availability, in the proposed project areas. A further objective of this document is to detail the gender component of the project and directly contribute to the development of the ATSEA-2 project document, by providing the following:

- (i) Suggestions for integration of specific gender activities into project design and project budget, including community driven investments that deliver tangible economic benefits directly to vulnerable women and their families and the concrete activities and outputs that specifically focus on women and women's groups; and
- (ii) Contribution to the development of gender specific and disintegrated project indicators throughout project components.

Importantly, this report also contains a Gender Action Plan for the project implementation team, which will serve as a basis for addressing gender considerations throughout the project implementation phase. The Plan includes a number of activities, namely:

- identification of relevant social groups, in particular vulnerable groups such as low-income families, youth and women, for whom the project team will (1) develop consultation and other participatory activities to be conducted specifically with those groups to ensure their needs are taken into account; and (2) identify potential project benefits specifically for such groups;
- implementation of the specific gender activities designed in this report;
- utilization of appropriate social development and gender indicators for monitoring the project, including recommendations for the greater involvement of local communities and women.

Section 1.3 contains an overview of gender-related policies and commitments of the Governments of Indonesia, Papua New Guinea, and Timor-Leste. Methods are presented in Section 2, and the relevant background information providing context for the prevalent social inclusion and gender issues in ATS region in Section 3. Section 4 proposes specific project actions for social inclusion and gender mainstreaming, as well as gender-specific indicators. Specific gender actions are described in detail in project activity descriptions, presented as Annex A to the project document and thus not re-attached here.

1.3 GOVERNMENT POLICY AND PRACTICE ON GENDER AND SOCIAL INCLUSION

The sections below detail the relevant Indonesia, Papua New Guinea, and Timor-Leste government gender and social inclusion policy as well as current practice as it relates to the implementation of the SAP for the ATS region.

Republic of Indonesia

There are three main laws regulating marine resources in Indonesia:

1. The Law of the Republic of Indonesia No. 1 (2014) (an amendment to Law No. 27 of 2007 on the management of coastal zones and small islands), outlines the planning strategy for coastal areas and small islands, resource utilization including the right to undertake business in coastal areas, conservation, community empowerment, and surveillance and monitoring. This law recognizes the coastal areas and small islands need to be preserved and exploited for the greatest benefit of the people (article 21, article 60).
2. The Law of the Republic of Indonesia No. 45 (2009) (an amendment to Law No. 31/2004) on fisheries, provides the legislative basis on which fisheries can be managed sustainably.
3. The law of the Republic of Indonesia No. 32 (2014) on marine space outlines the utilization of marine space and resources recognizing the right and access of coastal communities to benefit from the resources.

All these three laws recognize and acknowledge coastal communities as an integral part of coastal and marine ecosystems and thus a key stakeholder.

In order to execute the initiatives, these laws (Undang-Undang/UU) are carried out under several government regulations (Peraturan Pemerintah/PP) and ministerial decrees (Peraturan Menteri/PerMen). Some relevant government regulations and ministerial decrees include:

- PerMen MMAF No. 8 (2009) on community participation and empowerment in coastal and small islands management. This ministry regulation outlines the objectives of community participation to enhance the capacity of coastal communities, protect the marine resources for

the benefit of local people and improve the welfare of coastal communities. This regulation assures the coastal communities have the right and access to better livelihoods (article 3).

- Under the regulation of MMAF No KP No. 12 (2010) on Minapolitan, the government plans to develop a concept zone based marine and fisheries economic development that integrates production, processing and/or marketing units. The government supports initiative to improve the economic capacity of maritime and fisheries society on micro and small scale (article 4).
- PerMen MMAF No. 17 (2008) on conservation on coastal and small islands outlines that the marine conservation establishment should incorporate social and economic data as well as biophysical data (article 12), giving prominence to socio-economic considerations in coastal and marine planning. This regulation also outlines the importance of community empowerment (article 36) and the management of marine conservation for the benefit of local people (article 37, 38).

The above laws don't specifically mention gender nor do they recognize the different roles men and women play in the utilization of marine and coastal resources. However, cooperation between the Ministry of Women's Empowerment and Child Protection and MMAF through No 6 MenKP/III/2011 promotes mainstreaming of gender in MMAF programs. This is further supported by a Ministry of Finance regulation on planning and budgeting of gender considerations in the MMAF. The main MMAF activities to date on the mainstreaming of gender concerns involve the strengthening of gender knowledge and awareness within the MMAF and the collection of gender disaggregated data - for example, in Indonesia, around 64% of total labor in fish processing plants are women (KKP 2011). MMAF is also implementing specific gender activities, such as developing post-harvest centers to enable fish processing; networking of micro enterprises; and developing gender-specific aquaculture models. In addition, MMAF also promotes women leaders through the CTI-CFF Women Leaders' Forum, a network of women leaders in marine conservation.

Papua New Guinea

Section 55 of the Constitution of Papua New Guinea calls for equality of citizens in all areas of social, economic and political development irrespective of race, tribe, place of origin, political opinion, color, creed, religion or sex. This allows for the making of laws and policies for special benefit, welfare, protection or advancement of females, children and young persons, members of underprivileged or less advanced groups or residents of less advanced areas. One such policy is the National Women and Gender Equality Policy 2011-2015, developed by the Department for Community Development, which promotes the equal participation of women and men in decision making; supports women and girls so they can fully exercise their rights and reduces the gap between women's and men's access to and control of resources and the benefits of the development process.

In 2013, national government has developed the *National Public Service Gender Equity and Social Inclusion (GESI) Policy* that provides guidance to National Public Service agencies in addressing gender equity and social inclusion issues within their own workplaces. This policy has adopted the framework for implementation and the relevant priority action areas and targeted priority areas for action as articulated in the National Policy for Women and Gender Equality 2011-2015 and the Papua New Guinea National Policy on Disability 2009. It is also consistent with the various international conventions which have been ratified by PNG.

The GESI policy applies to all National Government Departments, Provincial, District and Local Level Government Administrations and other agencies. As a major employer of people in PNG the National Public Service acknowledges their responsibility to lead this initiative and recognizes that it might have

wide ranging benefit for not only employees but also their families and the wider community. GESI gender mainstreaming activities are focused in two different areas:

- Internal – This focuses on creating, enabling and sustaining an equitable and socially inclusive working environment, which in turn contributes to a highly functioning and well-respected organisation.
- External – This focuses on ensuring equity and social inclusion considerations are extended across National Public Service goods, services and programs delivered to the community.

Thus, all programs, projects and activities delivered in partnership with the Government of PNG need to be compliant with GESI.

Democratic Republic of Timor-Leste

The National Strategic Development Plan (SDP 2011-2030) envisions the restoration of a strong bond between the Timorese people and their environment as well as the sustainable management of natural resources and the environment for the benefit of all.

The country's key climate change adaptation priorities are outlined in the National Adaptation Program of Action (NAPA), finalized in 2010. This proposed ATSEA-2 project will contribute to several NAPA priorities. First, it will help to build resilient rural livelihoods, in an effort to secure national food security. Second, the project responds to the priority of restoration and conservation of coastal and marine ecosystems and awareness-raising on protecting coastal ecosystems in the face of sea level increases. Third, the project will work to improve institutional, human and IT capacity in relation to climate change induced risks at national, district and community levels.

The project also responds to the following two strategic priorities of the National Biodiversity Strategy and Action Plan (NBSAP): (i) building climate-resilient ecosystems through effectively managing protected areas and reducing threats to biodiversity; and (ii) enhancing biodiversity and ecosystems services to ensure benefits to all.

Women can be affected differently by climate change than men, and quite often more severely. A recent assessment of an existing AusAid funded disaster risk reduction program in Timor-Leste found that gender and other social concerns are routinely under evaluated. Gender stereotyping continues to be prevalent according to the analysis.

The government of Timor-Leste is making significant efforts to promote gender equality. The country ratified the Convention on the Elimination of all forms of Discrimination against Women (CEDAW) in 2003; and equality of women is formally enshrined in the constitution. The Program of the Fifth Constitutional Government 2012-2017 Legislature specifies development of social capital as the first key area of government priorities. Social capital includes aspects of social inclusion; environment; and culture and heritage. The Legislature also commits the Government to “Enhance its commitment to gender equality between men and women in all spheres of life. Gender equality is guaranteed in our Constitution and must be a central consideration of all Government programs and decision making.”

The Government's Gender Integrated Approach has provided for gender representation in all government agencies dedicated to national development. However, the Government intends to provide even more focus to the issue of gender in key ministries, such as the Ministry of Agriculture and Fisheries, the Ministry of Health, the Ministry of Education and the Ministry of Justice, relying on support by the Secretary of State for the Promotion of Social and Economic Support for Women (SEPASEM).

Training in gender-responsive budgeting and gender mainstreaming for each ministry is also under way (“Gender Budget Resolution” was passed by Parliament in 2009). However, it remains difficult to obtain and analyze the details of the budgets of each ministry (JICA, 2011). SEPASEM supports one staff member (Gender Focal Point) in each District. Further, Gender Working Groups are established at the National and District levels in an effort to foster greater senior level buy-in for activities promoting gender equality. The Gender Working Group at the District level comprises representation of government departments such as Education, Rural Development and Health in addition to the Police. SEPASEM supports the working groups through trainings. However, members of the working groups are civil servants of other departments/ministries, and as such are under no direct control or influence, nor are funded by, SEPASEM. All government departments should have their own gender action plan and budget for gender mainstreaming activities, and a gender action plan should also be drafted for all Districts and aligned with the budget of the various line ministries.

2 METHODOLOGY

This document was developed in line with relevant sections of the UNDP Social and Environmental Standards and the USAID Gender Sourcebook (Diamond and Lellement, 2014). The recommendations highlighted in this report will need to be mainstreamed into other project documents, namely the project document and any relevant Technical Annexes to the project document.

ATSEA-2 consists of a number of project components, providing benefit on variety of levels, from regional, to national, to subnational, to the communities. Therefore, a combination of (a) secondary data on international, national and district level indicators; and (b) both secondary and primary data specific to the pilot communities selected for implementation, is provided. Recommendations presented in this report are supported by discussions with the relevant stakeholders. A list of the stakeholders consulted throughout the design development is presented in the Stakeholder Engagement Strategy.

Secondary information presented in this report was obtained from a number of sources. For Indonesia, the most recent data for year 2015 was obtained from the Kabupaten statistical offices for the three Kabupatens where project activities will be carried out: Aru, Merauke, Rote Ndao. For Timor-Leste, the most recent data comes from the National Demographic and Health Survey conducted in 2009-10 by National Statistics Directorate (NSD), Ministry of Finance, and ICF Macro, and the resulting report¹. Data reported by Busilacchi et al (2014) and the Department of Personnel Management (2013) provided socio-economic context for Fly District in PNG.

Data specific to gender and climate change adaptation in the relevant communities is very limited or non-existent. In order to address this gap, primary data collection via focus group discussions (FGDs) was conducted in September and October of 2015. A total of over 20 men and 30 women were consulted via FGDs and informal interviews, at the district level and in the communities of Landu, Oeseli, Batatua and Nembrala in Rote Ndao, Indonesia; and at the district level in Aru, Indonesia. In Timor-Leste, small FGDs were held along the southern coast in Suai, Manufahi and Barique. Subjects discussed during the FGDs included: (1) livelihoods and labor division between men and women; (2) use and condition of communally owned resources (mangroves, reef); (3) existing village institutions; (4) climate observations and vulnerabilities; and (5) suitability of and interest in activities identified by experts as feasible livelihood options for implementation by this project.

Inclusion of Papua New Guinea occurred late in the project preparation phase, and there was, hence, insufficient time and resources to carry out field visits. Design of activities was based upon interviews with key stakeholders, desktop review of other initiatives, and collected professional knowledge and experience among the PPG team.

Further data collection is recommended over the life of the project. Baseline data should be collected in all villages taking part in project activities at the start of the implementation phase. Monitoring and Evaluation data should be collected in support of social and gender indicators as proposed in the Gender Action Plan (GAP) and other relevant indicators proposed in the Project document.

¹ <http://microdata.worldbank.org/index.php/catalog/1500>

3 SUMMARY OF MAIN SOCIAL, ECONOMIC AND GENDER ISSUES FACING THE ATS REGION

3.1 INDONESIA

The Human Development Index (HDI, UNDP) is a composite measure of three basic dimensions of human development: health; education; and income, with higher HDI scores indicating higher development status of the country (to a maximum of 1). As a composite measure HDI represents a broader definition of national well-being, and is an alternative to conventional measures of national development, such as level of income and the rate of economic growth. Overall HDI for Indonesia in 2014 was 0.684, placing Indonesia into a ‘medium human development’ group of countries. Indonesia ranks 108 out of 187 countries in the world, with the comparable data.

The Gender Development Index (GDI), based on the sex-disaggregated HDI, is a ratio of the female to the male HDI. Indonesian GDI in 2014 was 0.923 (98th place), much higher than the ‘medium human development’ group of countries average of 0.875.

Indonesia’s Gender Inequality Index² score of 0.500 (103rd place) is mainly due to relatively high maternal mortality, a high adolescent birth rate, and low labor market participation rate of women. For example, data from 2013 shows that Indonesia still suffers 228 infant deaths for every 100,000 live births, compared to MDG of 105 deaths by 2015. At 190 maternal deaths for every 100,000 live births, maternal mortality also remains high.

Female representation in parliament is comparable to the region. Percentage of female population with at least some secondary education is higher than percentage for males.

The country’s gross national income per capita has steadily risen, from \$2,200 in the year 2000 to \$3,524 in 2014. Today, Indonesia is the world’s fourth most populous nation, the world’s 10th largest economy in terms of purchasing power parity, and a member of the G-20. It has made enormous gains in poverty reduction, more than halving the poverty rate since 1999, to 11.3 percent in 2014.³

Out of a population of 252 million, more than 28 million Indonesians currently live below the poverty line and approximately half of all households remain clustered around the national poverty line set at 292,951 rupiahs per month (\$24.4).

Despite recent progress, however, access to improved sanitation facilities currently stands at 68 percent of the population, which remains significantly short of the MDG target of 86 percent.

3.2 PAPUA NEW GUINEA

Papua New Guinean women generally suffer as a result of their low social status. This is reflected in PNG’s Gender Inequality Index (GII)² as 0.784 in 2008, ranking it 133 among the 169 countries assessed. The life expectancy of females is lower than that of males. Women also suffer from excessive workloads, malnutrition, poor access to safe water and healthcare service, excessively repeated pregnancies and gender-based violence both at home and in the workplace. PNG’s maternal mortality rates are more than double those in neighboring South-East Asian and Pacific countries. Education enrolment rates for girls compared to boys are among the lowest in the region.

² The Gender Inequality Index (GII) reflects gender-based inequalities, and is measured by maternal mortality and adolescent birth rates; share of parliamentary seats held by women; and attainment in secondary and higher education by each gender; and economic activity is measured by the labour market participation rate for women and men. The GII can be interpreted as the loss in human development due to inequality between female and male achievements in the GII dimensions.

³ <http://www.worldbank.org/en/country/indonesia/overview>

Rates of gender based violence continue to rise with recent research identifying more than 50% of women having experienced forced sex, gang rape or payback rape and women are often subjected to torture or murder when suspected of sorcery.

Women in PNG are consistently at risk of violence in their homes and workplaces which results in impeding women from obtaining financial or economic survival or access to employment. As a result many women in urban centres are increasingly reliant on the exchange of money, goods and favours for sex, either informally or through regular sex work.

Papua New Guinea has made substantial progress by being a signatory to the Convention on the Elimination of all Forms of Discrimination against Women (CEDAW) and by developing the legal framework governing equal opportunity for men and women. However, as of December 2007, there was only one female national judge out of 27 judges and the first female law lecturer was appointed in 2005. Women's political participation was extremely low, rating 119 of a 121 countries with only four women ever being elected to PNG's National Parliament. By 2012, there were two female national judges, 22 district court magistrates and seven women in the Parliament. Women held almost 25% of jobs in public services (the main employer in PNG), but only 12% occupied executive management positions, such as Departmental Secretary or Deputy Secretary. There are many reasons for this, including lack of opportunity and access to necessary information and educational standards, cultural and gender expectations as to women's roles in society and organisational policies and practices that have not encouraged women to enter the workforce (Department of Personnel Management, 2013).

The total population of the South Fly District was estimated in 2012 at 56,000 (Busilacchi et al., 2014). Much of the District is sparsely populated and access is difficult due to a lack of transport infrastructure. Most travel in the district is water based, by canoes and outboard motors, which are the most common transport along the many rivers and along the coastline. There are some limited dirt roads in the district especially around Morehead in the west of the district. According to the 2013-2017 South Fly Development Plan, only 12.4% of households have access to electricity.

Nearly all households in the coastal Treaty villages are involved in fishing activities. There is no agriculture pressure, land potential is low, access to services is moderate and cash incomes are low. Fish is a major source of animal dietary protein in Papua New Guinea, with subsistence fishing accounting for approximately 64% of total fish consumption in rural areas. Fisheries are also an important livelihood source for coastal communities.

Available gender information for the South Fly District is limited. Studies in other parts of Papua New Guinea have found, for example, that female fishers account for 20-50% of the annual catch (Kinch, 2013). Study conducted in New Britain found that fishing is important to each and every household, with at least one person from each household regularly going fishing and one collecting aquatic species. Indeed, fishing was a gender dependent activity, with males commonly involved in fishing and females mostly involved in collecting aquatic species (Farr et al, 2016). Similarly, for South Fly, based on personal communication with NFA officials, percentage of females participating in fishing is essentially 50% among the artisanal fishers in the Treaty Villages. Women are also actively involved in harvesting, processing, and marketing marine resources. However, they remain poorly represented at the management and planning levels.

3.3 TIMOR-LESTE

Specific recommendations for the development of gender sensitive assistance projects in Timor-Leste were provided in the JICA Country Gender Profile: Timor-Leste (JICA, 2011). This report stresses the need for full understanding of how the patriarchal society persistent in the villages in Timor-Leste affects women's lives, including pervasive violence against women. The report suggests furthering understanding of local gender issues in project development phase via social surveys and interviews with men and

women. In the implementation phase, the report encourages participation of both men and women, while conducting monitoring to promote reduction of gender disparities. Further, they stress the necessity of recognizing the harsh situation of women in rural areas as one of the greatest risk factor in accomplishing the project's planned goal and outcomes. The report recommends generation of profits (cash) and the development of infrastructures such as roads and bridges, as main areas of benefits for women of Timor-Leste.

In summary, the main identified areas of concern based on statistics and the stakeholder consultations, in terms of gender equality, can be summarized as:

- Lack of education and extremely low literacy levels;
- Low access to media (compounded by low literacy);
- High maternal and child mortality and malnutrition; High fertility rates and high number of dependent children;
- Lack of cash income; and Lack of inheritance and land ownership rights; both resulting in
 - o overdependence on husbands
 - o inability to escape domestic abuse and violence
 - o inability to raise cash and proceed with potential business ideas;
- Very high levels of domestic violence and its wide-spread acceptance;
- Low decision making rights;
- Sole responsibility for reproductive work (household duties) but equal responsibility for productive work and sale of produce; creating work overload for women.

The key vulnerability perceived in relation to climate change was decline in agricultural production. Respondents clearly articulated that when agriculture goes down, pressure on other resources – and fisheries and forests in particular - will go up. Negative impact on fisheries is expected to occur as a secondary impact of climate change, due to increased fishing effort related to human pressure, and not due to direct impacts of climate on fisheries (Larson, 2015). The same is true for mangroves that will in addition to direct climate impacts also suffer from increased anthropogenic pressure. An added anthropogenic consideration for the fisherman in this region is that large-scale commercial fishing operations have moved to this area from the other Asian countries. This could lead to rapid depletion of fisheries, further limiting the capacity of local fisherman to respond to “lean years”.

Women's concerns related to the climate change were broad, concerning overall family wellbeing (including access to the water, food security, education and health). Such findings suggest benefits of adopting a more integrated approach to climate change adaptation and disaster risk management, that takes into account wellbeing overall rather than just livelihood concerns.

Further, it is important to stress that climate change adaptation cannot be promoted in isolation of the issues that currently face communities, and the nation overall, including among others demographic boom (with half population under age of 15, Molyneux et al, 2012), soil loss (about 2.5 times higher than the world average) and high annual rate of deforestation (four times the world average, Henrique et al, 2011). If such trends are not reduced, the flow of goods and services that the natural and semi natural ecosystems still perform nowadays, will progressively decrease in the near future, with unpredictable consequences in ecological, economic and social aspects (Mota 2002). In addition, data available to measure the income generated from, or the quantity of the goods and services consumed from the natural and semi natural ecosystems, remains scarce or non-existent (Henriques et al, 2011).

3.4 CLIMATE CHANGE ADAPTATION AND WELLBEING

Fieldwork on Rote Ndao Island in Indonesia indicated that no climate change vulnerability assessments were done with the communities. However, people attending focus group discussions reported noticing changes in weather patterns, including longer dry season; increase in sea water temperature and change in

sea currents. The main livelihood concerns were related to the poor seaweed harvests potentially caused by rising sea temperature.

The South Fly area of PNG, due to the low-lying topography, is vulnerable to fluctuations in sea level. Of particular concern are climate-influenced health impacts, which could increase in the future as a result of changes in temperature and weather patterns. Malaria remains a challenge in Papua New Guinea, as evidenced by a widespread outbreak in 2009. More intensive storms are also expected to increase the risk of pollution from mining waste runoff. Following flooding rains in May-June 2012, coastal villages along the Fly River were inundated, and coastal fish resources were deemed unsafe for several months due to possible heavy metal contamination.

In Timor-Leste, community planning exercises funded by donor agencies have been or are currently being undertaken in more than 100 villages in. For example, Oxfam conducted vulnerability and disaster risk management planning in more than 80 sucos; while CARE is implementing its Climate Vulnerability and Capacity Analysis (CVCA) in more than 33 aldeias (Larson, 2014). In previous research, women were found to be more concerned about impacts on household gardens, health, education and access to markets; while men were more concerned about destruction of houses and loss of large animals. These differing perceptions are in line with the division of labor and differing responsibilities of men and women in the household. The implications of these differences are that women's workload is likely to increase following climate change induced livelihood shocks, as their caring responsibilities and work related to household food security, increase. In addition, women's differential access to land, information and training may increase the risks they face during natural disasters, while their lead role in ensuring household food security and supplying water and fuel may become more time-consuming as a result of climate changes. Also, the climate change and the changes and stresses that may accompany it can have an impact on household relations and can precipitate violence within the family.

4 PROJECT STRATEGIES AND RECOMMENDATIONS

Gender mainstreaming in the project cycle requires raising gender equality issues at each step in the cycle. The UNDP Gender Mainstreaming in Practice (2007) checklist needs to be used as a final guideline for development of a gender mainstreamed project document:

- *Background and justification:* Gender dimension highlighted in background information; Justification includes arguments for gender mainstreaming and gender equality
- *Goals:* Goals of the proposed components reflect the needs of both men and women
- *Target Beneficiaries:* There is gender balance within the target beneficiary groups
- *Objectives:* Objectives of the project components address needs of both women and men
- *Activities:* Gender-specific activities were included to ensure that a gender perspective is made explicit
- *Indicators:* Indicators have been developed to measure progress towards the fulfilment of each objective; These indicators measure gender aspects of each objective and are gender disaggregated; Targets are set to ensure a sufficient level of gender balance in activities
- *Implementation:* Responsibilities for implementation are specified in the Gender Action Plan and incorporated into Project document; Both men and women will participate in the implementation
- *Monitoring and evaluation:* Monitoring and evaluation (M&E) includes a gender perspective; Both men and women will be represented in the M&E
- *Risks:* It is acknowledged that the greater context of gender roles and relations within society poses a potential risk for achieving proposed outcomes of the project components; Potential negative impacts of the activities, such as overburdening of women and girls, have been considered.
- *Budget:* Gender specific financial inputs need to be provided within each project component, including staffing and training, to ensure that both men and women will profit from the planned activities.

In addition, project strategies and recommendations for this project were developed in line with the guiding principles proposed in ‘An Online Sourcebook: Integrating Gender in Climate Change Adaptation Proposals’ (Diamond and Lellement, 2014):

- *Stakeholder participation in CCA project design:* Gender analysis was initiated during project development with the engagement of a gender equity and social inclusion coordinator. Once potential types of adaptation projects were identified, stakeholders were consulted on their applicability, desirability and relevance.
- *Social dimension:* Building resilience and decreasing risk for communities and households has a potential to create significant positive economic and social changes in the lives of both women and men. Better adapted communities will result in better adapted less vulnerable women, and vice versa. Therefore, all of the activities and interventions identified in this project will have an impact on women and as such include some aspect of gender mainstreaming and gender disintegrated indicators.
- *Gender issues* for the proposed topic, country, and project locations need to be identified via data collection: Better proposals result from understanding the types of gender-sensitive interventions that have become good practices for particular sectors or regions. Secondary gender data are not always adequate and may need to be supplemented during project design. Therefore, this document was developed through collection of both primary and secondary data, including stakeholder consultation,

leading to identification of gender specific issues and needs, as well as national-level institutional and policy frameworks and national commitments to gender and social equality.

- *Gender expertise* greatly enhances attention to gender in project design and proposal preparation: Both national and international gender expertise was utilized in the preparation of this document. Arguably, early inputs by gender specialists helped collect relevant gender data and understand the project implications of those data, develop gender inclusive project components, and a gender-mainstreamed project overall.
- *Specifying people-level outcomes*, including sex-disaggregated and gender-related indicators: Inclusion of such indicators can set the course for better gender mainstreaming during project implementation. Projects are much less likely to find the commitment and resources to address gender issues if targets, plans and budgets are not specified at the proposal stage.

Application of ‘gender ladder’ approach to the design of gender interventions (Larson, 2015) is also recommended for this project. First types of changes or first steps on “gender ladder” are (1) gender-related discursive and knowledge frameworks and terminology, followed by (2) increased control that women gain over communicating their perspectives. In addition, (3) men’s resistance to ‘gender’ as a foreign and modern imposition with destructive impacts upon communities and families, needs to be overcome before move to renegotiation of gendered divisions of labor and responsibility can be negotiated. ‘Jumping’ these first steps of change might jeopardize not only project outcomes, but also outcomes of future projects and activities targeted at women in that area. Progressing towards (4) moving of women activities from domestic sphere into more formalized, public spaces and distinction between ‘home’ and ‘work’, (5) recognition of women’s capacity to manage finance (with the note that the defense of the above becomes more difficult over the long term if the financial results are lacking) and (6) leadership roles; can only progress after the first of the steps are accomplished. Design of new projects and activities therefore needs to take into account current level of gender awareness in the community, a current ‘progressive step’ on a gender ladder.

Therefore, activities targeting specifically women should be recommended only for villages that have already had exposure to projects/activities and that have some level of functioning women institutions (closer to step (4) on gender ladder). Otherwise, the activity will have a high risk of non-adoption as a result of gender constraints. It is essential to understand that the importance of the exposure is not to the “subject”, that is to say, the community does not need to have been exposed to gender sensitivity through a biodiversity or climate change vulnerability type of a project; the importance lies in the community being exposed and sensitized to a gender-sensitive process, hence this could be through a previous health, sanitation, education or any other type of project. Hence, “Gender sensitive community engagement has occurred - not necessarily BD/ICM related”, was included as one of the Site Selection Criteria for the communities to be involved in this project.

Further, it is recommended that this project consider gender on two levels in the project design:

- (1) equal engagement and consideration of men and women in all activities; plus
- (2) specific activities targeting women only.

Continuous presence of gender expertise on project implementation and monitoring teams; assignment of dedicated budget for gender activities; gender indicators and targets; and gender-sensitive results monitoring, are strongly recommended for future stages of the project and described in the coming sections.

4.1 ENGAGEMENT OF MEN AND WOMEN IN ACTIVITIES

In terms of engagement and consideration of men and women in this project, **the following is recommended for all project activities/ outputs proposed in all three countries:**

- Goals of each proposed project component, as well as objectives and description of outputs, clearly reflect the needs of both men and women.
- Gender specific financial inputs for consultations, staffing and training, are provided within each project component, to ensure that both men and women will profit from the planned activities.
- Project components are designed with the full acknowledgment of limited human capacity within the communities, and greater society. Sufficient time and budgets have been allocated to each project component in order to allow for ‘socialisation’ of the project engagement and gender targets.
- Indicators developed to measure progress towards the fulfilment of each objective and targets are set to ensure a sufficient level of gender balance in activities; further, indicators measure gender aspects of each objective and are gender disaggregated.
- Gender-related responsibilities of the project are specified in the Gender Action Plan (GAP); GAP is implemented by suitably trained and dedicated personnel throughout the project life.
- Project Implementation Unit employs a gender equity and social inclusion coordinator who will ensure that planned activities are, indeed, conducted. A proposed draft Terms of Reference for this position are provided in the project document and the position is budgeted in regional project management unit (RPMU) budget.
- Potential risks to the project emerging from the greater context of gender roles and relations within society are fully acknowledged in the project design.
- Potential negative impacts of the activities, such as overburdening of women and girls, have been considered in the design of project components.
- Monitoring and evaluation (M&E) includes a strong gender perspective; financial, economic, social and cultural cost and benefits, to both men and women, in the communities are monitored and evaluated in a comprehensive manner throughout the project life and post-project.

Equal consultation with men and women will continue throughout the project implementation and monitoring and evaluation phases. In addition to the project activities, including M&E activities, gender balance will be ensured in broader areas of:

- Knowledge and experience collected, developed and disseminated,
- Decision-making and governance,
- Outcomes and benefits,
- Among participants in all consultation forums.

Specific activities and targets have been set for individual project components and their outcomes. These activities and targets relate to all three countries of project implementation, Indonesia, Papua New Guinea and Timor-Leste. All of the activities are incorporated in and budgeted for in the relevant project components. Specific targets recommended for all project activities/outputs, for all three countries, can be found in Gender Action Plan (GAP) sections (A) Overall Project Implementation (Appendix A to this document). Please also refer to the project document, and the project budget and workplan for more details.

4.2 PROJECT SELECTION PROCESS FOR WOMEN'S ACTIVITIES

In addition to good gender practices recommended for all project components as per previous section, some of the activities considered for this project have been developed as gender-specific activities.

Therefore, in addition to gender considerations specified in the previous section, this project Outcome was assessed for its potential to include women's activities.

Problem Identification

Most households in eastern Indonesia, in South Fly District in Papua New Guinea, and in particular in Timor-Leste, have limited resources and low food security, and local communities remain vulnerable to the effects of climate change. This is because such communities rely strongly on livelihoods that will be negatively affected by projected changes in regional climatic conditions, such as an increase in the length of dry season, increased intensity of rain and wind events, and higher sea and air temperatures. Poor harvests will likely result in increased efforts on communal areas, such as an increase in the fishing effort, reef and shallows gleaning, and the overuse of mangrove forests. This project therefore proposes to explore livelihoods that increase adaptive capacity of women and thus their communities, by proposing activities that are:

- (a) not dependent on natural resources and
- (b) reduce vulnerability to climate change.

Adaptation options are particularly critical in developing countries which experience severe financial, capacity, institutional and other constraints (Larson, 2013). For them, climate change is an additional obstacle to other drivers of change, such as increasing populations, provision of basic needs such as clean water and shelter, livelihood security, and other poverty reduction and development goals. Hence, climate change adaptation must form a part of a holistic response which aims to build resilience of communities to the range of shocks and stresses to which they are exposed (Daze et al, 2009). Initiatives that result in higher wellbeing/quality of life levels should be promoted in conjunction with the decreases in vulnerability, enforcing the positive feedback-loop of further increasing both adaptive capacity and the wellbeing in the long term (Larson, 2013). Promoting activities less vulnerable to climate change (i.e. less dependent on natural resources) could increase adaptive capacity of women and thus the communities they live in, in turn further increasing their wellbeing and quality of life.

Activity selection process

A number of livelihood interventions/activities were identified by project experts during the project development stage as feasible for consideration by this project design team. The identification process was two-pronged, starting with the review of literature on previous similar projects underway/ completed in Indonesia and Timor-Leste. Potential activities thus identified were further discussed with key stakeholders from relevant government ministries as well as NGOs and donor community (Box 1).

Potential community interest in the activities was tested next, using informal interviews and Focus Group Discussions (FGDs) with a total of 10 men and 20 women in Indonesia and a total of 10 men and 20 women in Timor-Leste. Livelihood options discussed and the findings of the consultation process are further described below.

A number of potential activities that relate to many villages were identified during the field work. Livelihood diversification was low in the villages visited, as was the willingness to diversify. Communities suggested they would be willing to switch to another activity, but only if the payoff was certain. There were a few individual women who had received particular training and used those skills (i.e. cake baking, fish ball making, tailoring) to make additional income. The communities expressed a particular interest in the following:

- **Solar powered water desalination:** Fresh water was a big issue in every community visited, with women spending considerable amount of time every day gathering water. Therefore they expressed desire to have better water access, which would free their time to be engaged in income-generating activities.

Solar powered water desalination was apparently implemented by the Ministry of Mines and Energy in some villages and women were keen on this technology being replicated in their areas. The big issue identified was plant maintenance, and in particular occurrence of (typically) young male trainees leaving the village after they received the skills.

Thus, it is proposed to explore this idea further, with the desalination plants designed to be run and maintained by older women. Potential collaboration with Barefoot College should be explored. Also, design of a cross country project including both Rote Ndao Island and sites in Timor-Leste, where freshwater availability is also a big issue, should also be explored. Further, women could be organized into a group for potential livelihood development in their free time (based on market possibilities).
- **Improving seaweed production:** seaweed is farmed by both women and men – though they farm separately. Consultation identified need for better techniques to deal with water stagnation, disease problems, availability of good quality seedlings and varieties, pathways to the market, and processing as potential activities for the project.

Also, the Aecom team become aware of a potential collaborative project funded by ACIAR and developed by James Cook University in collaboration with the Hasannudin University of Makassar (“Improving seaweed production and processing opportunities in Indonesia”, ACIAR FIS/2015/038), looking at some of the issue identified by villagers.

The main shortcomings and risks of this activity are already high market penetration of seaweed farming and potential for market saturation, impacts of farming on ecosystems and the environment in general, competition between seaweed farming and other uses, and in particular competitions with the tourism discussed below.
- **Easing the conflict between seaweed farmers and tourism operators:** Tourism is growing on Rote island, where 90% of the people farm seaweed, resulting in a growing conflict over the use of marine space. One community, Nemberala, requested specific support facilitating the designation of space for each.
- **Preventing erosion through mangrove restoration and sand mining limitation.** This idea is the least developed (as we didn’t visit communities with this specific problem, though we heard about it at the district level. To limit mangrove cutting to get to the sand, this activity will have to find (a) alternative sources of sand for concrete and (b) alternative activities for local sand miners.

Other ideas discussed with communities and district-level stakeholders included:

- Assessment of mangrove species, area, habitat and destruction rate (maybe in collaboration with the Bappeda Environmental program on mangrove replanting and cemara planting in Ndao Nuse to address storm problems)
- Mangrove: illegal logging , reporting to forest police
- Assessment of sand mining potential: area, stocks
- Integrated patrols and strengthen PokmasWas (community based patrols)
- Papadak : traditional law on land to be implemented on the marine area
- Seaweed seedlings bank in Rote Ndao, South West
- Marine Zoning regulation
- Signage for boatways, agreement among communities on parking plot for boats
- Coordinate with Badan bencana
- Information sharing through HP-text message
- Awareness-raising via communication campaigns on pollution control, climate change and protecting the marine environment

Box 1. Activities identified as potential social inclusion or women’s activities and discussed with national level stakeholders

- 1. Mangrove rehabilitation and related activities, such as**
 - Mangrove conservation and Awik-Awik (traditional law) formulation in order to promote sustainable fisheries management
 - Developing a “Go Green” programs in coastal areas
- 2. Coastal small businesses, such as**
 - Innovation in seaweed production, processing, and marketing
 - Developing processed fish products including fish drying, shredded fish, meatballs etc.
 - Improving salt farming practices
 - Fish powder, fodder and oil using fish waste
 - Developing supply chains “from bait to plate” for sustainable seafood
 - General small business management training and grants
- 3. Ecotourism, such as**
 - Bird watching and mangrove ecotourism
 - Reducing aggressive marine life extraction practices
 - Shell handicraft production and marketing
 - Community-based marine ecotourism management training
- 4. Communications, education and awareness programs (“socialization”), such as**
 - Youth marine eco-learning
 - Science communications training for district level DKP staff
 - Media communications on sustainable fisheries management
- 5. Monitoring and evaluation projects, such as**
 - Community-Based Surveillance Program
 - Costs and benefits of protecting threatened species
 - Using I-Fish management tool
 - Developing a Vessel Monitoring System and e-Logbook for small scale fisheries
 - MPA community surveillance groups

4.3 PROJECT DESIGN: TARGETED WOMEN'S ACTIVITIES FOR ATSEA-2

The following activities have been designed to complement the Ecosystems Approach to Fisheries Management (EAFM) and Integrated Coastal Management (ICM) components of ATSEA-2. The descriptions below show only a summary of the problem rational and the activity. Full details regarding all of the intervention listed below, including detailed budgets and responsibilities, are provided in descriptions of project activities developed by the PPG team for each activity. These descriptions are provided as a separate annex, Annex A to the project document and hence are not re-attached here.

Activity	Allocated Budget
Strengthening Women’s Forum for Customary Communities, Aru, Indonesia	USD 23,000
Improved access to the market for women-run seaweed farming and/or processing, Rote Ndao, Indonesia	USD 150,000
Business and Financial Management Training for Women-Run Home-Based Businesses, Rote Ndao, Indonesia	USD 54,000
Building Maintenance Skills for Solar Water Distillers, Rote Ndao, Indonesia	USD 100,000
Women’s cooperative for fish post-harvest livelihood improvements, Timor-Leste	USD 75,000
Pilot sustainable fish feed production/sourcing, Timor-Leste	USD 150,000
Drought-resistant home gardens, Timor-Leste	USD 100,000

Risks

A number of risks exist, and many of them are project-specific (further specified in project activity descriptions, Annex A to the project document). However, the high opportunity cost for households, and in particular for women, of participation in any community activity has been identified as the key risk. Where women do participate in community level activities, for the most part, they either need to complete domestic tasks beforehand or a daughter in the household must take on their tasks – potentially missing school as a result.

For Timor-Leste in particular, given high fertility levels and typically high numbers of dependent children in each household, it is recommended that some form of organized child-minding accompany the proposed activities. A project currently under development by UNICEF Timor-Leste promoting community play-groups has been identified as a potential partner in child-care. It is highly recommended that all on-ground women’s activities proposed by this project collaborate closely with the UNICEF initiative.

The following activities have been designed to complement the Ecosystems Approach to Fisheries Management (EAFM) component of ATSEA-2:

Strengthening the Forum Perempuan Masyarakat Adat Aru (*Women’s Forum*)

Kabupaten Aru Archipelago, Indonesia

Proposed Budget: 23,000 USD

Proposed implementer: PMU with the Perempuan Masyarakat Adat Aru

Problem Identification and Rationale:

Customary institutions play a significant role in managing Aru’s fisheries and other coastal and marine resources. While women rely heavily on coastal and marine resources, they lack position in customary institutions and thus have less opportunity to advocate for their needs. This propagates a poor understanding of women’s use of the resource and their rights to do so, with consequences for the household budget and sustained livelihoods.

Regarding coastal and marine zoning, the customary institutions (*Marga*) often rent the marine area to the private sector – who reportedly then tend to forbid women from collecting resources from the shoreline (women mostly do subsistence food gathering). Typically, payment from the renter is distributed by

village leadership to all households, regardless of prior resource use and thus different losses incurred by different households, and without prior discussions with the community. Further, *Marga* leadership includes no women and hence their resource uses (and consequent losses) are not taken into account when making renting decisions.

Climate change is forecast to result in reduced availability not only of open water marine resources, but in particular of coral reef and coastal marine resources, on which women's activities are mainly based. Strengthening communication and collaboration between men and women in the community has a potential to lead to better understanding of current activities and thus potential impacts of change on the entire resources base. Better collaborations could also lead to increases in the community social capital overall, facilitating development of the holistic, more widely beneficial adaptation solutions. Thus, as part of a more holistic approach to addressing poverty and promoting sustainable fisheries management, this activity will endeavor to promote the involvement of women in decision making regarding coastal and marine management.

Proposed Intervention:

The goal of this activity is to enable women to have a better position in the customary coastal management institutions, participate in the decision making process and advocate for women's rights in coastal and fisheries management.

The forum *Perempuan Masyarakat Adat Aru* was established in 2015 and has activities focused on raising awareness about women's rights regarding the use of resources and current practices. The Forum is a women's group that meets in Dobo, the capital of Aru Islands district. Members are women from each of the sub-districts. The organization still requires further strengthening to improve organizational management, to enhance their skills regarding marine and coastal resource management in the face of climate change, and to support them to integrate their activities in the wider coastal management context. This project will:

- Enhance the existing forum's skills in organizational management, natural resource management and climate change adaptation, through participation in the planned socio-economic vulnerability study planned under Component 1 of the project.
- Facilitate women from at least 5 communities to participate consistently in the forum and report back to women in their communities.
- Funding will be provided to facilitate semi-annual meetings for the duration of the project and to support the Forum to engage with the customary communities' decision-making bodies in at least 5 communities.

After three years, the forum is expected to be self-sustained.

Women's cooperative for fish post-harvest livelihood improvements

Southern Coast, Timor Lest

Proposed budget: 75,000 USD

Proposed implementer: Local NGO

Problem Identification and Rationale:

Many households in the ATS region have limited resources and capacities, and local communities remain highly vulnerable to the effects of climate change. This is exacerbated by the fact that these communities have few alternatives to access alternative incomes. The vulnerability of the coastal communities in the region to climate change could further increase owing to maladaptive responses that cause further environmental degradation.

This project therefore proposes to explore livelihood activities that increase adaptive capacity of women and thus their communities, by proposing activities less susceptible to climate change or activities that are less reliant on vulnerable natural resources, such as home-based small business activities, described here.

Proposed Intervention:

To address the predicted effects of climate change on the coastal communities through livelihood diversification, the proposed intervention will raise the capacity of women to engage in small-scale fish processing businesses. This will be achieved through provision of fish processing and business skills training to women in the selected communities. Home-based small-businesses are a culturally accepted addition to the household budgets, and are predominantly women's responsibilities. Establishment or improvements to small-businesses is proposed as one of the livelihood options proposed by this project. This activity will aim to build the capacity of women to engage in livelihood activities not entirely dependent on natural resources and thus strengthening their resilience to impacts of climate change while reducing pressure on marine and coastal resources.

The design of all project-related on-the-ground interventions will follow a participatory approach. As a part of this approach, a women's group will be formed (or strengthened where it already exists) in each community and will be actively engaged in decision making and monitoring of all activities funded in their community. These women's groups will also serve as the key delivery mechanism for the present activity. This approach is expected to promote 'buy-in' and ownership of the project's activities by local communities, contribute to the long-term sustainability of the project's outcomes.

The skills training will start with the pre-assessment of the context and current status. The actual training will be delivered in two parts: the first focusing on the technical fish processing skills (as identified by the community as desirable), and the second focusing on business and financial skills. The participants are expected to be able to identify a market, make a plan, establish pricing, and understand market principles. The training will also focus on financial management, delivering a simple explanation of household finance, basic accounting, savings and income/family budget.

These initial trainings will be followed by mentoring for the duration of the project. The trainer will monitor progress of the participants on a regular basis, and will provide further targeted training and advice, as required. For women willing and ready to move to the next step but without the means to get the business idea started, the project will provide seed money to support women with well formulated business ideas.

Pilot sustainable fish feed production/sourcing

Southern Coast, Timor Lest

Proposed Budget: 150,000 USD

Proposed Implementer: WorldFish/ Local NGO

Problem Identification and Rationale:

Extremely low fish protein consumption has been identified as one of the priority areas for interventions in Timor-Leste. Projected climate change impacts are likely to create increasing pressure on Timorese fisheries, and thus aquaculture is being promoted as a sustainable way to increase food security of coastal communities vulnerable to the effects of climate change. This is because such communities rely strongly on livelihoods that will be negatively affected by projected changes in regional climatic conditions, such as increase in length of dry season, increased intensity of rain and wind events, and higher temperatures. The vulnerability of communities in Timor-Leste to climate change will further increase owing to maladaptive responses that cause further environmental degradation. Poor harvests will likely result in increased efforts on communal areas, such as increase in fishing effort, reef and shallows gleaning, and use of mangrove. Although aquaculture developments are underway, they all rely on imported and rather expensive feed, the cost of which is hampering financial viability of these enterprises. This project therefore proposes to pilot local production of affordable fish feed.

Proposed Intervention:

Aquaculture, in particular milk fish and mud crab farming, is seen as one of the sustainable ways to increase adaptive capacity of the coastal communities to climate change. Several donor projects have engaged in the aquaculture developments, including setting of a milk fish and mud crab hatchery and a number of pond developments. However, one hurdle identified by fish-farmers is the price of feed, currently imported and purchased at the price hindering profitability of the enterprises. This activity thus proposes to explore the feasibility of the aquaculture feed production in Timor-Leste.

Commercial company Kmanek Trading, in collaboration with Market Development Facility (MDF), has conducted a pre-feasibility study on animal feed. The pre-feasibility study mainly concentrated on chicken and pig feed, but also briefly assessed feed for aquaculture. Overall, the study indicates a high demand for animal feed in the country. However, the study also identifies two main obstacles for the business development: 1) lack of continuity of raw materials supply, as raw materials mainly come from agricultural production and thus are only seasonable available; and 2) lack of food certification in the country. World Fish is currently undertaking a study of the possibilities for aquaculture feed.

Building on the work of WorldFish, the proposed intervention would further explore aquaculture feed potential, including raw materials and overall business viability. Although not necessarily financially viable as a commercial enterprise, aquaculture feed production might be successfully developed as a supplementary activity for the community group. The present activity will implement the recommendations of the WorldFish study in order to pilot local production of fish feed in a community that is already undertaking aquaculture activities. This activity will be developed as a women's activity. Increasing women's capacity to generate cash would not only bring direct benefit through improvement of family's quality of life, but will also play an important role in establishing a respected and empowered position for women both within the household and in the community.

The following activities have been designed to complement the Integrated Coastal Management (ICM) component of ATSEA-2:

Drought Resistant Home Gardens

Southern Coast, Timor-Leste

Proposed Budget: 100,000

Proposed Implementer: MercyCorps

Problem Identification and Rationale:

Most households in Timor-Leste have limited resources and low food security, and local communities thus remain vulnerable to the effects of climate change. This is because such communities rely strongly on livelihoods that will be negatively affected by projected changes in regional climatic conditions, such as an increase in the length of the dry season, increased intensity of rain and wind events, and higher temperatures. The vulnerability of communities in Timor-Leste to climate change will further increase owing to maladaptive responses that cause further environmental degradation. Poor harvests will likely result in increased efforts on communal areas, such as increase in fishing effort, reef and shallows gleaning, and use of mangroves. This project therefore proposes to explore livelihood activities that increase adaptive capacity of women and thus their communities, either by proposing activities less vulnerable to climate change, such as drought-resilient home gardens described here, or activities that have lesser reliance on vulnerable natural resources, such as home-based small business activities, described elsewhere.

Proposed Intervention:

To address the anticipated effects of climate change on the coastal communities, the proposed intervention will raise the capacity of women in selected communities to garden in water-scarce

conditions. This will be achieved through the implementation of agricultural practices that allow for gardening in drought conditions, such as keyhole or bottle gardens. Home gardens are a common addition to the main cropping areas of most rural households in Timor-Leste, and are predominantly women's responsibility. Establishment or improvements to home gardens will be proposed to the communities as one of the livelihood options proposed by this project.

As a result, the interventions will improve agricultural productivity and consequently strengthen the livelihoods of local communities. These alternative livelihoods will alleviate the demands and stress currently posed on other coastal resources.

Furthermore, the design of on-the-ground interventions will follow a participatory approach. In particular, the proposed project will facilitate the involvement of local communities in selecting interventions that are tailored to their specific conditions. As part of the ICM implementation, women's group will be formed in each suco/ aldeia involved and will be actively engaged in decision making and monitoring of all activities funded in their community. This approach will promote 'buy-in' and ownership of the project's activities by local communities. This will contribute to, in the long-term, sustainability of the project's outcomes. In addition, the sustainability of the project will be further facilitated by establishing collaborative relationships with relevant partners such as local NGOs and MAF extension officers at the sub-national level.

Both food quality and quantity have been identified as barriers to improvement in quality of life of vulnerable people in Timor-Leste. Home gardens will consist of a variety of fruit and vegetables that will increase both quality of the diet as well as food security. The establishment of the home gardens will be accompanied by a community outreach campaign. During this campaign, local communities will be sensitized concerning the objectives, benefits and practical implementation of the project's activities in an appropriate language and format.

Improved Access to the Market for Women-Run Seaweed Growing and/or Processing Enterprises

Rote Ndao, Indonesia

Proposed Budget: 150,000 USD

Proposed Implementer: JCU Australia and UNHAS Indonesia

Problem Identification and Rationale:

The proposed intervention will strengthen the capacity of women (and men who are intrinsically involved in seaweed farming, e.g., through family and/or community association) to increase market sales and cash revenues from existing seaweed production. This will be achieved through provision of processing, packaging, and market access skills training, including basic business and financial management training, to women already involved in seaweed farming. Anticipating the effects of climate change in Rote Ndao, this activity will assist households to partially move away from a reliance on climate-susceptible coastal and marine natural resources, thus reducing vulnerabilities.

The goal of this intervention is to improve the capacity of women involved in seaweed farming to produce value-added products and to increase their access to markets. The activity will start with an assessment of the context and current status (current levels of production, calendars, pricing, pathways to the market, skills, potential markets available including local tourism enterprises etc.). A possible activity under this intervention could involve women in Rote Ndao visiting (or be visited by) experienced women's groups who are already producing and selling value-added products incorporating seaweed, to exchange ideas and experiences. Recommendations on the 'way forward' will be made by service

providers and will be discussed collaboratively with women concerned. Based on the needs identified and agreed topics, women on Rote Ndao will receive training (by service providers, assisted by members of selected women's groups) on relevant processing and market access aspects. The Rote Ndao participants are expected to be able to, by the end of the training, handle processing and packaging, understand health regulations and compliance, make basic financial plans, establish pricing, and understand the market.

The design of all project-related on-the-ground interventions, including this one, will follow a participatory approach. As a part of this approach, women's groups will be formed (or strengthened where they already exist) in each community involved in project-related interventions and will be actively engaged in decision making and monitoring of activities funded in their community. Women's groups will also serve as the key delivery mechanism for this intervention. This capacity building approach will promote 'buy-in' and ownership of the project's activities by local communities. This will contribute, in the long-term, to sustainability of the project's outcomes. In addition, the sustainability of the project will be further facilitated by establishing collaborative relationships with relevant partners at the national and sub-national level.

Seaweed processing and sales are a culturally accepted way for women to contribute to the household budgets. Local communities will be sensitized concerning the objectives, benefits and practical implementation of the project's activities in an appropriate language and format. As men in Rote Ndao are often also involved in seaweed farming (though not processing), particular attention will be paid to sensitizing men about the benefits of the activity and ensuring understanding of the benefit for the whole community.

Proposed Intervention:

The marine resources and ecosystems of the Arafura and Timor seas (ATS) are at risk. Many of the region's fisheries are over- or fully exploited. Poorly managed or unmanaged extraction of fish, prawns and other biota, coupled with other pressures such as pollution and disease, has led to a decline in living resources within some areas of the ATS.

Climate change is further exacerbating this situation. 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 change. Climate change is predicted to alter the coastal environment of the ATS region in many ways, including increases in annual air temperatures and rainfall; heat wave duration; sea surface temperatures; sea level rise; ocean acidification; and the inter-annual variability of the Asian monsoon, as well as decreases in annual potential evaporation. These changes will threaten lives and livelihoods both in the waters and on the coasts. Development projects designed for the ATS region thus need to be cognizant of changing climatic conditions, in particular when addressing food insecurity and fresh water availability.

With many households in the ATS region having limited resources and capacities, local communities remain highly vulnerable to the effects of climate change. This is exacerbated by the fact that these communities rely strongly on livelihoods that are predicted to be negatively affected by projected changes in regional climatic conditions, such as increased intensity of rain and wind events restricting access to the fishing grounds, and higher sea temperatures resulting in alteration of marine ecosystems, coral communities and fish distribution. The vulnerability of the coastal communities in the region to climate change could further increase, owing to maladaptive responses that could cause further environmental degradation.

Seaweed farming has a potential to address food security and contribute to cash generation under the climate changing conditions. Seaweed represents an alternative and robust crop since they respond well to ocean acidification and some strands (e.g., red seaweed) can tolerate high CO₂ levels. While seaweed is farmed extensively in Rote Ndao, at present, local seaweed farmers are not taking full advantage of the

potential value-added of seaweed processing given the restricted market access. This project therefore proposes to explore livelihood activities that are relatively resilient to climate change and that increase adaptive capacity of women and thus their communities.

Business and Financial Management Training for Women-Run Home-Based Businesses

Rote Ndao, Indonesia

Proposed Budget: 54,000 USD

Proposed Implementer: Local NGO

Problem Identification and Rationale:

To address the predicted effects of climate change on the coastal communities through livelihood diversification, the proposed intervention will raise the capacity of women to engage in small-scale business. This will be achieved through provision of business skills training to women already involved in small business or those who have already received a specific technical training but limited business skills training. This activity will aim to build the capacity of women to engage in livelihood activities not entirely dependent on natural resources and thus strengthening their resilience to impacts of climate change while reducing pressure on marine and coastal resources.

The design of all project-related on-the-ground interventions will follow a participatory approach. As a part of this approach, a women's group will be formed (or strengthened where it already exists) in each community involved in all project-related interventions and will be actively engaged in decision making and monitoring of all activities funded in their community. These women's groups will also serve as the key delivery mechanism for the present activity. This approach is expected to promote 'buy-in' and ownership of the project's activities by local communities, contribute to the long-term sustainability of the project's outcomes. Sustainability of the project results will be further facilitated by establishing collaborative relationships with relevant partners such as local NGOs and government officers at the sub-national level within Rote Ndao.

The goal of this intervention is to improve the capacity of villagers, especially women actors, in managing their small scale business. The business skills training will start with the pre-assessment of the context and current status. The actual training is estimated to be delivered in 5 days. The participants are expected to be able to make a plan, establish pricing, and understand market principles. The training will also focus on financial management, delivering a simple explanation of household finance, basic accounting, savings and income/family budget.

These initial trainings will be followed by mentoring for the duration of the project. The trainer will monitor progress of the participants on a regular basis, and will provide further targeted training and advice, as required. For women willing and ready to move to the next step but without the means to get the business idea started, the project will provide seed money to support women with well formulated business ideas.

Home-based small-businesses are a culturally accepted addition to the household budgets, and are predominantly women's responsibilities. Establishment or improvements to small-businesses is proposed as one of the livelihood options proposed by this project.

This training activity will be accompanied by a community outreach campaign in line with other project ICM activities, and facilitated by the multi-stakeholder ICM committee envisaged in the target areas. During this campaign, local communities will be sensitized concerning the objectives, benefits and practical implementation of the project's activities in an appropriate language and format.

Proposed Intervention:

Many households in the ATS region have limited resources and capacities, and local communities remain highly vulnerable to the effects of climate change. This is exacerbated by the fact that these communities rely strongly on livelihoods that could be negatively affected by projected changes in regional climatic conditions, such as increased intensity of rain and wind events restricting access to the fishing grounds, and higher sea temperatures resulting in alteration of coral communities and fish distribution. The vulnerability of the coastal communities in the region to climate change could further increase owing to maladaptive responses that cause further environmental degradation.

This project therefore proposes to explore livelihood activities that increase adaptive capacity of women and thus their communities, by proposing activities less susceptible to climate change or activities that are less reliant on vulnerable natural resources, such as home-based small business activities, described here. By engaging communities in alternative, resilient livelihoods, it will also take pressure off marine resources and potentially limit efforts in destructive maladaptive actions.

Building Maintenance Skills for Solar Water Distillers

Rote Ndao, Indonesia

Proposed Budget: 100,000 USD

Proposed Implementer: Ministry of Energy and Mineral Resources and a Local NGO

Problem Identification and Rationale:

Anticipated effects of climate change on Rote Ndao Island include longer dry seasons, with the shorter more intense and erratic wet seasons. Such predictions would further exacerbate fresh water shortages and hence, increase water-related vulnerabilities in the coastal and small island communities.

During stakeholder consultations, fresh water access and shortage was identified as a significant issue in every community visited on Rote Ndao Island. Women are particularly affected by water shortages as water collection is their traditional responsibility, and they spend considerable amount of time every day gathering water. During the community consultations women expressed desire to have better water access, which would free their time to engage in income-generating activities.

Solar powered water desalinization units have been installed by the Ministry of Energy and Mineral Resources in a number of villages on the island and women were keen on this technology being replicated in other areas. However, in the villages with the desalinization units, plant maintenance was described as a significant issue. Specifically, communities reported that it is typically young males who receive the operations, servicing and maintenance training; and that these trainees tend to leave the village after receiving the training, leaving community without the relevant skills and hence vulnerable to malfunction of the units. Older women are deemed least likely to leave the village, and hence are seen as the most reliable group within the community to receive the training.

Proposed Intervention:

The proposed intervention aims to raise the capacity of women in selected communities to operate, service, and maintain solar-powered desalinization units. It is proposed that this intervention is carried out in concurrence with government-led activities, and particularly focuses on supporting training of the middle-aged and older women in the servicing and maintenance of the units. Older women are deemed least likely to leave the village, and hence are seen as the most reliable group within the community to receive the training.

Design of on-the-ground interventions for this project will follow a participatory approach. This approach will promote 'buy-in' and ownership of the project's activities by local communities,

contributing to the long-term sustainability of the project results. Sustainability will be further enhanced by establishing collaborative relationships with relevant enabling partners such as local NGOs and government officers at the national and sub-national level.

4.4 BROADER RECOMMENDATIONS FOR MAINSTREAMING GENDER AND SOCIAL INCLUSION

A number of relevant cross-cutting issues were identified as pertinent for the success of gender activities in this project and gender mainstreaming in general. Key ones are discussed in sub-sections below.

Stakeholder engagement

Development projects operate in an arena filled with various types of stakeholders, from international agencies, to international and national NGOs, national and lower-level government departments and agencies, and the communities. These stakeholders play a variety of roles, those of donors, implementers, legislators, evaluators, intended project beneficiaries. To understand these complex interactions, and to provide the project with the best pathways to success, stakeholder engagement should be a cornerstone of every proposed development project.

Therefore it is highly beneficial for this project that an engagement and communications strategy is being developed during the project design stage. The stakeholder engagement plan, with specific details of objectives, targets, budgets and timelines, should consequently be developed in the earliest stages of project implementation, and should be implemented throughout the project stages.

Multi-level multi-site complex nature of this project will likely require dedicated budget and staffing for this role.

Gender awareness and training

Awareness of gender issues and principles of gender mainstreaming should be provided to all involved in the project design and implementation.

Gender training needs to start with the project development team, sensitizing them and rising their awareness in terms of what gender mainstreaming is and how the process of gender mainstreaming is going to be implemented and incorporated in the Project document preparation.

As implementing agency, UNDP should provide gender training not only to all the staff, but also to all consultants engaged for the purpose of the project. The UNDP gender focal point should be involved in the selection of candidates, in particular those for the implementation phase of the project (Regional Project Management Unit or RPMU). Although gender training of the RPMU and national coordinator units (NCUs) team members is increasingly common, this is one of the areas that needs to receive further effort in the future.

Further, government agencies in Indonesia, Papua New Guinea, and Timor-Leste have a mandate to mainstream gender in their main planning and implementation agencies. This requirement should be actively supported by the RPMU, providing training materials and similar to all relevant agency staff.

Integrated approaches to design

Climate change is a complex problem, further compounded by the complexities of the societies it impacts. Complex problems require complex solutions and thus projects designed in this area need to adopt a more integrated approach, should they hope to succeed in the longer term.

Components of the project design are intrinsically linked. They are linked in terms of scale, from regional, to national to the communities; but also in terms of a complex multifaceted scope of the project. They are

also linked on a temporal scale, where current projects need to be designed so they can withstand the challenges of future changes, to the climate or social fabric.

In the context of this project, moving people away from biodiversity-damaging livelihoods will require the design of new or improved livelihoods. Such designs need to address not only technical requirements (such as improved seaweed varieties) but also natural (such as scarcity of water), social (capacity to run a small business), economic (linkages to the market) and institutional (land ownership and availability), requirements.

Long term sustainability of interventions

Development practice provides ample examples of adoption rates dropping and interventions winding down after the end of the project. Two main reasons can be put forward here. First, project implementation stages are too short and thus do not allow for establishment of viable change/business development. Second, there is often no clear ownership of the project at start (i.e. projects are ‘dumped’ on communities with little to no prior consultation as to their needs, interests, capacities and aspirations) nor clear hand-over strategy at the end (i.e. projects are ‘handed-over’ to relevant ministries or line agencies with little to no prior consultation as to their needs, interests, capacities and aspirations). Both communities and institutional stakeholders have pointed to the lack of long-term sustainability as their main concern in getting engaged with any project. Strategies for long-term sustainability of the projects thus require considerable attention, particularly when proposing non-income generating activities such as biodiversity or illegal fishing monitoring and reporting.

Community / human capacity

Human capacity, in particular in PNG and Timor-Leste, is very low. In view of this, and other above mentioned concerns and observations, a long-term approach to the development of the capacity is needed. In practical terms, livelihood activities are more likely to succeed in areas that have received prior assistance and thus have capacity to engage, such as human capital, organizations, previous training. It is well acknowledged that building of the capacities of communities on the southern coast of Timor-Leste, in Fly District of PNG and in far-east districts of Indonesia will require a long-term concentrated effort, and thus projects proposing to operate in this area need to be realistic about what can be achieved within the proposed project time.

Also, low capacities require greater efficiencies, and building on existing projects (for example, by value-adding or creating pathways to markets for existing seaweed projects) should be preferred to new differing interventions. Examples of livelihoods projects failing because several business steps and relevant skills are missing from the project design are ample. Further, both ours and findings of the UNDP Social Business Unit (UNDP, 2015) confirm that capacities of women to engage in businesses are very low. Therefore, developing business skills (basis project management, financial management and communication skills) and creating linkages along the business development steps, is of even greater relevance to projects that propose to engage women.

Cross-pollination should also be encouraged within the project, with various activities leading towards a common goal in the community. Further, capacity building can be encouraged through opportunities to share experiences across communities and between countries, in form of field visits, training, exchange of experiences and ideas.

4.5 MONITORING AND EVALUATION

The specific gender considerations that need to be incorporated in the overall project design and implementation are expected to result in:

- Increased project awareness

- Promotion of cultural and gender awareness, both internally (project team and UN agencies) and externally (other stakeholders)
- Skills development, both internally and externally
- Implementation of women-specific livelihood activities and associated benefits
- Promotion of women's involvement in planning and governance at community level
- Strengthening of women's involvement in planning and decision making at national and sub-national levels
- Ensuring gender inclusion in project implementation and monitoring

In addition, project interventions are often expected to create financial benefits. Caution is needed however, as short-term financial benefits do not necessarily translate into long-term benefits; and do they necessarily create other types of benefits. Therefore, M&E framework should be capable of capturing a whole range of short and long term financial and non-financial economic, social and cultural impacts, both costs and benefits, and their distributions. Although this is of importance to all types of projects, it is of particular relevance to women's activities where engagement in projects might have considerable social and cultural costs (i.e. negative impacts on family life and cultural obligations); or might have significant additional labor costs on women; yet might bring little benefit to her or the family (if money is spent on gifts or inappropriately). As increased financial gains do not necessarily translate into increased economic or wider benefits, it is important to capture how the extra cash is generated through the project intervention (if any), distributed and spent within the family/household.

In order to have a meaningful M&E process, it is recommended that implementation of the activities starts within the first year of the project, so that there is sufficient time to accrue benefits.

Project performance, management and monitoring will include gender disaggregated data, information, and indicators, in order to allow for evaluation of the progress in relation to social development and gender. Gender-specific target indicators are included in the Gender Action Plan (Appendix A). In addition, the design and monitoring framework developed for the purpose of this project includes gender disaggregated outcome-levels indicators (please refer to Project document for full details).

Agencies such as UN have a capacity for long term monitoring due to their long term presence in countries (through for example UNDP M&E Unit rather than the RPMU). Therefore, monitoring should be extended well beyond the life of the project.

4.6 IMPLEMENTATION ARRANGEMENTS

Specific suggestions for implementing organizations are provided for each gender activity described in Section 4.3, and can also be found in descriptions of project activities (project document Annex A). The key selection criterion for implementing partners is demonstrated experience in implementation of gender specific activities in the proposed region. Sectoral experience with fisheries and/or aquaculture is not required but is desirable.

Implementation will proceed in collaboration with the relevant line Ministries in each country. Primary responsibility for implementation of gender activities remains with the Regional Project Management Unit (RPMU) and the National Coordination Units (NCUs) set for the purpose of this project, and the relevant personnel.

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APPENDIX A GENDER AND SOCIAL INCLUSION ACTION PLAN

The following gender action plan (GAP) is a first draft that should be updated at project inception and every year thereafter. The Gender Equity and Social Inclusion Coordinator (GSIC) is generally responsible for the implementation, with other task leaders responsible for fulfilling key actions that pertain to their area of work. This GAP is organized in two sections: (A) Overall Project Implementation, that is, requirements for all of the project activities in all three countries; and (B) Specific additional requirements for women's activities. Section (B) should be perused with the descriptions of project activities, Annex A of project document.

Output	Activities	Target Indicators	Budget*	Responsibility
A. Project Implementation Overall / All Activities (Indonesia, Papua New Guinea and Timor-Leste)				
Increasing project awareness	<p>Ensure balanced representation of both genders in all consultation forums.</p> <p>Organize separate consultations with women prior to and during project implementation to ensure that they receive sufficient information about the project and create opportunities for them to voice their views, needs and preferences with regard to the project.</p> <p>Information campaign about the project (in local language and not reliant on written materials) developed as to outline the benefits for both men and women.</p>	<p>50:50 representation target</p> <p>Separate consultations completed for each project activity (% completed)</p> <p>Campaign developed (Y/N)</p> <p>Number of campaigns conducted</p>	<p>No additional cost</p> <p>Budgeted in relevant components, no additional cost</p>	<p>RPMU and GSIC with assistance from UNDP gender specialist and RPMU and NCU team members</p> <p>National coordinators, site mobilizers</p>
Promoting gender awareness	<p>Gender awareness training will be implemented by RPMU gender equity and social inclusion coordinator and will need to be completed by all RPMU and NCU members and consultants.</p> <p>Training will also be conducted, when required, in order to raise gender awareness among staff of the implementing agencies, contractors, town leaders,</p>	<p>Training developed (Y/N)</p> <p>Number of people / organizations trained</p>	<p>No additional cost for training in Bali</p>	<p>RPMU and GSIC with assistance from UNDP gender specialist</p> <p>National coordinators, site</p>

Output	Activities	Target Indicators	Budget*	Responsibility
	<p>and project area residents.</p> <p>Conduct workshops with the project staff to ensure they are able to detect, intercept, respond to and prevent (or refer cases) of sexual harassment, gender based violence and other problems that may emerge during project implementation</p> <p>Information campaigns about the project will be developed that incorporate messages outlining the benefits for both men and women.</p>	<p>All project staff trained</p> <p>Campaigns developed (Y/N)</p> <p>Number of campaigns implemented using suitable modes of delivery</p>	<p>No additional cost</p> <p>Budgeted in relevant components, no additional cost</p>	<p>mobilizers</p>
Skills development	<p>Equal pay will be provided to men and women for work of equal type in accordance with national laws and international treaty obligations, and safe working conditions for both men and women workers will be provided. Specific provisions for the above will be included in the bidding documents and project covenants.</p> <p>RPMU and NCUs will provide equal employment opportunity for men and women.</p> <p>The RPMU will be responsible for monitoring and review of the targets set for women.</p>	<p>In all cases</p> <p>Aiming at 50:50 target for PIU employees, consultants and contractors</p> <p>Annually and on completion of the project activity (review completed, Y/N)</p>	<p>No additional cost</p> <p>No additional cost</p> <p>No additional cost</p>	<p>RPMU and GSIC</p> <p>National coordinators, site mobilizers</p> <p>Contractors</p> <p>RPMU and GSIC reporting to UNDP gender specialist, monitoring and evaluation</p>

Output	Activities	Target Indicators	Budget*	Responsibility
Implementing livelihood activities	Ensure that selection of the projects to be funded under ICM and EAFM gives preference to projects that specifically bring improvement to women's livelihoods (see specific project components in Part B of this document for further details).	Minimum 30% of approved projects are women's activities/ conducted by Women's Groups % of implemented activities that include gender specific considerations and benefit women % of projects/ activities developed that specifically benefit women	No additional cost	RPMU and GSIC National coordinators, site mobilizers, with relevant RPMU team members and organizational stakeholders
Promotion of women's involvement in planning and governance at the community level	In collaboration with NGOs and the government, the RPMU and NCU's will disseminate leadership and other relevant awareness materials to the communities engaged in the project, with the aim of enabling women and men to be more aware of and active in climate change adaptation related discussions (this activity does not propose development of packages, just dissemination in project areas of existing materials developed by NGOs and government).	Dissemination and delivery strategy developed in collaboration with key providers (Y/N) Numbers of packages disseminated by project % disseminated to women	No additional cost	RPMU and GSIC , National coordinators, site mobilizers UNDP gender specialist, relevant NGOs and government agencies including gender focal points
Strengthening women's involvement in planning and decision making	Ensuring meaningful representation in all governing and decision making bodies (from community/ village committees to district committees) All communities involved in project activities have formed and maintain functional Women's Group, throughout the project implementation phase	Women represented in all decision making forums (Y/N) Women's Groups formed and functional in every community engaged in the project activities (% of communities with the women's group formed) and (% functional)	No additional cost Formation of Women's Groups budgeted in each project activity that involves communities **	RPMU and GSIC with implementing NGOs/ agencies National coordinators, site mobilizers

Output	Activities	Target Indicators	Budget*	Responsibility
Ensuring gender inclusion in project implementation and monitoring	As needed, provide training on gender equality to government staff engaged with the project to improve their understanding of gender concerns and increase their capacity to implement project's Gender Action Plan.	One staff training and at least one training for implementing agencies and contractors (number of training conducted)	No additional cost	UNDP gender specialist with assistance from NGOs if required
	Project performance, management, monitoring and evaluation will include sex disaggregated data and information.	All data for monitoring and evaluation purposes collected disintegrated based on gender and other relevant vulnerabilities (% M&E data collected that is gender and social vulnerability disintegrated)	No additional cost	RPMU and GSIC with UNDP M&E gender specialist
	Feedback mechanism will give equal voice to both male and female beneficiaries.	For all community-based projects, separate focus group discussions or interviews conducted with women to ensure they have an opportunity to voice their concerns/ suggestions during M&E activities (% of communities in which women's FGD conducted at each M&E stage)	At least one annual meeting in each community participating in activities; this item should be funded from M&E budget **	RPMU and GSIC with UNDP M&E and communications specialist National coordinators, site mobilizers

Output	Activities	Target Indicators	Budget*	Responsibility
B. Additional specific requirements for women's activities***				
1. Ecosystems Approach to Fisheries Management (EAFM) demonstration sites:				
Strengthen the Women's Forum Perempuan Masyarakat Adat Aru (in Aru Archipelago)	Enable women to have a better position in the customary coastal management institutions, participate in the decision making process and advocate for women's rights in coastal and fisheries management.	<ul style="list-style-type: none"> - % of consultations and assessments (e.g. EAFM, vulnerability, ICM, coastal zoning, etc.) conducted in Aru District by any organization that incorporate women's and other vulnerable groups' needs, concerns and benefits - % of community customary coastal management institution in Aru that have women representatives - % of community customary coastal management institution in Aru that have women in decision making bodies 	23,000 USD	National Coordinators, and/or Site Mobilizers reporting to RPMU team leader
Establish a Women's cooperative for fish post-harvest livelihood improvements (in the southern coast of Timor-Leste)	<p>Address the predicted effects of climate change on the coastal communities and reduce pressure on coastal and marine resources through livelihood diversification, raising the capacity of women to engage in small-scale fish processing businesses.</p> <p>Fish processing and business skills training for home-based or communal activities conducted in at least 2 climate vulnerable communities in Timor-Leste's southern coast (end of project</p>	<ul style="list-style-type: none"> - Cooperative / Women's group established (Y/N) and maintained (Y/N) - Number of women receiving training for fish processing and market skills - Cash generated per women that completed training, per year (\$) - Wellbeing satisfaction score (from 	75,000 USD	National Coordinators, and/or Site Mobilizers reporting to RPMU team leader

Output	Activities	Target Indicators	Budget*	Responsibility
	<p>target: 40 women).</p> <p>Women's Groups formed, functioning and actively involved in decision making and monitoring.</p>	<p>0 not satisfied at all to 10 very satisfied) of women trained and the community overall with the process (i.e., engagement, respect, responsiveness) and outcomes (i.e. cash generated, time required/burden, improved nutrition).</p> <ul style="list-style-type: none"> - Number of beneficiaries (sex disintegrated data), households and communities with access to improved livelihoods 		
Pilot sustainable fish feed production and sourcing (in Timor-Leste's Southern Coast)	<p>Pilot local production of fish feed in a community that is already undertaking aquaculture activities, as per recommendations of the WorldFish study. Work with the community and other practitioners/experts in the country to design a possible fish feed production line based on the resources available.</p> <p>Provide awareness training about climate resilience and alternative livelihoods, with particular attention on sensitizing men about the value of engaging women in this activity.</p> <p>Provide training on the fish feed development and the financial skills to test viability, followed by learning-by-doing (end of project target: 20 women).</p> <p>Provide ongoing assistance with phasing and incremental changes to practices accompanied by monitoring of the costs and benefits.</p>	<ul style="list-style-type: none"> - Women's Group formed in the participating community (Y/N) and functioning (Y/N). - % of women and % men in the community participating in the awareness training about climate resilience and alternative livelihoods - Number of women trained, through the Women's Group meetings, on the fish feed development and the financial skills. - Cash generated per women that completed training, per year (\$) - Number of post-training visits by project team to the target village, providing ongoing assistance. 	150,000 USD	National Coordinators, and/or Site Mobilizers reporting to RPMU team leader

Output	Activities	Target Indicators	Budget*	Responsibility
		<ul style="list-style-type: none"> - Wellbeing satisfaction score (from 0 not satisfied at all to 10 very satisfied) of women trained and the community overall with the process (i.e., engagement, respect, responsiveness) and outcomes (i.e. cash generated, time required/burden, improved nutrition). 		
<p>B. Additional specific requirements for women's activities***</p> <p>2. Integrated Coastal Management (ICM) demonstration sites:</p>				
<p>Drought resistant home gardens for climate change adaptation (in Posto Administrative Barique, Timor-Leste)</p>	<p>Addressing the anticipated effects of climate change on the coastal communities, the proposed intervention will raise the capacity of women in selected communities to garden in water-scarce conditions. This will be achieved through the implementation of agricultural practices that allow for gardening in drought conditions, such as keyhole or bottle gardens.</p> <p>Establishing at least 20 drought-resilient home gardens in at least 2 communities (end of project target: 40).</p>	<ul style="list-style-type: none"> - Women's Group in the participating communities formed (Y/N) and maintained (Y/N). - % of women and % men in the community participating in the awareness training about climate resilience and alternative livelihoods. - Number of women trained on the drought resistant gardens. - Number of drought-resistant home gardens established and maintained. - Wellbeing satisfaction score (from 0 not satisfied at all to 10 very satisfied) of women trained and the community overall with the process (i.e., engagement, respect, responsiveness) and outcomes 	100,000 USD	<p>National Coordinators, and/or Site Mobilizers reporting to RPMU team leader</p>

Output	Activities	Target Indicators	Budget*	Responsibility
		(i.e. cash generated, time required/burden, improved nutrition).		
Improved access to the market for women-run seaweed farming and/or processing (in Kabupaten Rote Ndao, Indonesia)	<p>The goal of this intervention is to improve the capacity of women involved in seaweed farming to produce value-added products and to increase their access to markets. The direct beneficiaries are estimated to include 20 women in each of four villages and their families (end of project target: 80 women).</p> <p>Context and current status of seaweed production assessed.</p> <p>Existing Women's groups or similar organizations interested in seaweed processing identified, or formed.</p> <p>Interested women from Rote Ndao (maximum of 8) to visit experienced women's groups who are already producing seaweed based products, to see what they have achieved (potentially in South Sulawesi SS). They will also have the opportunity to identify products which they would like to learn how to process and sell.</p> <p>Assist with legalities associated with food production and with compliance with food safety standards; Develop relevant training package on processing, packaging and marketing/sales strategies; Provide necessary equipment and packaging to carry on activities when training has</p>	<ul style="list-style-type: none"> - Women's Group in the participating communities formed (Y/N) and maintained (Y/N) - Number of women receiving training for seaweed processing and market access - Number of women receiving necessary equipment - % of food producing businesses that receive health certification - Cash generated per women that completed training, per year (\$) - Visit of interested women from Rote Ndao (maximum of 8) to an experienced women's groups who are already producing seaweed based products, implemented(Y/N) - Visit of at least 2 experienced processors from elsewhere implemented (Y/N) - Wellbeing satisfaction score (from 0 not satisfied at all to 10 very satisfied) of women trained and the community overall with the process (i.e., engagement, respect, responsiveness) and outcomes 	150,000 USD	National Coordinators, and/or Site Mobilizers reporting to RPMU team leader

Output	Activities	Target Indicators	Budget*	Responsibility
	finished; and Organize visit to Rote Ndao by experienced women from SS or elsewhere to share advice.	(i.e. cash generated, time required/burden, improved nutrition).		
Business and financial management training for women-run home-based businesses (in Kabupaten Rote Ndao, Indonesia)	<p>Explore livelihood activities that increase adaptive capacity of women and thus their communities, by proposing activities less susceptible to climate change or activities that are less reliant on vulnerable natural resources.</p> <p>Business training for home-based small business activities conducted in at least 2 climate vulnerable communities in Rote Ndao, through a learning-by-doing approach (end of project target: 40).</p>	<ul style="list-style-type: none"> - Women's Group in the participating communities formed (Y/N) and maintained (Y/N) - Number of women receiving training - Number of women receiving seed money or necessary equipment - Cash generated per women that completed training, per year (\$) - Number of small businesses established/grown and maintained, disaggregated by gender - Wellbeing satisfaction score (from 0 not satisfied at all to 10 very satisfied) of women trained and the community overall with the process (i.e., engagement, respect, responsiveness) and outcomes (i.e. cash generated, time required/burden, improved nutrition). 	54,000 USD	National Coordinators, and/or Site Mobilizers reporting to RPMU team leader
Solar Water Distillers and Business Skills (in Kabupaten Rote Ndao, Indonesia)	<p>Raise the capacity of women in selected communities to operate, service, and maintain solar-powered desalination units.</p> <p>Identification of all villages on Rote Ndao Island</p>	<ul style="list-style-type: none"> - Number of women receiving training - Number (%) of installed units 	100,000	National Coordinators, and/or Site Mobilizers reporting to

Output	Activities	Target Indicators	Budget*	Responsibility
	<p>where solar-powered desalinization plants have been installed, those interested in taking part in the activity, and the individuals interested to receive training;</p> <p>Training, in collaboration with the Ministry of Energy and Mineral Resources of 3-5 women in 5 villages (end of project target: 20).</p> <p>Mentoring and follow-up, additional training, capacitation and problem solving for the duration of the project.</p>	<p>maintained by women</p> <ul style="list-style-type: none"> - Level of awareness with regards to links between future fresh water availability and climate change– disaggregated by gender (%) 		RPMU team leader

* Budget is based on the assumption that RPMU employs a Gender Equity and Social Inclusion Coordinator.

** All women specific activities and the specific involvements of women are budgeted for in the relevant project components (Outcomes) as they form an integral part of Project Design and Outcomes. Refer to project document Section Project Objectives, Outcomes and Outputs; and Section Total Budget and Workplan.

*** Full details for each women’s activity are provided in descriptions of the project activities, Annex A to the project document.

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ANNEX D: COMMUNICATION STRATEGY

Implementation of the Arafura and Timor Seas Regional and National Strategic
Action Programs (ATSEA-2)



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ACRONYMS

ATS	Arafura and Timor Seas
ATSEA	Arafura Timor Seas Ecosystem Action
ATSEF	Arafura and Timor Seas Experts Forum
CCA	Climate Change Adaptation
IUU	Illegal, Unreported and Unregulated
M&E	Monitoring and Evaluation
NGO	National Government Organization
RPMU	Project Implementation Unit
PEMSEA	Partnership in Environmental Management for the Seas of East Asia
PNG	Papua New Guinea
SAP	Strategic Action Programme
UNDP	United Nations Development Program
USAID	United States Agency for International Development

INTRODUCTION

The present document lays out a communications strategy for successful outreach to stakeholders and knowledge management throughout the life of the Implementation of Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2). The first phase of the ATSEA program was based on a participatory approach, emphasizing country ownership and collaboration of government. The resulting Regional Strategic Action Plan (SAP) and National Action Plans for Timor Leste and Indonesia set a range of engagement and communication guidelines for the ATSEA Phase 2 projects, upon which this strategy is based.

This communications strategy is directly related to Component 3 of the project, specifically Outcome 3.1 *Improved monitoring of the status of the ATS and dissemination of information, (ii) Improved dissemination of information and best practices through a communications strategy, enhanced ATSEA project website, bulletins, publications and videos in English and national languages, and contributions to IWLEARN equivalent to 1% of IW grant.* That being said, the stakeholder outreach and knowledge management facilitated by this communication strategy reaches across all project outputs and activities. The implementation of the strategy will be coordinated by a dedicated member of the Regional Project Management Unit (RPMU), a long-term Knowledge Management Specialist, who will be responsible for ensuring implementation and monitoring throughout the implementation phase of the project. The strategy is designed as a “living document” to be continuously updated and revised throughout project implementation.

This document closely links with the Gender and Social Inclusion Strategy and the requirements set within that document. ATSEA-2 has a strong gender component and aims at achieving gender mainstreaming in its design, management and implementation including the budgeting of specific activities to empower women. Gender analysis has been conducted during the project design stage, and the findings are incorporated into action planning for implementation stage. Other vulnerable groups, such as youth and internal migrants, have also been consulted. Attention will be paid to specific vulnerabilities as well as specific benefits that projects can bring to women and other vulnerable members of society.

COMMUNICATION STRATEGY

I. ATSEA-2 APPROACH TO COMMUNICATION

Knowledge transfer is about using knowledge and understanding generated within the project to stimulate people to think or act differently. The effective transfer of knowledge is vital in order to inform and influence decision-making and policy development, and 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. This process can often be a challenging component of development programs. This Communications Strategy aims to address this challenge and bridge the gap between ATSEA-2 implementation teams that produce knowledge and understanding, and end-users that are in a position to provide a pathway for the successful adoption. 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.

An overarching ATSEA-2 Communication Strategy addresses the following elements of program delivery:

1. Identification of mechanisms and processes for ensuring end-user engagement in the program, and understanding end-user needs and priorities;
2. Development of synthesis and analysis products targeted at end-user needs;
3. Facilitation of co-learning between ATSEA-2 implementation team and key end-users;
4. Establishment of a plan to ensure the ongoing availability of project outputs beyond the life of the project for end-users;
5. Provision of mechanisms to bring team members, policy makers and environmental managers together to facilitate evidence-based decision-making; and
6. Promotion of the ATSEA-2 outputs to end-users and the community.

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. managers, end-users, industry, NGOs, communities). The structure of ATSEA-2 provides a coordinating mechanism in the form of the Regional Coordination Committee and the Stakeholder Partnership Forum, which will build capability in the region by providing opportunities for collaborative multi-disciplinary networks between program, managers and 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 management and decision-making processes.

2. INTENT OF THIS STRATEGY

ATSEA-2 (the program) seeks to provide a supportive environment for the generation of information for policy and decision-making in the region. Achieving this vision will require the Regional Project Management Unit (RPMU) team to establish and maintain partnerships with end-users to facilitate delivery of project results and knowledge that are directly applicable to the issues related to the regional marine and coastal ecosystems.

The overarching objective of the Strategy is to raise awareness of the program findings, and to facilitate the uptake of the findings into management and policy, through:

- Facilitating effective two-way engagement between the program team and end-users where activities are participatory with end-users engaged;
- Delivering timely and targeted information to end-users in forms that are accessible, lead to on-ground responses, and culturally appropriate;
- Providing direct lines for feedback to agencies, industry, NGOs and other community groups through ATSEA-2 and UNDP extensive networks in the region;
- Monitoring and evaluating the success of knowledge brokering and communications activities, such that their efficiency and effectiveness can be increased over time;
- Establishing arrangements relating to data custodianship and other legacy issues so that program outputs are well known and accessible long after the initial funding period;
- Building trust frameworks with end-users for the delivery and exchange of information and to achieve broader acceptance of the validity of the outputs; and
- Increase community ownership of the solutions to the challenges facing the region.

The Strategy seeks to achieve:

1. Enhanced understanding of, and capacity to manage and conserve the ATS regional environment;

2. Timely outputs that are used by policy and decision-makers to answer questions and provide solutions to problems; and
3. Outputs that are communicated clearly to end-users and the general public, and stored in a manner that is easily discoverable and accessible.

3. GUIDING PRINCIPLES

The guiding principles underlying the development and implementation of this Strategy are briefly described here, with details on matching tools, goals and measures of success presented in Annex 1.

BOX 1. GUIDING PRINCIPLES

1. Provide solution-based, actionable information to targeted user groups to inform decision-making
2. Deliver messages in a cost-effective, concise way that utilizes a range of appropriate methods
3. Understand end-user information needs
4. Provide timely information
5. Transfer knowledge within ATSEA-2
6. Facilitate exchange between ATSEA-2 and the policy community

1. Provide solution-based, actionable information to targeted user groups to inform decision-making

The ATSEA-2 RPMU Team Leader, with the support of UNDP and the team, will facilitate the use of ATSEA-2 outputs to influence decision-making and program development in the area of coastal and marine ecosystems management in ATS region. In order to successfully bridge the gap between this program and policy, outputs will be translated into clear and concise products. Information arising from the program will be transformed into formats that make the knowledge accessible for decision-makers at all levels.

Tools: fact and information sheets, contacts database, information briefings, face-to-face stakeholder workshops, media releases, networking events, workshops and conferences

2. Deliver messages in a cost-effective, concise way that utilizes a range of appropriate methods

Products will be tailored appropriately to meet the varying needs of end-user groups. Methods will vary depending on the particular user group. Delivery will target ‘management scientists’ within agencies where available.

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.

3. Understand end-user information needs

Understanding the needs of user groups is essential to a successful program agenda and 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. Regular feedback between the program RPMU and end-users will allow for the evolution of understanding of end-user needs and appropriate delivery to policy and decision-making.

Tools: nurture a participatory program agenda setting environment, encourage community engagement in the project, adaptive feedback to stakeholders, continuous updating of contacts database, policy briefings, Regional Coordination Committee input.

4. Provide timely information

To inform policy successfully and have a real impact, information will be targeted to the right people at the right time. Keeping track of regional and national policy development and key decision-making periods at all levels is vital to the transfer of knowledge. This focus on real life/real time engagement will facilitate knowledge uptake and on-ground responses.

Tools: monitor events and media on the web, social media, distribution of fact and information sheets, workshops, conferences, face-to-face meetings, networking events, policy briefings, and community events.

5. Transfer knowledge within ATSEA-2

Effective knowledge transfer within ATSEA-2 and with UNDP can only be achieved through an active process of transmission and exchange between and among all team members. Promotion and exchange of information within the program will enhance collaborative efforts and facilitate the transfer of knowledge externally.

Tools: website, workshop and discussion forums, Steering Committee meetings, face-to-face meetings, information briefings.

6. Facilitate exchange between ATSEA-2 and the policy community

Knowledge can be effectively transferred through collaborative partnerships and engagement with decision-makers. Participatory and engaged activities with on-ground managers in industry, local and state government, community groups, and NGOs in the development and ongoing day-to-day activities will maximize the value of program outputs. Thus ATSEA-2 will specifically facilitate exchange of knowledge and interactions with the decision-makers, transferring ATSEA-2 program findings directly to the end-user community.

Tools: seminars, focus workshops, working groups, conferences, online discussion forum, Steering Committee meetings, policy briefings, face-to-face meetings, short videos

4. FACILITATING MECHANISMS

Effective knowledge brokering and communication requires employment of several mechanisms for sharing and disseminating knowledge from the ATSEA-2 program. The mechanisms that can be applied to successfully engage people across different networks are summarized below.

BOX 2. FACILITATING MECHANISMS

1. Building on existing relationships and networks
2. Facilitating new relationships and networks
3. Knowledge brokering and synthesis
4. Using media to extend program findings
5. Clear responsibilities

1. Building on existing relationships and networks

ATSEA-2 communication activities will utilize existing relationships, systems and dissemination networks where these are available. The ATSEA-2 will build trust frameworks with end-users for the delivery and exchange of information and to achieve broader acceptance of the validity of the program. Given that ATSEA-2 program will operate over several regions, and on several levels, each serviced by a government agency with legislated authority, the key to uptake into decision-making will be effective engagement mechanisms and the generation of useful knowledge. Each of these agencies has their own communication mechanisms to reach relevant stakeholders. The ATSEA-2 will build on these relationships and provide knowledge and products to these networks. There will be also a strengthening of existing ties through less formal mechanisms to other regional stakeholders and end-users that are also target audiences for the program outputs. These include (but are not limited to) other agencies, industry bodies, NGOs and communities.

2. Facilitating new relationships and networks

As well as building on existing networks for engagement and knowledge transfer, new relationships and networks will be facilitated between program and end-users through a range of ATSEA-2-wide and project-specific mechanisms. Direct lines for feedback between the ATSEA-2 and agencies, industry groups, NGOs and other community groups through extensive networks will maximize the relevance of outputs. All activities will be planned and undertaken in the context of achieving the ATSEA-2's communication objective of increasing the potential for uptake and influence of science into policy and decision-making.

3. Knowledge brokering and synthesis

During the life of the ATSEA-2, the focus of activities will shift from relationship building between program and end-users to knowledge synthesis and transfer. The latter will be supported by cost-effective communication initiatives, including the preparation and distribution of plain-English and local language (Bahasa and Tetum) materials relevant to multiple project outputs. Some stakeholders will need more support to successfully use information generated by the ATSEA-2 program and this will be provided through engagement, knowledge brokering and interpretation. The Regional Coordination Committee and the RPMU will provide central coordination of synthesis and interpretation of ATSEA-2 program outputs.

4. Using media to extend program findings

ATSEA-2 RPMU team and UNDP will encourage and facilitate use of media by the key stakeholders, while ensuring that relevant protocols are respected.

5. Clear responsibilities

Establishing and maintaining communication with a range of end-user groups that are likely to influence and use the outputs of ATSEA-2 program is recognized as critical to the success of the ATSEA-2 and further discussed in the program's Stakeholder Engagement Strategy. Effective engagement with key end-users will increase community ownership of the solutions to the challenges facing ATS region. The communication of results of specific program projects will primarily be the responsibility of Program Leader and Project Leaders, supported by the RPMU social inclusion and communications officer, and supplemented by UNDP and implementing agency staff.

5. COMMUNICATION TOOLS

A range of communication and knowledge brokering tools have been identified that will be applied to meet the objectives and outcomes of this Strategy, and ensure that the key principles are met. The tools are summarized below and their roles are further described in Annex 1.

BOX 3. COMMUNICATION TOOLS

1. Regional Coordination Committee
2. Stakeholder Partnership Forum
3. Conferences and focus workshops
4. Technical reports and factsheets
5. ATSEA-2 website
6. IW Learn

1. Regional Coordination Committee

The Regional Coordination Committee oversees and coordinates the operations of the ATSEA-2, evaluates progress, and reports to the GEF as required. The Regional Coordination Committee will support the ATSEA-2 Program Leader to deliver a program of work that will enable end-users to act with confidence in implementing actions to substantially improve coastal and marine ecosystems in the region.

The Regional Coordination Committee's primary functions are to ensure sound governance arrangements are implemented, provide strategic advice and direction to ensure that the program of work is designed to deliver knowledge that will have impact through informing the development of practical and effective on-ground actions, and provide advice to the agencies on appropriate investments under the ATSEA-2.

2. Stakeholder Partnership Forum

The Stakeholder Partnership Forum will provide advice to the ATSEA-2 Coordinating Committee on the validity of proposed projects, appropriate selection of projects and personnel, and the results and outputs of ongoing projects. The Regional Coordination Committee and the ATSEA-2 Program Leader will ensure that projects selected and the progress and communication of program findings are robust and serve needs of the wide range of partners and stakeholders.

3. Conferences and focus workshops

Large annual conferences and smaller topic-based workshops differ in the style of engagement and suit different audiences. The ATSEA-2 will implement a mixture of both. Provision has been made in the ATSEA-2 budget for at least **three regional conferences** aimed at the widest possible audience.

End-user engagement workshops and focus meetings will be initiated regularly to disseminate program findings and discuss their policy and management utility, at the regional but also national Indonesia and Timor-Leste levels. These focus workshops can also be initiated at the request of the implementing agency, end-users or program team members, as part of the knowledge brokering and communication activities for individual projects or groups of allied projects.

4. Technical reports, factsheets, infographics and videos

The ATSEA-2 program projects will generate a great number of outputs and often complex scientific and management results. These will be synthesized and disseminated to a general audience of end-users and stakeholders through non-technical reports and short factsheets, infographics and videos. The value of preparing these products is that they provide easy to understand interpretations of scientific results and

management recommendations and therefore have broad appeal. They can also demonstrate the application and value of investment in ATSEA-2 program for policy and decision-making.

5. ATSEA-2 website

The website will be the public face of the ATSEA-2, and will build on the website established for ATSEA-1, provide background information about program projects, results and activities, and access to a range of synthesized and interpreted products contributed by program team members, program providers, end-users and others. The website will fulfill two important objectives of the ATSEA-2: (1) make information publicly available in a timely fashion; and (2) provide a legacy for the ATSEA-2. The capacity of the website to efficiently host a quarterly e-newsletter for communications both within the ATSEA-2 and externally will also be utilized. The design of the website will need to be considered numerous factors, particularly the lessons learned from developing and managing similar websites with large volumes of information and partners; the available software technology and the skills required to effectively use it; the need to link the website to others such as government, UNDP and funding agencies' sites; and finally the skills and budget required to develop and maintain an actively and regularly updated website that meets the communications objectives of the ATSEA-2.

6. IW: LEARN

In addition to publishing all communication and knowledge products on the ATSEA-2 Website, materials will be designed and published with an eye towards knowledge sharing via GEF's International Waters Learning Exchange and Resource Network (IW: LEARN), which promotes experience sharing and learning among GEF International Waters projects, country officials, implementing agencies, and other partners. The overall goal of IW: LEARN is to strengthen transboundary water management around the globe by collecting and sharing best practices, lessons learned, and innovative solutions to common problems. In designing plans around the delivery of knowledge or communication products, the eventual publication on IW: LEARN will be a factor in product design.

6. ROLES AND RESPONSIBILITIES

The ATSEA-2 Knowledge Management Specialist, in collaboration with the program Leader and Regional Coordination Committee, will provide a central coordination role for communication within the ATSEA-2. This position is budgeted for in the project RPMU, as per ProDoc.

During the life of the program the focus of activities will shift from relationship building between program and end-users (year 1) to transfer of program findings. The latter will be supported by reserving a portion of ATSEA-2 funds for cost-effective initiatives recommended here. This fund will also allow limited capacity to react to emerging issues, for example, increasing the ATSEA-2's capacity to influence by generating and distributing plain-English materials relevant to currently controversial topics.

In order to establish and maintain clear lines of communication among ATSEA-2 participants and end-users, it is important to outline key roles and responsibilities. These are summarized in the table below.

ROLES AND RESPONSIBILITIES FOR KEY ATSEA-2 POSITIONS IN RELATION TO COMMUNICATION AND KNOWLEDGE BROKERING

ROLE	RESPONSIBILITIES
<i>UNDP Regional and Indonesia Country Office</i>	<ul style="list-style-type: none"> UNDP is responsible for assisting ATSEA-2 Program Leader and ATSEA-2 staff to identify and engage with relevant officers within UNDP and the implementing agency. UNDP is responsible for notifying the ATSEA team within five (5) working days if

	<p>modifications are required to a proposed media releases.</p>
<i>ATSEA-2 Program Leader</i>	<ul style="list-style-type: none"> • The ATSEA-2 Program Leader should be regarded as the primary ‘public face’ for the ATSEA-2 program, and, together with the Regional Coordination Committee Chair and program providers, is the primary media contact. • Public representation of the ATSEA-2 to media and other stakeholders; • Liaison with team members and end-users to ensure cross-program collaboration and information sharing; • Promotion of the ATSEA-2’s work to end-users and the community; • Final approval of media releases generated within the ATSEA-2; • Responsibility for ensuring that ATSEA-2 protocols governing matters relevant to communication are followed, including taking remedial actions if warranted by the results of annual assessments of engagement effectiveness
<i>Regional Coordination Committee Chair</i>	<ul style="list-style-type: none"> • Liaise with ATSEA-2 program team members and end-users to ensure cross-program collaboration and information sharing. • Establish links with stakeholder organizations and other relevant programs
<i>Project / Activity Leaders</i>	<ul style="list-style-type: none"> • Effective and timely engagement with end-users. This will be achieved by full participation in end-user focused workshops as well as through regular contact with their appointed contacts within specific organizations • Represent their ATSEA-2 work to the public or to more targeted stakeholder groups when called upon by the ATSEA-2 Program Leader.
<i>ATSEA Knowledge Management Specialist</i>	<ul style="list-style-type: none"> • Facilitate ATSEA-2-wide engagement, cross-ATSEA-2 collaboration and knowledge transfer mechanisms. This will involve providing support for the Regional Coordination Committee and annual meetings, organizing conferences/workshops, developing and coordinating the ATSEA-2 website (including e-newsletters etc.), coordinating design and delivery of other ATSEA-2 communication products; developing and maintaining ATSEA-2 contacts database and providing services such as knowledge brokering, draft media releases, synthesis and publishing as required. • Assisting all staff in preparation of Annual Progress Reports and case studies; facilitating targeted stakeholder workshops, meetings and seminars;
<i>Implementing agency and specified end-users (partners)</i>	<ul style="list-style-type: none"> • Specified individuals from end-user organizations have been identified as primary avenues of engagement and two-way knowledge transfer for each ATSEA-2 projects. Some end-user organizations, such as implementing agency, might commit time of specific staff to this task. • Specified end-users (partners) are responsible for adequate two-way engagement with the Project Leaders. The performance of both consultants/RPMU staff and end-users will be monitored by the Program Leader, with problems referred to the Regional Coordination Committee and UNDP for resolution.

7. EVALUATING SUCCESS

While the highly targeted nature of the program projects, pre-existing working relationships between program and end-users, and investment in a communication strategy means that ATSEA-2 program is very likely to have a positive impact on policy and practices in the medium to long term, demonstrating uptake and impact is important. Evaluating the success of program delivery in terms of influence or impact is difficult however the increasing need to demonstrate value for money for public investment in program is inevitably increasing emphasis on monitoring and evaluation. Most attempts to evaluate program success have involved the use of proxies for delivery success, such as number of reports distributed, frequency of positive media coverage, and the use of market program-type interviews, surveys or questionnaires. However, none of these methods used in isolation really answers the core question of how influential the program has been; rather, a suite of methods are required.

All Communication Strategy monitoring and evaluation activities will be consistent with the overarching ATSEA-2 Monitoring and Evaluation Strategy and the Plan. The intent will be to use a variety of approaches to quantify delivery success, so that effectiveness and efficiency (and scope for ATSEA-2 influence) can be improved over time.

Engagement

Effective engagement is critical to successful delivery and eventual influence of ATSEA-2 program outputs. Consequently, it is important that the effectiveness of the ATSEA-2's formal engagement mechanisms be regularly assessed as per Stakeholder xxx (as outline in Part IV of the prodoc) and ensuing Plans, problems identified and refinements made. After each Regional Coordination Committee meeting, the ATSEA-2 Knowledge Management Specialist will collate discussion points from the participants to evaluate the effectiveness and usefulness of these key forums. The effectiveness of other engagement mechanisms, such as targeted workshops or ATSEA-2 conferences, will also be gauged with a range of proxies (e.g. number of attendees) and with exit surveys, where feasible. If a particular engagement mechanism is deemed ineffective, then it will be discontinued or modified to improve its effectiveness before delivery failure occurs.

Delivery

Following principles of 'Pathways to Impact' approach, ATSEA-2 team members and end-users of each ATSEA-2 project will agree on the products to be delivered by each project and approximate timing. Milestone reports and Consultation Committee meetings will, among other tasks, monitor progress towards delivery of the agreed products, and team members will report on progress. Demonstrated and timely progress towards and eventual delivery of products that end-users actually need will be a powerful demonstration of the usefulness of ATSEA-2 program to end-users, and will increase the ATSEA-2's opportunity for influence.

In addition, the ATSEA-2 officer will monitor a range of proxies of delivery success as part of the Monitoring and Evaluation Strategy (e.g. website statistics, number of downloads of reports, number of subscribers to e-newsletters, number of end-user meetings, etc.) and will report regularly on these to the ATSEA-2 Leader. Media monitoring will also be a responsibility of the ATSEA-2 officer and she will report regularly on these to the ATSEA-2 Leader.

Measures of success

There are two major mechanisms by which the success of ATSEA-2 communications will be measured:

1. Reporting against agreed measures in the ATSEA-2 Progress Reports (Annually), and

2. Documenting changes in policy tools that occur as a result of information developed and delivered through ATSEA-2 program. This should be reported to the ATSEA-2 officer by the Regional Coordination Committee.

Reporting against agreed measures

To evaluate progress towards achievement of the objectives of the Strategy, the following measures will be assessed and reported as part of the Annual ATSEA-2 Reports prepared by the ATSEA-2 officer:

1. Provision of this Strategy to all ATSEA-2 staff, including all consultants, and the development of the ensuing Communication Plans for each major activity/output;
2. Establish, maintain and regularly update (with the assistance of an IT person) an ATSEA-2 website;
3. Publication and dissemination of regular program newsletters via email and website upload, including the establishment of a comprehensive email address list that includes 100% of primary target stakeholders/end-users;
4. Conduct of an annual Project Leaders' workshop or conference that includes key stakeholders and program users;
5. Annual reporting of the impacts of the ATSEA-2, including:
 - Documentation of views/downloads from website of interpreted, synthesized material
 - Number of presentations given by program team members to external audiences
 - Number of articles in relevant newsletters (industry, other programs, government and NGO publications)
 - Number and types of publications and other materials (i.e. videos) shared with the stakeholders
6. Annual review and update if required of this Strategy;
7. Participation of the ATSEA-2 officer in all coordination and stakeholder meetings; and
8. Bi-annual meetings with the wider group of stakeholder to share information about program implementation and outputs.

Documenting changes in policy tools

Changes in policy and management decisions, including Best Management Practices (BMPs) that occur as a direct result of information developed and delivered through the ATSEA-2 will be documented and reported in the progress reports prepared by the ATSEA-2 officer.

The number of policy and management decisions and industry BMPs that have been reviewed and/or updated as a result of ATSEA-2 program outputs will be a key performance indicator of success. This information will be reported to the ATSEA-2 officer by the program members involved as part of their Progress Reports, and by the Regional Coordination Committee.

8. BUDGET

Implementation of this Strategy through the development of the project/ output/activities specific Communication Plans will be budgeted in *Outcome 3.1 (ii) Improved monitoring of the status of the ATS and dissemination of information*, estimated at 500,000 USD. This budget will also include all monitoring and evaluation activities prescribed in the Strategy and ensuing plans. Any project/output/activity specific communication activities stipulated in each ensuing plan will need to be budgeted as a part of that activity, as detailed in project activities and budgets in annual work plans. Communication activities should not be thought of as additional parallel work, but as part and parcel to successful project design.

9. APPROVAL AND REVIEW OF THIS STRATEGY

This Strategy has been reviewed and endorsed by the UNDP and the implementing agency in each country. Once approved, communication activities will be implemented as per the Strategy, which will be reviewed annually by the ATSEA-2 Knowledge management specialist in collaboration with the ATSEA-2 Program Leader and the Coordination Committee, and updated as required.

ANNEX I: COMMUNICATION AND KNOWLEDGE BROKERING TOOLS, THEIR ROLES, SHORT- AND MEDIUM-TERM GOALS AND MEASURES OF SUCCESS

Guiding Principles	Target Audience(s)	Communication & Knowledge Brokering tools	Short Term (Year 1) activities	Medium Term (Years 2 – 3) activities	Indicators of Success
Provide solution-based, actionable information to targeted user groups to inform decision-making	Fisheries, marine and coastal and environment portfolio; Other national and sub-national Government; Industry (tourism, agriculture, ports, fishing); NGOs Community groups	Technical reports and fact/information sheets, Infographics, videos	Develop project information sheets/Infographics for topical or significant project findings, as required	Work with program members (RPMU an the consultants) to develop information sheets for multi-year projects and technical reports reporting each projects results	Project information sheets, infographic and videos in plain English, Bahasa and Tetum; and Technical Reports (electronic or paper), available for all multi-year projects
		Contacts database	Build on previous networks (under ATSEA1 and PPA stage) to develop program contacts database and check with end-users	Maintain and update contacts database 6-monthly	Current contacts database maintained
		Targeted workshops, meetings and networking	Facilitate targeted workshops, meetings and networking events for specific year 1 projects with identified engagement milestones or deliverables	Facilitate targeted workshops, meetings and networking events	Focused end-user workshops will facilitate project development and design to
		Conferences & workshops	N/A	Coordinate annual ATSEA-2 conferences	Inform end-users about the value of ATSEA-2 program; Annual conference or workshop to communicate program findings
		Media stories	Circulate media release announcing the 'launch' of the ATSEA-2 and year 1	Work with program team members and government to draft media releases for topical and novel findings, as required	Key findings and value of investment in ATSEA-2 program is made publically available

Guiding Principles	Target Audience(s)	Communication & Knowledge Brokering tools	Short Term (Year 1) activities	Medium Term (Years 2 – 3) activities	Indicators of Success
Deliver messages in a cost-effective, concise way that utilizes a range of appropriate methods	Fisheries, marine and coastal and environment portfolio; Other national and sub-national Government; Industry (tourism, agriculture, ports, fishing); NGOs Community groups;	Interactive website	Launch ATSEA-2 website	Update website and add new information as it is available	Informs large number of end- users and others about results and the value of ATSEA-2 program
		Technical reports and fact/information sheets/Infographics	Develop project information sheets for topical or significant project findings, as required	Work with program team members to develop information sheets for multi-year projects and technical reports reporting each projects results	Project information sheets, infographic and videos in plain English, Bahasa and Tetum; and Technical Reports (electronic or paper), available for all multi-year projects
		Targeted workshops, meetings and networking	Facilitate targeted workshops, meetings and networking events for specific year 1 projects with identified engagement milestones or deliverables	Facilitate targeted workshops, meetings and networking events as required based on topical and end-user needs	Focused end-user workshops will facilitate project development and design to ensure outputs have value for and can be adopted by end- users
		e-newsletters	Prepare and distribute quarterly e-newsletters in consultation with the UNDP	Prepare and distribute quarterly e-newsletters in consultation with the UNDP	Quarterly e-newsletters distributed through the contacts database and on the website
		Conferences and workshops	N/A	Coordinate annual ATSEA-2 conferences	Inform end-users about the value of ATSEA-2 program; Annual conference or workshop to communicate program findings

Guiding Principles	Target Audience(s)	Communication & Knowledge Brokering tools	Short Term (Year 1) activities	Medium Term (Years 2 – 3) activities	Indicators of Success
Understand end-user information needs	Fisheries, marine and coastal and environment portfolio; Other national and sub-national Government; Industry (tourism, agriculture, ports, fishing); NGOs Community groups and community at large	Coordination Committee	Develop Stakeholder Engagement Plan and the Communications Plan based on the existing Strategies	Review SEP and CP annually and update as needed; Implement engagement and communication actions	Build support among stakeholders for continued delivery of new knowledge via the collaborative program model
			Annual Coordination Committee meetings or more frequently as required to communicate findings and discuss strategic direction of ATSEA-2	Annual Coordination Committee meetings or more frequently as required to communicate findings and discuss strategic direction of ATSEA-2	Effective and efficient annual Coordination Committee meetings
		Policy briefings	Prepare project or topic specific policy briefings as Year 1 project results are available	Prepare project or topic specific policy briefings as project results become available	Demonstrates the value of the investment in the ATSEA-2 via open discussion of ATSEA-2 program to policy and on-ground practice;
					Effective adoption of ATSEA-2-generated information into policy development, management and sustainable practice by stakeholders;
		Feedback to program and end-users	Collaboratively develop program priorities and Program Plan	Collaboratively review program priorities and update Program Plan	Build support among stakeholders for continued delivery of new knowledge via the collaborative program model
		Contacts database	Build on previous networks to develop program contacts database and check with end-users and program members	Maintain and update contacts database 6-monthly	Delivering outputs of ATSEA-2 program to program users and the community to inform end-user needs; Uptake of program by end-users

Guiding Principles	Target Audience(s)	Communication & Knowledge Brokering tools	Short Term (Year 1) activities	Medium Term (Years 2 – 3) activities	Indicators of Success
Provide timely information	Fisheries, marine and coastal and environment portfolio; Other national and sub-national Government; Industry (tourism, agriculture, ports, fishing); NGOs Community groups and community at large	Technical reports and fact/information sheets	Develop project information sheets/Infographics for topical or significant project findings, as required	Work with RPMU team members and consultants to develop information sheets for multi-year projects and technical reports reporting each projects results	Project information sheets, infographic and videos in plain English, Bahasa and Tetum; and Technical Reports (electronic or paper), available for all multi-year projects
		Targeted workshops, meetings and networking	Facilitate targeted workshops, meetings and networking events for specific year 1 projects with identified engagement milestones or deliverables	Facilitate targeted workshops, meetings and networking events as required based on topical and end-user needs	Focused end-user workshops will facilitate project development and design to ensure outputs have value for and can be adopted by end- users.
		e-newsletters	Prepare and distribute quarterly e-newsletters;	Prepare and distribute quarterly e-newsletters;	Quarterly e-newsletters distributed through the contacts database and on the website;
		Policy briefings	Prepare project or topic specific policy briefings as Year 1 project results are available	Prepare project or topic specific policy briefings as project results become available	Effective adoption of ATSEA-2-generated information into policy development, Adoption of findings into management and sustainable practice by stakeholders;
		Interactive website	Launch ATSEA-2 website	Update website and add new information as it is available	Informs large number of end- users and stakeholders, including development partners, about results and the value of ATSEA-2 program

Guiding Principles	Target Audience(s)	Communication & Knowledge Brokering tools	Short Term (Year 1) activities	Medium Term (Years 2 – 3) activities	Indicators of Success
Transfer knowledge within ATSEA-2 program and UNDP	ATSEA-2s team members and consultants, Regional Coordination Committee, UNDP	Interactive website & online forums	Launch ATSEA-2 website	Provide all users with free and easy access to all ATSEA-2- generated knowledge and project details and outputs; Launch online forum for discussion of specific topics relevant to the marine and coastal portfolio	Informs large number of end-users and team members about results and the value of ATSEA-2 program;
		ATSEA-2 reporting	First annual ATSEA-2 Report to the UNDP and funding agencies	2nd - 4th biannual ATSEA-2 Reports to UNDP and funding agencies	Review the success of the ATSEA-2's operations on a regular basis, including program progress and evidence of effective knowledge transfer
		Conferences and workshops	N/A	Coordinate annual ATSEA-2 conferences	Inform end-users about the value of ATSEA-2 program; Annual conference or workshop to communicate program findings
		Targeted workshops, meetings and networking	Facilitate targeted workshops, meetings and networking events for specific year 1 projects with identified engagement milestones or deliverables	Facilitate targeted workshops, meetings and networking events as required based on topical and end-user needs	Focused end-user workshops will facilitate project development and design to ensure outputs have value for and can be adopted by end- users.
		e-newsletters	Prepare and distribute quarterly e-newsletters	Prepare and distribute quarterly e-newsletters	Quarterly e-newsletters distributed through the contacts database and on the website
		Regional Coordination Committee	Annual Coordination Committee meetings or more frequently as required to communicate findings and discuss strategic direction of ATSEA-2	Annual Coordination Committee meetings or more frequently as required to communicate findings and discuss strategic direction of ATSEA-2	Effective and efficient annual Coordination Committee meetings
		Policy briefings	Finalize the Program Plan, Knowledge Brokering and Communication Plan and Engagement and Participation Plan for each major activity/ output, and Monitoring and Evaluation Plan	Prepare project or topic specific policy briefings as project results become available	Effective adoption of ATSEA-2-generated information into policy development, management and sustainable practice by stakeholders

Guiding Principles	Target Audience(s)	Communication & Knowledge Brokering tools	Short Term (Year 1) activities	Medium Term (Years 2 – 3) activities	Indicators of Success
Facilitate exchange between program team members (RPMU and consultants) and the policy community	ATSEA-2 team members and consultants, Regional Coordination Committee, UNDP;	Targeted workshops, meetings and networking	Facilitate targeted workshops, meetings and networking events for specific year 1 projects with identified engagement milestones or deliverables	Facilitate targeted workshops, meetings and networking events as required based on topical and end-user needs	Focused end-user workshops will facilitate project development and design to ensure outputs have value for and can be adopted by end- users.
	Fisheries, marine and coastal and environment portfolio; Other national and sub-national Government;	Conferences and workshops	N/A	Coordinate annual ATSEA-2 conferences (“ATSEA week”) in Bali	Inform end-users about the value of ATSEA-2 program; Annual conference or workshop to communicate program findings
		Program seminars and working groups	Facilitate program seminars and working groups on specific topics as required	Facilitate targeted forums for detailed consideration of program outputs and future directions	Build support among stakeholders for continued delivery of new knowledge via the collaborative program model

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Annex E

Stakeholder Consultations through the PPG Stage

RECORD OF STAKEHOLDER ENGAGEMENT ACTIVITIES COMPLETED DURING PROJECT PREPARATION

The PPG team engaged a myriad of stakeholders throughout the ATSEA-2 project preparation process in order to ensure that activities are designed to align with policy frameworks, ongoing initiatives and population needs. Inception workshops in the second quarter of 2015 were followed by extensive stakeholders consultation in Indonesia and Timor-Lest, meetings with government and others in Australia, and finally followed by consultation in Papua New Guinea later in the year. Project validation and appraisal meetings were conducted with government counterparts regionally and nationally through the first quarter of 2016. Where relevant, workshop agendas, lists of participants, workshop reports and facilitator's notes are provided in the following pages.

Regional Workshops/Meetings

Two multi-stakeholder inception workshops were conducted in the second quarter of 2015, one at the regional level in Dili and another at the national level in Indonesia (see below). The objectives of the workshops were to initiate and coordinate the work of PPG team in preparing and finalizing the UNDP project document and relevant documents to GEF Secretariat in timely manner; to update project situational analysis and gather written secondary and primary data that would serve as basis for the project design; and to discuss project implementation arrangements and undertake stakeholder consultations and analysis.

A regional validation workshop with government participation from all four littoral countries took place at the end of 2015 with the objective to receive stakeholder feedback on the design of activities. Finally, a project appraisal meeting took place to review final details of project design and the presentation in the project document to be submitted to GEF. This final appraisal meeting further served to confirm contents of country co-financing letters and the CEO endorsement letter.

- Regional Inception Workshop: Dili Timor-Leste (23-24 April 2015)
- Regional Validation Workshop: Bali, Indonesia (7-8 December 2015)
- Project Appraisal Meeting: Jakarta, Indonesia (2-3 March 2016)

National Workshops/Meetings

A number of national and sub-national workshops and meetings were held in each of Indonesia and Timor Leste to receive feedback of the progress of project design over the course of the PPG period.

- National Inception Workshop: Jakarta, Indonesia (29-30 April 2015)
- National Consultation Meeting: Jakarta, Indonesia (15 September 2015)
- National Pre-Validation Workshop: Bogor, Indonesia (27-28 October 2015)
- National Consultation Meeting: Dili, Timor Leste (5-6 November 2015)
- National Validation Workshop: Jakarta, Indonesia (3 December 2015)
- National Consultation Meeting: Port Moresby, Papua New Guinea (25-28 January 2016)
- National Follow-Up Validation Workshop: Bali, Indonesia (23-25 May 2016)

Targeted Stakeholder Consultation

Between April 2015 and April 2016, a number of face to face meetings were conducted with a wide range of stakeholders in order to obtain further details and clarification on the specific parts of project design, data availability, site selection, implementation arrangements and similar. Stakeholders contacted include:

- Government agencies in all four littoral countries, including provincial and district agencies in project demonstration site areas,
- Academics and researchers in Australia, Indonesia, Papua New Guinea, and Timor-Leste,
- International, national and local NGOs in Indonesia and Timor Leste, including Mercy Corps, CI, TNC, WorldFish, Coral Triangle Center/CTC, WWF, Yayasan Sita Kena, Yayasan Baileo, Yayasan Botam, Forum Perempuan Masyarakat Adat Aru
- Members of the private sector in Indonesia and Timor Leste including fishery associations and oil and gas companies,
- Development partners active in Indonesia, Papua New Guinea, Timor-Leste and the region, including USAID, GIZ, FAO, NOAA, JICA

Local Community Engagement

To test interest in project and the acceptance of the proposed on-ground training and livelihoods activities, several community level focus group discussions were conducted in Rote Ndao Island in Indonesia. Community consultations discussed the needs of the community from the points of view of women and men as well as the interest to engage in alternative livelihood activities. Community consultations were also carried out in the other two selected districts in Indonesia (Aru and Merauke), and in Timor-Leste:

- Provincial Inception Workshop: Ambon, Indonesia (4 May, 2015)
- Community Consultations: Lautem, Viqueque, Timor-Leste (27 May – 1 June 2015)
- Community Consultations: Merauke, Indonesia (11 June 2015)
- District Consultation Meeting: Ba'a, Rote Ndao, Indonesia (18 September 2015)
- Community Level Focus Group Discussions: Rote Ndao Island (19-20 September 2015)

Annex F. Social and Environmental Screening Procedure Report

Project Information

Project Information	
1. Project Title	Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2)
2. Project Number	5439
3. Location (Global/Region/Country)	Indonesia, Papua New Guinea, Timor-Leste

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?

Briefly describe in the space below how the Project mainstreams the human-rights based approach

The project mainstreams the human-rights based approach through supporting integrated methods that lead to the sustainable use and conservation of ecosystem goods and services in the Arafura and Timor Seas (ATS) region. Participation by marginalized groups, including indigenous and local people, will be realized through community consultations and through the activities sponsored by the ATS Stakeholder Partnership Forum. Community activities are focused on strengthening capacities and increasing awareness of local resource users, in order to more sustainably utilize coastal and marine resources, while offering alternative, climate resilient livelihood opportunities for local residents to ensure that environmental sustainability does not come at a cost to the economic development of surrounding communities.

The employment of site mobilizers in Indonesia and Timor-Leste will help facilitate participation by local communities, providing on-the-ground, proactive linkages between duty-bearers (authorities) and rights-holders (local residents). The site mobilizers will be partly facilitated by Gender Equity and Social Inclusion Coordinator, who will provide oversight regarding inclusive participation.

Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment

In this project, women will be actively engaged in planning and decision-making regarding project activities at all levels, from the regional Stakeholder Partnership Forum to community level alternative livelihood activities. In the particular case of Aru, Indonesia, the project incorporates specific, budgeted activities to promote the participation of women in traditional decision-making bodies regarding the use of coastal space and resources.

In order to support the dual objective of achieving economic empowerment of women while promoting climate-resilient, sustainable use of coastal and marine resources, livelihood and income generating activities (accompanied by the necessary budgets) specifically targeting women have been designed for implementation in the ATSEA-2 demonstration sites. Preference will be given to funding those local interventions that benefit both men and women.

Gender equality in planning and decision-making and the women's empowerment activities will be partly facilitated by a Gender Equity and Social Inclusion Coordinator, which will be part of the Regional Project Management Unit, hired under a long-term agreement arrangement. Project interventions will use gender sensitive indicators and collect sex-disaggregated data that will be systematically recorded, reported and integrated into adaptive management responses.

Under the UNDP/UNICEF gender marker scale, a rating of "2" is applied: outputs that have gender equality as a 'significant' objective.

Briefly describe in the space below how the Project mainstreams environmental sustainability

Environmental sustainability is mainstreamed across each of the project components, including strengthening regional environmental governance mechanisms in the ATS region and implementing integrated approaches with respect to sustainable use and conservation of ATS ecosystem goods and services.

The project has allocated a substantive proportion of available resources on strengthening environmental management capacities, thus supporting ATS littoral countries in implementation of national environmental sustainability priorities identified in the UNDAF and Multilateral Environmental Agreements (MEAs), such as the national biodiversity strategies and action plans (NBSAPs).

The project also addresses the environment-development linkage, through promoting more sustainable use of ecosystem goods and services while providing alternative livelihood opportunities and strengthening the resilience of local communities with respect to the impacts of climate change.

Also, the precautionary approach to natural resource conservation is embedded into the Ecosystem Approach to Fisheries Management (EAFM) principle, which will be implemented in each of the 3 beneficiary countries.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks?

Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.

QUESTION 3: What is the level of significance of the potential social and environmental risks?

Note: Respond to Questions 4 and 5 below before proceeding to Question 6

QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?

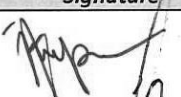

<i>Risk Description</i>	<i>Impact and Probability (1-5)</i>	<i>Significance (Low, Moderate, High)</i>	<i>Comments</i>	<i>Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.</i>
No risk identified				

QUESTION 4: What is the overall Project risk categorization?

Select one (see SESP for guidance)	Comments
------------------------------------	----------

	Low Risk	<input checked="" type="checkbox"/>	The planned project activities are assessed to have minimal risks of adverse social and environmental impacts. The inherent design of the project precludes any of the potential risks listed below.
	Moderate Risk	<input type="checkbox"/>	
	High Risk	<input type="checkbox"/>	
	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?		
	Check all that apply		Comments
	Principle 1: Human Rights	<input type="checkbox"/>	
	Principle 2: Gender Equality and Women's Empowerment	<input type="checkbox"/>	
	1. Biodiversity Conservation and Natural Resource Management	<input type="checkbox"/>	
	2. Climate Change Mitigation and Adaptation	<input type="checkbox"/>	
	3. Community Health, Safety and Working Conditions	<input type="checkbox"/>	
	4. Cultural Heritage	<input type="checkbox"/>	
	5. Displacement and Resettlement	<input type="checkbox"/>	
	6. Indigenous Peoples	<input type="checkbox"/>	
	7. Pollution Prevention and Resource Efficiency	<input type="checkbox"/>	

Final Sign Off

<i>Signature</i>	<i>Date</i>	<i>Name, Title</i>
QA Assessor: 	14/4/2016	Iwan Kurniawan, Technical Officer for NRM, Environment Unit
QA Approver: 	14/4/16	Budhi Sayoko, Assistant Country Director/Head of Environment Unit
PAC Chair		Francine Pickup, Deputy Country Director, UNDP Indonesia

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		
Principles 1: Human Rights	Answer (Yes/No)	Remarks
1. Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No	
2. Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? ¹	No	
3. Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	No	MPAs that will be established or supported by the project are all multi-use and thus will not restrict the access to marine resources by any local communities.
4. Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	No	
5. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	No	
6. Is there a risk that rights-holders do not have the capacity to claim their rights?	No	
7. Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	No	
8. Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	No	
Principle 2: Gender Equality and Women's Empowerment		
1. Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	No	
2. Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No	There seems to be an overwhelming opinion that fishing in Indonesia is mainly undertaken by men. We have seen in Rote that women are more and more going out on day fishing boats, not to mention that women undertake

¹ Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

Checklist Potential Social and Environmental Risks			
		<p>a fair amount of sea food gathering along the coast line (but are not always part of decision making when it comes to use of coastal areas). Further, women constitute the majority working in seafood sales and processing businesses.</p> <p>In the South Fly District of PNG, we understand that women fishers make up approximately 50% of the traditional fishers.</p> <p>EAFM activities are designed to inherently proportionally target men and women fishers and this design requirement is clearly stated in ProDoc.</p>	
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	No	
4.	<p>Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?</p> <p><i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i></p>	No	<p>ICM has the potential to restrict or re-designate space for different uses. If women are not legitimately a part of these decisions, then their ability to use, develop and protect coastal natural resources may be limited. Further, as women are rarely recognized as owners of the land and resources they use and generate livelihoods from, they are unlikely to receive any compensation for the loss of access and resource use. The ICM activities are inherently designed so that they avoid any such risk, and this is clearly stated in ProDoc. This includes targeted participatory assessments of resource use with women and women's groups.</p>
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below			
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management			
1.1	<p>Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?</p> <p><i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i></p>	No	
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection,	No	While project activities will obviously take place in these areas (by nature of the type of project), the activities will not disrupt the function or have a negative impact on these areas.

Checklist Potential Social and Environmental Risks		
	or recognized as such by authoritative sources and/or indigenous peoples or local communities?	
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No Activities established or supported by the project are multi-use and thus will not restrict the access to marine resources by any local communities.
1.4	Would Project activities pose risks to endangered species?	No
1.5	Would the Project pose a risk of introducing invasive alien species?	No
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	No
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No Fishers in the area are already harvesting fish populations. The ATSEA-2 project will be helping them to do so in a more sustainable way, helping them to reduce the capacity. In conclusion, "No" the project will not involve harvesting any more fish than is already being harvested.
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	No
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	No
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? <i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i>	No
Standard 2: Climate Change Mitigation and Adaptation		

Checklist Potential Social and Environmental Risks			
2.1	Will the proposed Project result in significant ² greenhouse gas emissions or may exacerbate climate change?	No	
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	No	
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	No	ICM is not inherently climate adaptive, which is why in ATSEA-2 ICM activities in Rote Ndao and Manatuto includes CC Vulnerability assessments. By including vulnerability assessments as an inherent component of these activities, we should be able to avoid the potential for maladaptation.
Standard 3: Community Health, Safety and Working Conditions			
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	No	
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No	
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	No	
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	No	
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No	
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No	
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	No	
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and	No	

² In regards to CO₂, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

Checklist Potential Social and Environmental Risks			
	international labor standards (i.e. principles and standards of ILO fundamental conventions)?		
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No	
Standard 4: Cultural Heritage			
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No	
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No	
Standard 5: Displacement and Resettlement			
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No	
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No	Again, MPAs could potentially restrict access. However, the existing MPAs and the planned new ones are multiple-use protected areas.
5.3	Is there a risk that the Project would lead to forced evictions? ³	No	
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No	
Standard 6: Indigenous Peoples			
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	No	The 3 beneficiary countries do not refer to local peoples as "indigenous". We are confirming this with PNG.
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No	
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples	No	

³ Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

Checklist Potential Social and Environmental Risks		
	(regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? <i>If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.</i>	
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No Consultations with traditional authorities will be managed by the site mobilizers, with direction provided by the national coordinators. For example, EAFM and IUU activities in the South Fly District of PNG will be done in consultation with the Treaty Village Council, local government units, and with the assistance of a local NGO. The ProDoc states that Activities 2.1.1-24 (Artisanal Fisheries Management Plan) and 2.1.1-26 (Local Catch ByLaws) will go ahead only after an extensive culturally appropriate consultation process that will take place at the start of implementation and continue throughout.
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	No

Checklist Potential Social and Environmental Risks		
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	No
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	No
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	No

Annex G
Co-Financing Letters



Ms Adriana Dinu
Executive Coordinator and Director a.i.
UNDP-GEF
Energy & Environment Group, BDP
304 East 45th Street, 9th Floor
New York, NY 10017 USA

Dear Ms Dinu

Subject: Co-financing Commitment - UNDP-GEF Project: Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA2 Project)

I am writing to you to outline the Australian co-financing commitment for the proposed project *Arafura and Timor Seas Ecosystems Action – Implementation of the Strategic Action Programme (SAP)*.

The Australian Government is a strong investor in activities which aim to improve sustainable management of the marine-coastal ecosystems and fisheries within the Arafura and Timor Seas. Australia commits AUD\$6.487 million over the 2016-2021 period as co-financing for the ATSEA2 Project, subject to annual budgetary processes. Grants and in-kind services make up this commitment. The range of investments which will contribute to ATSEA2 objectives are summarised below.

Outcome 1: Governance and Regional coordination, and climate change

Australia will be an active contributor to the implementation of the project, including through attendance at the coordination committee meetings and Australian attendees at the stakeholder Forum. This contribution is estimated to be AUD\$0.3 million. Further regional coordination will be supplied through our support as a partner of the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF).

Australia will invest about AUD\$1.325 million in the understanding of climate change, through the work of the Bureau of Meteorology in the region and with counterpart meteorological agencies in ATSEA countries. The Bureau of Meteorology invests in operational weather modelling and weather forecasting in the Arafura and Timor Seas region.

Outcome 2: improving Large Marine Ecosystem carrying capacity

Through its support for the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF), the Australian Government plans to invest up to AUD\$2.6 million in several projects in the region which support sustainable fishery practices and improved planning and management of biodiversity, ecologically important habitat and marine species. As the CTI-CFF supports people-centred biodiversity conservation, sustainable development, poverty reduction and equitable benefit sharing, much of its work is complementary to the Strategic Action Program.

Fisheries in the Australian exclusive economic zone are managed sustainably and regularly reviewed under the *Environment Protection and Biodiversity Conservation Act 1999*. Over that period it is expected that about AUD\$0.15 million will be invested in these processes.

The Australian Government will also provide approximately AUD\$0.585 million for research of relevance to the management of marine biodiversity (hammerhead sharks) through its National Environmental Science Programme (NESP), which is anticipated to include Australia's northern seas.

Outcome 3: Knowledge management

Australia maintains considerable information on ocean health, and of the ecosystems of the Arafura and Timor Seas, through its agencies Geosciences Australia, the Australian Institute for Marine Science, Parks Australia and State and Territory agencies. The National Environmental Science Programme (NESP) will provide approximately AUD\$1.527 million for a project to improve ecosystem understanding to support sustainable use, management and monitoring of marine assets in the north and northwest.

As noted above these programmes are subject to annual Australian Government budgetary processes and as such may change. Any changes will be advised through regular reporting.

The contact officer for this matter is Ms Katy Nicholls, Director, Pacific and Coral Triangle Section. Her email is katy.nicholls@environment.gov.au and her phone contact is +61 2 62741797.

Yours sincerely



Chris Schweizer

Assistant Secretary
Marine and International Heritage Branch

25 January 2016

ATSEA2 - Australia co-financing

Project Outcomes	Australian Activities	Cofinancing - grants and in-kind AU\$ m
1. Regional, National and Local Governance for Large Marine Ecosystem Management (LME)		
<p>1.1 Regional and national mechanisms for cooperation in place and operational:</p> <p>(i) Regional Coordination Committee and supporting Secretariat created;</p> <p>(ii) Improved stakeholder participation through the establishment of a Stakeholder Partnership Forum;</p> <p>(iii) Interministerial Committees strengthened to improve coordination.</p> <p>(iv) Financial mechanisms in place to support implementation of SAP and NAPs.</p>	<p><u>Department of the Environment</u></p> <p>> participation in Coordination Committee meetings and hosting every three years</p> <p>> attendance and coordination support for Stakeholder Forum</p> <p>> support for Coral Triangle Initiative regional coordination mechanisms</p>	0.3
<p>1.2 Strengthened institutional and human resource capacity towards integrated approaches in natural resource management and biodiversity conservation:</p> <p>(i) Local policies harmonized with national policies in Indonesia and Timor Leste to support SAP/NAP implementation;</p> <p>(ii) Localization of guidelines/handbook on integrated approaches for use in national and local trainings;</p>		
<p>1.3 Better understanding of climate change impacts on marine and coastal ecosystems lead to regional actions:</p> <p>(i) Improved understanding of climate change impacts on fisheries and marine/coastal ecosystems through scientific analysis;</p> <p>(ii) Climate change considerations incorporated into SAP, NAP and relevant policies</p>	<p><u>Australian Bureau of Metereology</u></p> <p>Bureau activities which support climate change adaptation in the Arafura and Timor Seas (ATS) region are:</p> <ul style="list-style-type: none"> • Operational modelling in BoM HO <ul style="list-style-type: none"> - Oceans & Climate – OceanMAPS & AusWave & POAMA support – eg - ACCESS models over specified domains, including for Indonesia / PNG - ACCESS-TC modelling for cyclones in all local ocean basins, including many in Arafura / Timor • Forecasting and other activities in NT Regional Office (NTRO) <ul style="list-style-type: none"> - Special Advisory for Tropical Cyclones for Timor-Leste. . - Tropical Cyclone and Coastal Waters Wind Warnings for Arafura and Timor Seas. - Discussions between NTRO, Charles Darwin University and DFAT on climate-related intelligence. - Sea Level Monitoring equipment in Darwin Harbour and Milner Bay (Groote Eylandt). - Weekly Tropical Climate Note. <p>NOTE - costs are based on estimated investment in the ATS - the Bureau does not disaggregate costs based on marine regions.</p>	1.325
2. Improving LME Carrying Capacity to Sustain Provisioning, Regulating and Supporting Ecosystem Services		
<p>2.1 Improved management of fisheries and other coastal resources for livelihoods, nutrition and ecosystem health in Indonesia and Timor Leste:</p> <p>(i) EAFM implemented at the LME level and localized in up to 4 priority area-specific fisheries;</p> <p>(ii) Value-chain analysis and pre-assessment conducted to move up 3 selected</p>	<p><u>State and Territory Fisheries management</u></p> <p>> A number of fisheries are in the ATS area, including nine NT managed fisheries, three Queensland fisheries in the Gulf of Carpentaria, and one small WA management fishery.</p> <p>> These fisheries are reviewed five yearly and assessed under the Commonwealth EPBC Act 1999. The estimated cost of managing this compliance over the period is shown. More detailed information is available at http://www.environment.gov.au/marine/fisheries</p>	0.15

<p>fisheries towards certification;</p> <p>(iii) National actions strengthened in support of the Regional Action Plan for Responsible Fishing Practices resulting in reduction of IUU fishing in ATS by up to 10%;</p> <p>(iv) Integrated Coastal Management Plans (ICM) developed and implemented in up to 4 priority sites</p>	<p><u>Australian Government Support for the CTI-CFF</u></p> <p>> Grant - Building a sustainable seafood industry to support coastal communities in the Arafura Sea – in consideration</p>	<p>0.75</p>
<p>2.2 Reduced marine pollution improve ecosystem health in 4 coastal/ marine hotspots in the Arafura and Timor Seas through:</p> <p>(i) Annual coastal clean-ups at least once a year to reduce marine debris from various sources and raise awareness;</p> <p>(ii) Enhanced data and information regarding the sources and sinks for contaminants in the ATS with pollution hotspots identified; appropriate controls of point and non-point sources of pollution implemented</p>		
<p>2.3 Biodiversity conserved through rehabilitation and protection of coastal and marine habitats and protection of species:</p> <p>(i) Updated information and database on coral, mangrove and seagrass beds in the ATS leading to identification of priority conservation areas in the two countries;</p> <p>(ii) Network of MPAs established and declared in Indonesia and Timor Leste covering about 1,750,000 ha (e.g., Southeast Aru Islands) with corresponding management plans developed and implemented;</p> <p>(iii) Endangered marine mega fauna such as turtles and dugongs protected</p>	<p><u>Australian Government Support for the CTI-CFF</u></p> <p>> Community capacity building in marine turtle monitoring – in consideration. Part of project in Arafura/Timor</p>	<p>0.4</p>
<p>2.4 Ecosystem-based adaptation implemented at the local level towards enhanced resilience in the coastal areas of the Arafura and Timor Seas:</p> <p>(i) CC adaptation incorporated in ICM plans for two most at-risk coastal and marine areas in the Timor Leste;</p> <p>(ii) Ecosystem-based adaptation implemented in up to two sites in Indonesia.</p>	<p><u>Australian Government Support for the CTI-CFF</u></p> <p>> Seascapes PNG – analysis and planning</p> <p>> Ecotourism PNG – sustainable use of natural values for livelihoods etc.</p> <p>> Timor Leste Marine Planning – in consideration</p> <p><u>National Environmental Science Programme (NESP)</u></p> <p>During 2016-21 the NESP will fund a projectsfor work in marine assets and species anticipated to include Australia's northern seas: Defining connectivity of Australia’s hammerhead sharks</p>	<p>0.7</p> <p>0.5</p> <p>0.25</p> <p>0.585</p>
<p>3. Knowledge Management</p>		
<p>3.1 Improved monitoring of the status of the ATS and dissemination of information:</p> <p>(i) Holistic (SMART) indicators developed to monitor ocean health, SAP and NAP implementation; indicators used for progress evaluation, SAP and TDA updating and priority setting;</p> <p>(ii) Improved dissemination of information and best practices through a communications strategy, enhanced ATSEA project website, bulletins, publications and videos in English and national languages, and contributions to IWLEARN equivalent to 1% of IW grant</p>	<p><u>National Environmental Science Programme (NESP)</u></p> <p>During 2016-21 the NESP will fund projects for work in marine assets and species in Australia's northern seas:</p> <p>> Ecosystem understanding to support sustainable use, management and monitoring of marine assets in the North and North-west regions - this project will leverage previous research to improve ecosystem understanding through a synthesis of existing information and by making testable predictions about the character and extent of conservation values, including for key ecological features (KEFs) and Commonwealth Marine Reserves. End-users and stakeholders will benefit from improved regional descriptions of marine ecosystems and uncertainty statements. In turn, this will inform prioritisation of future investments in monitoring marine ecosystems and State of the Environment reporting.</p>	<p>1.527</p>
<p>TOTAL</p>		<p>6.487</p>



MINISTÉRIO DA
AGRICULTURA
E PESCAS



Gabinete
do Director Geral das
Pescas

Ref: No. 43 /GDGP/II/2016

Dili, 11 February 2016

Adriana Dinu

Executive Coordinator

UNDP - Global Environmental Finance Sustainable Development Cluster Bureau for Policy and Programme Support United Nations Development Programme 304 East 45th Street, FF 914 New York, NY 10017, USA

Subject: The Ministry of Agriculture and Fisheries of Timor-Leste's Contribution/Co financing to GEF/UNDP Project:
Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs ("ATSEA2 project"), PIMS 5439

Dear Ms. Dinu,

The Ministry of Agriculture and Fisheries (MAF) of Timor-Leste is pleased to confirm its co financing commitment to the execution of the regional project entitled GEF/UNDP Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs ("ASTEAZ project", PIMS 5439).

MAF shall commit grant co financing in the amount of USD 20 million. The contribution support will apply to the five-year duration of the project implementation, and is represented by national and sub national projects, programs, and activities directly related to improved fisheries management, strengthened and expanded protection of marine biodiversity, and improved coastal zone management.

MAF as the national focal agency for Timor-Leste will ensure that joint programming and budgeting in the use of the GEF grant funds and co financing will lead to successful implementation of the project.

We look forward to the successful implementation of this important project.

Sincerely,

Acácio Guterres

Director General of Fisheries, Ministry of Agriculture and Fisheries Timor-Leste

cc: Mr. Knut Ostby, Resident Representative, UNDP Timor-Leste
Jose Erez Padilla, UNDP Bangkok Regional Hub



NATIONAL FISHERIES AUTHORITY

PO Box 2016, Port Moresby, National Capital District, Papua New Guinea
Telephone: 3090444, Facsimile: 320 2061, Email: nfa@fisheries.gov.pg

OFFICE OF THE MANAGING DIRECTOR

February 29th, 2016

Adriana Dinu

Executive Coordinator

UNDP - Global Environmental Finance

Sustainable Development Cluster

Bureau for Policy and Programme Support

United Nations Development Programme

304 East 45th Street, FF 914

New York, NY 10017, USA

Subject: **The National Fisheries Authority of Papua New Guinea's Contribution/Co-financing to GEF/UNDP Project:**
Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs ("ATSEA2 project"), PIMS 5439

Dear Ms. Dinu,

The National Fisheries Authority (NFA) of Papua New Guinea is pleased to confirm its co-financing commitment to the execution of the regional project entitled GEF/UNDP Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs ("ASTE2 project", PIMS 5439. NFA shall commit cash co-financing in the amount of USD 1.5 million and in-kind co-financing in the amount of USD 0.5 million.

The contribution support will apply to the five-year duration of the project implementation. The cash co-financing contribution is represented by the funding provided to the Western Province as part of the Provincial Impact Project, in support of their Provincial Fisheries Implementation Plan.

The USD 0.5 million in in-kind co-financing contribution would support project management and would be composed of staff salaries and office space and services for the national coordinator at the NFA office in Port Moresby.

NFA as the national focal agency of the Project in Papua New Guinea will ensure that joint programming and budgeting in the use of the GEF grant funds and co-financing will lead to successful implementation of the project.

We look forward to the successful implementation of this important project.

Sincerely,



John KASU

Managing Director

cc: Roy Trivedy, Resident Representative, UNDP Papua New Guinea
Jose Erez Padilla, UNDP Bangkok Regional Hub



14 March 2016

Dear Ms. Dinu,

Subject: UNDP Indonesia Co-financing Confirmation for the "Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs - ATSEA 2 project (PIMS 5439)"

We are pleased to confirm that UNDP Indonesia will contribute in cash co-financing in the amount of USD 75,000 to the ATSEA 2 project. This contribution will be allocated to support effective project monitoring and evaluation as well as leverage other resources.

UNDP is fully committed to support this strategic endeavor from the Government of Indonesia to enhance Arafura and Timor Seas' governance for sustainable marine resources management and improving communities' quality of life. UNDP Indonesia as Principle Project Representative will ensure successful implementation of this important project.

Thank you in advance for your consideration.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Budhi Sayoko', is positioned above the typed name.

Budhi Sayoko
Assistant Country Director/
Head of Environment Unit

Ms. Adriana Dinu
Executive Coordinator
Sustainable Development Cluster
Bureau for Policy and Programme Support
UNDP - Global Environment Facility
United Nations Development Programme
304 East 45th Street, FF 914
New York, NY 10017, USA.



**LEMBAGA ILMU PENGETAHUAN INDONESIA
PUSAT PENELITIAN LAUT DALAM**

Alamat : Jl. Y. Syaranamual, Guru-Guru, Poka - Ambon 97233

Telp : 0911 - 322676, 322677 ; Fax : 0911 - 322700

E-mail : ppld@lipi.go.id Website : www.deepsea.lipi.go.id

RefNo : 338 /IPK.3/KS/IV/2016

Ambon, 11th April 2016

Adriana Dinu

Executive Coordinator

UNDP - Global Environmental Finance

Sustainable Development Cluster

Bureau for Policy and Programme Support

United Nations Development Programme

304 East 45th Street, FF 914

New York, NY 10017, USA

Subject: Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs ("ATSEA2 project"), PIMS 5439

Dear Ms. Dinu,

The Centre for Deep Sea Research, Indonesian Institute of Sciences (LIPI) is pleased to confirm its cofinancing commitment to the execution of the regional project entitled GEF/UNDP Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs ("ASTEA2 project", PIMS 5439). The Centre shall commit grantcofinancing in the amount of USD 300,000.

This contribution involves the support of research programs using RV. Baruna Jaya VII directly related to improved fisheries management in the Arafura and Timor Seas region, strengthened and expanded protection of marine biodiversity, and improved coastal zone management.

I would like to ensure our support and look forward to the successful implementation of this important project.

Sincerely,


Dr. Augy Syahailatua

Director

cc:

Deputy Chairman of Earth Sciences-LIPI

Christophe Bahuét, UNDP Indonesia

Jose Erez Padilla, UNDP Bangkok Regional Hub



MINISTRY OF MARINE AFFAIRS AND FISHERIES SECRETARIAT GENERAL

ADDRESS: JALAN MEDAN MERDEKA TIMUR NO. 16, JAKARTA 10110
PHONE : (021) 3519070, (HUNTING), FAKSIMILE (021) 3520351
EMAIL : setjen@dkp.go.id, PO. BOX 4130 JKP 10041

Ref. No. : 461 /SJ/IV/2016

Jakarta, April 14, 2016

To :
Ms. Adriana Dinu
Executive Coordinator
UNDP - Global Environmental Finance
Sustainable Development Cluster
Bureau for Policy and Programme Support
United Nations Development Programme
304 East 45th Street, FF 914
New York, NY 10017, USA

**Subject: GEF Project on Implementation of the Arafura and Timor Seas Regional
and National Strategic Action Programs (ATSEA II), PIMS 5439**

Dear Ms. Dinu,

Ministry of Marine Affairs and Fisheries of the Republic of Indonesia is pleased to collaborate with UNDP to the execution of the regional project entitled Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA II) and confirm its commitment for in-kind co-financing in total amount of USD 33,090,522.

These contributions will involve both national and subnational projects, programs, and activities directly related to improved fisheries management in the Arafura and Timor Seas region, strengthened and expanded protection of marine biodiversity, and improved coastal zone management. Included in this contribution is the amount of USD 400,000 in cash co-financing that would support project management composed of office space in Jakarta and the regional office in Bali, as well as certain services for the office facilities. MMAF focal point for ATSEA II project is Director for Fisheries Research and Development Center, Agency of Marine and Fisheries Research and Development.

Thank you for your support and sustained cooperation.

Sincerely,


Sjarief Widjaja
Secretary General

Cc:
Minister of Marine Affairs and Fisheries RI



June 3, 2016

Ms. Adriana Dinu
Executive Coordinator
UNDP-Global Environment Facility
Bureau for Policy and Programme
United National Development Programme
30th East 45th Street, FF 916
New York, NY 10017
USA

Subject: Co-financing Letter for UNDP-GEF Project: USAID Adapt Asia-Pacific Contribution to the PPG Design of the "Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA2)".

Dear Ms. Dinu,

This letter serves to confirm that United States Agency for International Development (USAID), through its USAID Adapt Asia-Pacific program, provided technical assistance support comprising approximately 164 person-days of national and international professional services with a value of US\$85,651, inclusive of the travel and per diem, as grant co-financing to the design of a program to enhance sustainable development of the Arafura-Timor Seas region to protect biodiversity and improve the quality of life of its inhabitants through conservation and sustainable management of marine-coastal ecosystems. This co-financing contribution is provided to the GEF Trust Fund-funded project "Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA2)", which will be implemented by the Governments of Indonesia, Timor Leste, and Papua New Guinea, in partnership with UNDP.

Sincerely,

Lee E. Baker
Chief of Party
USAID Adapt Asia-Pacific



13 June 2016

Dear Ms. Dinu,

**Subject: Additional UNDP Indonesia Co-financing Confirmation for the
"Implementation of the Arafura and Timor Seas Regional and National
Strategic Action Programs – ATSEA 2 Project (PIMS #53439)"**

Referring to our co-financing commitment letter dated 14 March 2016, we confirmed to provide additional US\$ 25,000 as in-kind contribution to support implementation of the ATSEA Phase 2 project. The fund will be used to strengthen communication of project results and coordination among key national stakeholders as well as providing relevant expertise.

UNDP is fully committed to continue support this important project as prioritized by the Ministry of Marine Affairs and Fisheries Indonesia as well as national government in line with towards achievement of Sustainable Development Goals (SDGs) targets.

Thank you in advance for your kind attention and continuous cooperation.

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'Budhi Sayoko', is written over the typed name and title.

Budhi Sayoko
Assistant Country Director/
Head of Environment Unit

Ms. Adriana Dinu
Executive Coordinator & Director a.i.
UNDP - Global Environment Facility
United Nations Development Programme
304 East 45th Street, FF 914
New York, NY 10017, USA.



Empowered lives.
Resilient nations.

03 June, 2016

Adriana

Dear Ms. Dinu,

Subject: Co-Financing for Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs"

In reference to the above project, I am pleased to inform you that the UNDP PNG Country Office (CO) fully supports the Government of Papua New Guinea (GoPNG) through the National Fisheries Authority's efforts on protecting the country's marine biodiversity. The project is aligned with the UNDP's programme priorities under UNDAF's Pillar 4 on Environment, Climate Change and Disaster Risk Management. Thus, the implementation of the project will contribute to achieving the output focusing on promoting biodiversity conservation and improvement in natural resource management targeting the international maritime region of the Arafura Timor Seas.

The CO would hereby like to confirm its commitment of USD25, 000 as an in-kind co-financing of the project on "*Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs*". The co-financing will be ensured through planned relevant activities in the areas of environment, governance and economic development.

Please do not hesitate to contact the CO project focal point Ms. Gwen Maru on email, gwen.maru@undp.org should you require additional information or clarification of our co-financing support.

Thank you and I look forward to your continued support to the CO.

Yours Sincerely,



Sukhrob Khoshmukhamedov
Deputy Resident Representative

Ms. Adrina Dinu
Executive Coordinator
UNDP/GEF
New York

ANNEX H
Terms of Reference for the Regional Project Management Unit

Regional Project Manager (International)	2
Regional Biodiversity Specialist (International)	5
Regional Policy/Results Based Management Specialist (International).....	7
Finance / Procurement Officer (National).....	9
Administrative Assistant (National).....	12
National Coordinators (Indonesia, Timor-Leste, Papua New Guinea).....	14
Site Mobilizers (National).....	16
Gender Equity and Social Inclusion Coordinator (Long-Term Consultant)	18
Communications and Knowledge Management Specialist (Long-Term Consultant)	20

REGIONAL PROJECT MANAGER (INTERNATIONAL)

I. POSITION INFORMATION

Post Title: **Regional Project Manager (International)**

II. ORGANIZATIONAL CONTEXT

Under the supervision of the Executing Agency of the ATSEA-2 Project, the Regional Project Manager (RPM) has the responsibility to run the project on a day-to-day basis. The RPM's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

III. KEY FUNCTIONS / KEY RESULTS

-) Lead day-to-day implementation of the work plan and budget of the ATSEA-2 Project based on the approved UNDP Project Document.
-) Liaise directly with the ATSEA-2 project proponents and the representatives of the Regional Project Partners and other donors, in order to coordinate the annual work plan for the project. The work plan will provide guidance on the day-to-day implementation of the current project document and on the integration of the various co-financed partner initiatives.
-) Responsible for all substantive, managerial and financial reports from the Project.
-) Provide overall supervision for all project staff in the Regional Project Management Unit (RPMU) and National Coordination Units (NCUs) as well as guide and supervise all project partners responsible for executing different components of the project as well as external policy relations.
-) Consult and coordinate closely with the Regional Steering Committee (RSC), National Project Boards, Regional Project Partners, and the respective GEF IW project officers in all regions.
-) Apply Expertise in Fisheries Management, GEF IW Projects, information technology, structured learning, and project management to maintain the project's overall integrity and coherence.
-) Manage the realization of project outputs through activities as described in the Project Document.
-) Identify and obtain any support and advice required for the management, planning and control of the project.
-) Plan the activities of the project and monitor progress against the initial quality criteria.
-) Monitor events as determined in the Monitoring & Communication Plan, and update the plan as required.
-) Manage requests for the provision of financial resources, using advance of funds, direct payments, or reimbursement.
-) Monitor financial resources and accounting to ensure accuracy and reliability of financial reports.

- J Manage and monitor the project risks as initially identified in the Project Document, submit new risks to the RSC for consideration and decision on possible actions if required; update the status of these risks by maintaining the Project Risks Log.
- J Be responsible for managing issues and requests for change by maintaining an Issues Log.
- J Prepare the Project Quarterly Progress Report (progress against planned activities, update on Risks and Issues, expenditures) and submit the report to the RSC and Project Assurance.
- J Prepare the Annual Review Report, and submit the report to the RSC and the National Project Boards;
- J Based on the review, prepare the Annual Work Plan for the following year, as well as Quarterly Plans if required.
- J Prepare Final Project Review Reports to be submitted to the RSC and the National Project Boards.
- J Identify follow-on actions and submit them for consideration to the RSC.
- J Manage the transfer of project deliverables, documents, files, equipment and materials to national beneficiaries.
- J Prepare final Country Delivery Reports for signature by UNDP.

Technical Coordination Function:

- J Provide Expertise in Fisheries Management and other fisheries-related activities under all Components in the Project Document.
- J Supervise and provide technical Expertise to all ATSEA-2 project activities.
- J Ensure project progress and impact through liaisons with ATS Stakeholder Partnership Forum timely and quality delivery of activity deliverables, according to project work plans and within activity's budget.
- J Liaise, consult and network with appropriate regional and global partner organizations, other relevant IW-related environmental and/or sustainable development programs.
- J Ensure consistency between the various project elements and related activities provided or funded by other donor organizations.

Project Management Function:

- J Under the Executing Agency's rule and in coordination with UNDP, identify requirements for equipment and travel related to the implementation of the workplan.
- J Provide direction and guidance to project team(s)/ responsible party (ies).
- J Manage the project, its staff, cross-component coordination, deliveries and budget.
- J Liaise with any or all suppliers.
- J Prepare the annual work plan based on the Project Document, in close consultation and coordination with the RSC, Regional Project Partners and relevant donors;
- J Organize and supervise all reporting activities to the Implementing Agency (UNDP), Executing Agency, RSC, ensuring adherence to GEF Agencies' administrative, financial and technical reporting requirements.
- J Mobilize goods and services to initiative activities, including preparing and overseeing the development of Terms of Reference for consultants and contractors;

) Oversee the development and management of all M&E requirements.

IV. QUALIFICATIONS AND SKILLS REQUIRED

Education: At least a master's degree, PhD preferred, in Environmental Science, Fisheries Management, Coastal Area Management, Planning, Governance, or International Relations.

Experience: At least ten years of development work experience, preferably in the Arafura and Timor Seas area. Practical experience in fisheries and coastal area management is essential. Familiarity with the policies, programs and operating styles of local and national governments of the assigned countries is required.

Languages: Fluency in the English language, with effective oral and written communication skills. Ability to speak Bahasa Indonesia is essential. Portuguese, Tetun, and/or Tok Pisin would be an asset.

IT Skills: Proficiency in the use of various software applications (MS Word, MS Excel, MS Project, and Financial Systems) and adequate knowledge and practical experience in handling web- based management systems.

REGIONAL BIODIVERSITY SPECIALIST (INTERNATIONAL)

I. POSITION INFORMATION

Post Title: **Regional Biodiversity Specialist (International)**

II. ORGANIZATIONAL CONTEXT

Under the supervision of the ATSEA-2 Regional Project Manager, the Regional Biodiversity Specialist - a full time member of ATSEA-2's Regional Program Management Unit (RPMU) - is responsible for the effective planning, management, monitoring and evaluation of biodiversity related program development and implementation in ATS littoral countries and across the ATS region, e.g. from work planning to technical support for the implementation to M&E reporting of biodiversity related activities. Biodiversity activities in ATSEA-2 include, but are not necessarily limited to, establishment and improved management of Marine Protected Areas (MPAs); planning and implementation of Integrated Coastal Management (ICM); ecosystems-based adaptation (EbA) to climate change impacts; and conservation of marine megafauna.

III. KEY FUNCTIONS / KEY RESULTS

-) Guide the preparation of country work plans in accordance with the Project Document, including strategic and/or innovative initiatives to be undertaken for the delivery of project outputs and performance indicators in the assigned countries and regional activities covering Component 2 in the Project Document.
-) Access assistance and/or provide technical support, training and coaching for the development and implementation of country work programs relating to Component 2 from other sections of the Regional Project Management Unit or other project partners, existing and newly developed Communities of Practice and collaborating projects and organizations.
-) Organize and facilitate the conduct of various capacity development, training and knowledge sharing initiatives within countries, or as part of regional initiatives, in accordance with the outcomes in Component 2 of the Project Document, to ensure that the concerned managers and staff, Learning Centers and members of the Regional Project Management Unit and National Coordinator Units have the necessary skills, competence and support to implement the scheduled work/projects.
-) Exercise quality control over the development and implementation of projects to make sure that these are aligned with national policies and priorities, and ATSEA-2 objectives and targets and closely monitor the progress, results and impacts of country efforts through monitoring, evaluation and preparation of site level and national and regional progress reports.
-) Oversee the development of annual work plans and budgets, financial allocations and expenditures for Component 2 activities of the project in the assigned countries and across the region, and ensuring most effective use of the resources.
-) Co-organize and participating actively in regular stakeholder meetings and project review sessions at the national and regional levels.

-) Arrange for the conduct of periodic program monitoring field visits to provide technical and operational support and guidance, and to transfer knowledge and skills to the local counterparts in the countries of assignment.
-) Foster operational and policy linkages and sharing of lessons learned between and among ATSEA member countries, Partners and collaborators, GEF, UNDP and institutions in the region involved in the country program.
-) Identify and promote opportunities for public-private partnership arrangements, involving national, provincial and local governments, donors, international organizations and the corporate/business sector, including scaling up of ATSEA programs, replication of best technologies/practices and investments in biodiversity conservation, sustainable fisheries and alternative livelihoods, ICM, pollution reduction and climate change adaptation/ecosystem based adaptation facilities and services.
-) Actively network, acquiring access to global best practices, documenting them and sharing with national and regional ATSEA stakeholders for optimum delivery of project outputs.
-) Keep abreast of the national and regional environmental concerns and priorities as well as the socio-economic conditions and trends and relating their impact on ATSEA and its programs in the region as well as in the respective countries.

IV. QUALIFICATIONS AND SKILLS REQUIRED

- Education:** At least a master's degree, PhD preferred, in environmental science, coastal area management, biodiversity conservation, or another related discipline.
- Experience:** At least ten years of development work experience, preferably in the ATS region, and with field exposure.
- Practical experience in coastal area management, biodiversity conservation and climate change adaptation is essential.
- Familiarity with the policies, programs and operating styles of local, provincial and national governments that are participating in the project.
- Languages:** Fluency in the English language, with effective oral and written communication skills. Some Bahasa, Portuguese, Tetun, and/or Tok Pisin would be an advantage
- IT Skills:** Proficiency in the use of various software applications (MS Word, MS Excel, MS Project, and Financial Systems) and adequate knowledge and practical experience in handling web- based management systems.

REGIONAL POLICY/RESULTS BASED MANAGEMENT SPECIALIST (INTERNATIONAL)

I. POSITION INFORMATION

Post Title: **Regional Policy/Results Based Management (RBM) Specialist**

II. ORGANIZATIONAL CONTEXT

Under the supervision of the ATSEA-2 Regional Project Manager (RPM), the Regional Results Based Management (RBM) Specialist - a full time member of ATSEA-2's Regional Program Management Unit (RPMU) - will be the main technical lead responsible for the effective planning, management, and monitoring of ATSEA-2 activities related to policy harmonization and institutional capacity building across countries in the ATS region. Further, the RBM Specialist will take a lead role in monitoring project activities according to the project's results framework as well as coordinating and monitoring stakeholder engagement across the project's activities.

III. KEY FUNCTIONS/KEY RESULTS

Policy Analysis and Institutional Capacity Building

- J Oversee the implementation of all activities related to policy harmonization, policy, plan and by-law drafting and institutional capacity building, including work planning, implementation, design of ToRs for external consultants, and monitoring of related activities;
- J Undertake all regional assessments related to financing mechanisms (Output 1.1.4), policy harmonization (Output 1.2.1), institutional capacity (Output 1.2.2);
- J Work directly with National Coordinators to undertake the related national assessments (to the points above), undertaking ultimate responsibility for the assessment reports;
- J Provide support to the planning harmonization and development for integrated coastal management (Outcome 2.4);
- J Facilitate consultations and work with the Regional Project Manager to draft any new fisheries related policies in PNG and Timor Leste;
- J Work with PNG National Coordinator to draft the PNG NAP.

Results Monitoring

- J Set-up a monitoring system for ATSEA-2 implementation according to the Results Framework in the Project Document;
- J Coordinate with regional and national team members to undertake monitoring of project activities;
- J Support the RPM to develop quarterly, annual and project end reports on project activities.

Stakeholder Engagement

-) Coordinate development and annual updating of the ATSEA-2 stakeholder engagement plan in coordination with the ATSEA-2 communication Specialist and other RPMU officers, ensuring that related initiatives are integrated into the annual regional work plan and the annual national work plans for Indonesia, Timor-Leste and Papua New Guinea.

V. QUALIFICATIONS AND SKILLS REQUIRED

- Education:** At least a Master's degree in Law, Economics, International Development/Relations, Environmental Sciences or a related field. PhD preferred.
- Experience:** At least ten years of development work experience related to policy work and institutional capacity building, preferably in the Arafura and Timor Seas area.
- Practical experience in policy assessments and harmonization and the drafting of project relevant policies and bylaws is essential.
- Familiarity with the policies, programs and operating styles of local and national governments of the assigned countries is required.
- Languages:** Fluency in the English language, with effective oral and written communication skills. Ability to speak Bahasa is essential. Portuguese, Tetun, and/or Tok Pisin would be an asset.
- IT Skills:** Proficiency in the use of various software applications (MS Word, MS Excel, MS Project, and Financial Systems) and adequate knowledge and practical experience in handling web- based management systems.

FINANCE / PROCUREMENT OFFICER (NATIONAL)

I. POSITION INFORMATION

Post Title: **Finance / Procurement Officer (National)**

II. ORGANIZATIONAL CONTEXT

Under the supervision of the Regional Project Manager (RPM) of the ATSEA-2 Project, the Finance / Procurement Officer (FPO) is responsible for the effective execution of financial services and processes of the ATSEA-2 project and transparent utilization of financial resources. The FPO promotes a client-oriented approach consistent with the prevailing rules and regulations. The FPO will assist all National Coordination Units on the preparation and implementation of the budget, ensuring that all funds are spent in line with approved work plans. Other key tasks include the reporting of expenses, preparing for audit, dealing with cash advance requests, and generally ensuring solid fiduciary management of the project.

III. KEY FUNCTIONS / KEY RESULTS

Summary of key functions:

-) Implement operational strategies;
-) Install the project's financial systems and procedures, in accordance with UNDP's existing guidelines and national execution;
-) Orient project staff on the use of the project's financial systems and procedures;
-) Manage cash advance requests, including budget preparation and approval, and liaise both with UNDP Country Office and external party to ensure timely cash disbursement and accurate recording of all cash advance requests;
-) Responsible for accuracy of funding requests and expenditures, completeness of documentation and availability of funding resources;
-) Monitor cash advance settlement to ensure smooth operations of cash advance request;
-) Manage petty cash to ensure adequate cash for day-to-day operations;
-) Provide accounting and administrative support to Finance Officer and

Key Functions

-) Manage day to day operation of the project's finance affairs and associated functions to ensure smooth running operation of the project's finance aspects;
-) Closely monitor the operation of the projects budget and maintain project accounts with current information while ensuring that the budget is used in accordance with the approved Work Plans and budgets;
-) Monitor projects expenditure (commitment and disbursement) based on project records;
-) Ensure full compliance with the prevailing rules and regulations of financial processes, financial records and reports and audit follow up, including implementation of an effective internal control framework;

- J Maintain solid understanding of Accounting Principles and Audit Procedures to ensure that all financial transactions are in line with the prevailing corporate guidelines;
- J Review and clarify cash advance request budget before being approved by National Project Coordinator;
- J Process cash advance request in a timely manner including liaising with UNDP Country Office and external party to solve any issues hindering the cash disbursement;
- J Maintain good coordination with UNDP administration and procurement staff to raise e-requisition and purchase order for cash advance request;
- J Maintain monitoring system to ensure all cash advance requests submitted to finance are processed;
- J Submit cash advance settlements to country office within two weeks after the activity ends;
- J Monitor cash advance settlements and raise early warning to avoid overdue outstanding settlement;
- J Ensure good quality of cash advance settlement by monitoring complete actual receipts and accurate calculations;
- J Ensure timely and accurate recording and reporting of total expenses and unused funds;
- J Ensure all petty cash claims are certified and correctly claimed with complete actual receipt;
- J Replenish petty cash in timely manner to ensure adequate cash for daily operations;
- J Perform monthly cash count;
- J Review sub-contractors invoices and supporting documentation to ensure that services have been adequately provided;
- J Maintain proper control of the supporting documents for payments and financial reports for ATSEA-2 project, including the preparation of all types of vouchers;
- J Maintain the internal expenditures control system which ensures that vouchers processed are matched and completed, transactions are correctly recorded, travel claims, other entitlements are duly processed;
- J Perform budget revisions for the project as required;
- J Take timely corrective actions as required to resolve financial data issues;
- J Organize and facilitate trainings for the operations/ projects staff on finance procedures;
- J Prepare quarterly and annual work progress reports in consultation with the RPM, reporting on progress in achieving project targets. The Quarterly Progress Reports (QPRs) would provide a brief summary of the status of input procurement and input delivery, explain variances from the work plan, and present work plans for successive quarter for review and endorsement. Annual Progress Reports (APRs) would provide a more in-depth summary of work-in-progress, measuring the performance against both implementation and impact indicators. APRs would inform decision-making by the Project of the Project Management Board, which would evaluate whether any adjustment in approach is required A terminal report would be completed prior to the completion of the project detailing achievements and lessons learned;
- J Assist RPM with financial reporting and other tasks as required.

IV. QUALIFICATIONS AND SKILLS REQUIRED

Education: Bachelor Degree in Finance, Business or Public Administration. Specialized certification in Accounting and Finance would be desirable.

Experience: 4 years of progressively responsible finance experience is required at the national or international level. Experience in the usage of computers and office software packages (MS Word, Excel, etc.) and advance knowledge of spreadsheet and database packages, experience in handling of web based management systems.

Languages:) Fluency in written and spoken English and Bahasa is an absolute necessity;
) Ability to speak Portuguese, Tetun, and/or Tok Pisin would be an asset.

Other Requirements:) Demonstrated strong familiarity with UNDP development projects.
) Knowledge of and experience in supporting administration, finance and purchasing of humanitarian project will be highly desirable.
) Strong knowledge and solid experience in coordination of project management support are essential as well as ability to draft high quality correspondence on budget-related issues, briefing notes, graphic and statistical summaries, accounting spreadsheets, etc.
) Good inter-personal and team building skills.
) Full time availability for project management support duties is essential.
) Familiar with Government and UN/UNDP procedures would be desirable
) Advance computer skills required, knowledge of spreadsheet and database packages
) Experience in handling of web based management systems would be highly desirable.

IT Skills: Proficiency in the use of various software applications (MS Word, MS Excel, MS Project, and Financial Systems) and adequate knowledge and practical experience in handling web- based management systems.

ADMINISTRATIVE ASSISTANT (NATIONAL)

I. POSITION INFORMATION

Post Title: **Administrative Assistant (National)**

II. ORGANIZATIONAL CONTEXT

Under the supervision of the Regional Project Manager (RPM), the Administrative Assistant is responsible to support the project on a day-to-day basis to cover administration functions such as, HR, general office and general project administration.

III. KEY FUNCTIONS / KEY RESULTS

-) Assists in the coordination of project planning and preparation work for, typically, a medium-size and complex component of the project initiatives; monitors status of project proposals and receipt of relevant documentation for review and approval;
-) Compiles, summarizes, and presents basic information/data on specific project and related topics or issues;
-) Reviews project documents, especially cost plans/budgets, for completeness and compliance with relevant rules and procedures prior to submission for final approval and signature; identifies inconsistencies; distributes project documents to relevant parties upon approval;
-) Implement project standard operating procedures in line with the government and UNDP's regulations.
-) Preparation of budget revisions, support to the preparation of annual and quarterly work plans as well as project board meetings, audit, operational and financial closure of a project;
-) Support to the preparation of quarterly project reports, in line with the monitoring and reporting guidelines and presents it to the project assurance team on a timely manner;
-) Compiles, summarizes and enters data on project delivery; drafts related status reports, identifying shortfalls in delivery, budget overruns, etc., and brings to the attention of management;
-) To provide administrative support for preparation of high quality and results oriented progress reports.
-) Serves as focal point for administrative, HR, Security and office coordination of project implementation activities, involving extensive liaison with a diverse organizational units to initiate requests, obtain necessary clearances, process and follow-up on administrative actions, e.g. recruitment and appointment of personnel, travel arrangements, training/study tours, authorization of payments, disbursement of funds, procurement of equipment and services, security compliance, etc.;
-) Provision of general office assistance such as response to complex information requests and inquiries reviews, logs and routes incoming correspondence; establishment of filing system and maintenance files/records; organization of meetings, workshops; routine administrative tasks, including maintaining attendance records, assessing telephone billing, etc.;
-) Drafts correspondence on budget-related issues, periodic reports, briefing notes, graphic and statistical summaries, accounting spreadsheets, etc.

-) Updated database of the relevant public and development partners private sector, civil society and other stakeholders who are counterparts for the project;
-) In coordination with RPM, support documentation of the project activities as a tool to communicate results, deepen stakeholder knowledge and buy-in to the project, and resource mobilization for the project;
-) Participation in the trainings for the operations/ projects staff;
-) Synthesis of lessons learned and best practices in project support management function;
-) Contributions to knowledge networks and communities of practice.

IV. QUALIFICATIONS AND SKILLS REQUIRED

- Education: Bachelor degree in Accounting, Finance, Business, Public Administration, Economics, Political Sciences, Social Sciences, or other relevant fields of study would be desirable, but it is not a requirement.
- Experience: Minimum 3 years of professional experience, preferably in the field of development, administration, finance or purchasing for candidates with Bachelor Degree and 5 years for candidates with Diploma Degree. Some experiences in Coastal and Fisheries management, marine biodiversity and climate change mitigation and adaptation would be advantage.
- Language Requirements:) Fluency in written and spoken English and Bahasa is an absolute necessity;
) Ability to speak Portuguese, Tetun, and/or Tok Pisin would be an asset.
- Other Requirements:) Demonstrated strong familiarity with UNDP development projects.
) Knowledge of and experience in supporting administration of climate change projects will be highly desirable.
) Strong knowledge and solid experience in coordination of project management support are essential as well as ability to draft high quality correspondence on budget-related issues, briefing notes, graphic and statistical summaries, accounting spreadsheets, etc.
) Good inter-personal and team building skills.
) Full time availability for project management support duties is essential.
) Familiar with Government and UN/UNDP procedures would be desirable
) Up-to-date computer skills required, knowledge of spreadsheet and database packages
) Experience in handling of web based management systems would be highly desirable.

NATIONAL COORDINATORS (INDONESIA, TIMOR-LESTE, PAPUA NEW GUINEA)

I. POSITION INFORMATION

Post Title: **National Coordinator (National)**

II. ORGANIZATIONAL CONTEXT

Under the supervision of the Regional Project Manager (RPM), the National Coordinator is responsible for assisting and supporting the project implementation, monitoring the project work plan and the achievement of outputs and targets as approved by the Project Steering Committee in his/her assigned countries. The National Coordinator is also responsible for assisting RPM to ensure a clear and strategic support line between Regional Project Management Unit (RPMU) and the National Coordination Unit (NCU). She/he supports the RPM for organizing project implementation consistent with programme objectives engaging national counterparts and building reputation for quality design and reliable delivery of the ATSEA-2 Project. The National Coordinator supervises some project personnel and coordinates activities of other consultants.

III. KEY FUNCTIONS / KEY RESULTS

1. Ensures implementation of project strategies focusing on achievement of the following results:

- J Oversees the day-to day project implementation at the NCU and ensure achievement of targets as outlined in the project work plan;
- J Effective application of Result Based Management (RBM) tools and monitoring achievement of results;
- J Support the RPM to oversee and ensure the overall quality of project management, reporting, and monitoring;
- J Ensure efficient use of resources and report it in transparent and accountable manner;
- J Monitoring and analysis of the project environment, timely readjustments in portfolio;
- J Responsible for managing critical issues and provide solutions to the overall processes of program implementation;
- J Identify Expertise and prepare TORs for consultants, as necessary;
- J Establish and maintain good working relationship with the relevant public and development partners, CSOs, and other principal counterparts in the assigned countries for the ATSEA program;
- J Exercising quality control over the development and implementation of site level projects to make sure that these are aligned with national policies and priorities, and ATSEA 2 objectives and targets and closely monitor the progress, results and impacts of site level efforts through monitoring, evaluation and preparation of site level progress reports. Contribution to national reports will also be required.
- J Overseeing the development of annual site based work plans and budgets, financial allocations and expenditures for relevant Components in the Project Document activities in the assigned countries, and ensuring most effective use of the resources.

2. Ensures effective implementation and monitoring of the project, tracking use of financial resources focusing on the achievement of the following results:

- J Analysis of the situation in the project, identification of operational and financial problems, development of solutions in coordination with RPM and programme staff of UNDP
- J Provision of strategic direction and substantive guidance to project team and consultants to perform their role under the ATSEA project in consultation with RPM;
- J Leading regular coordination meetings and dialogues with donors and other relevant stakeholders in the assigned countries;
- J Preparation of annual and quarterly work plans/reports; elaboration of action plans; provision of technical advice to working groups, as appropriate, in finding information on specific topics (seeking donor and government support for technical inputs as directed by the RPM);
- J Timely submission of quarterly/progress reports to the RPM and the government partners in the assigned country, donors, counterparts and other relevant stakeholders, along with other reports which may be required, such as media briefings;
- J Coordinate and liaise with Specialists who facilitate delivery activities under each project components;
- J Create a standard operating procedure, including monitoring and evaluation mechanism and quality standards of performance, as appropriate, to measure the achievement of activities;
- J Along with the Specialists, constantly identify challenges and provide recommendations to manage risk of the project and ensure the smooth implementation;
- J Creation and coordination of partnerships with development partners, government institutions, private sector, civil society, etc., in consultation with RPM;
- J Develop partnership with development partners where they can support and share good practices related to the functions of working groups;
- J Sound contributions to knowledge networks and communities of practice.
- J Perform other related duties as directed by RPM

IV. QUALIFICATIONS AND SKILLS REQUIRED

Education: At least a master's degree in Environmental Science, Coastal Area Management, Planning, governance, International Relations, or any related social science discipline.

Experience: At least five years or more development work experience, or work in the Arafura and Timor Seas area, preferably with field exposure. Practical experience in coastal area management is essential.

Familiarity with the policies, programs and operating styles of local and national governments of the assigned countries.

Languages: Fluency in the language of the respective beneficiary country, and oral and written professional proficiency in English. Ability to speak Bahasa, Portuguese, Tetun, and/or Tok Pisin would be an asset.

IT Skills: Proficiency in the use of various software applications (MS Word, MS Excel, MS Project, and Financial Systems) and adequate knowledge and practical experience in handling web- based management systems.

SITE MOBILIZERS (NATIONAL)

I. POSITION INFORMATION

Post Title: **Site Mobilizer (National)**

II. ORGANIZATIONAL CONTEXT

Under the supervision of the ATSEA-2 National Coordinator, the Site Mobilizer is responsible for the effective planning, management, monitoring and evaluation of ATSEA-2 program development and implementation in his/her assigned country, e.g., from work planning to technical support for the implementation to M&E reporting of ATSEA related activities.

III. KEY FUNCTIONS / KEY RESULTS

-) Facilitating implementation of work plans, covering site level activities under Component 2.
-) Organizing and facilitating the conduct of various capacity development, training and knowledge sharing initiatives within the assigned country at the site level, in accordance with the relevant outcomes in Component 2 of the Project Document, to ensure that the concerned managers and staff, local NGOs, community groups, etc., have the necessary skills, competence and support to implement the scheduled work/projects.
-) Exercising quality control over the development and implementation of site level projects to make sure that these are aligned with national policies and priorities, and ATSEA-2 objectives and targets and closely monitor the progress, results and impacts of site level efforts through monitoring, evaluation and preparation of site level progress reports. Contribution to national reports will also be required.
-) Supporting the development of annual site based work plans and budgets, financial allocations and expenditures for relevant Component 2 activities in the assigned countries, and ensuring most effective use of the resources.
-) Co-organizing and participating actively in regular stakeholder meetings and project review sessions at site level.
-) Leading periodic monitoring field visits to provide performance feedback to the national coordinator.
-) Identifying and promoting opportunities for public-private partnership arrangements, involving national, provincial and local governments, donors, international organizations and the corporate/business sector, replication of best technologies/practices and investments in biodiversity conservation, sustainable fisheries and alternative livelihoods, ICM, pollution reduction and climate change adaptation/ecosystem based adaptation facilities and services.
-) Keeping abreast of local environmental concerns and priorities as well as the socio-economic conditions and trends and relating their impact on ATSEA and its site based activities in the assigned country, and implications for the broader regional program.

IV. QUALIFICATIONS AND SKILLS REQUIRED

Education: Environmental management, social science, public administration completed at higher secondary level.

Experience: At least 5 years or more development work experience, preferably in the ATS region, and with community or field exposure. Practical experience in natural resource management is essential.

Familiarity with the policies, programs and operating styles of local, provincial and national governments that are participating in the project.

Language Requirement: Fluency in the local language, and proficiency in English

IT Skills: Proficiency in the use of various software applications (MS Word, MS Excel, MS Project,) and adequate knowledge and practical experience in handling web- based management systems.

GENDER EQUITY AND SOCIAL INCLUSION COORDINATOR (LONG-TERM CONSULTANT)

I. POSITION INFORMATION

Post Title: **Gender Equity and Social Inclusion Coordinator (Long-Term Consultant)**

II. ORGANIZATIONAL CONTEXT

The Gender Equity and Social Inclusion (GESI) Coordinator will be a long-term consultant who will ensure implementation of, and compliance with, the United Nations Development Program's (UNDP) safeguard requirements and the gender equity and social inclusion action plan for ATSEA-2 (**Annex D**). The GESI Coordinator will be responsible for overseeing the implementation of the specific women's empowerment activities (outlined in **Annex C**), monitoring GESI progress on all component activities according to the action plan and project results framework, and ensuring/publicizing the representation by key stakeholders, including communities, at project stakeholder forums, with a special focus on climate change adaptation, gender issues and marginalized groups in activity design and implementation.

III. KEY FUNCTIONS / KEY RESULTS

-) Strengthen the capacity of the Project Management Unit (PMU), project long-term consultants and government stakeholders, through the development and implementation of annual GESI training modules and on-the-job workshops highlighting GESI issues in the corresponding year's annual work plan and supporting the implementation of recommendations as required;
-) Assist the PMU in implementing the GESI action plan and complying with the UNDP social safeguard requirements, and other related documents;
-) Ensure adequate participation of women, local people, and other marginalized groups at the regional stakeholder forum and on the municipal/district ICM committees;
-) Oversee the implementation of the specific women's empowerment activities (as defined in **Annex C** on GESI and detailed in **Annex A** on community activities), including development of a concept note for the activity, identifying an implementation mechanism and developing Terms of Reference for consultants if necessary, monitoring progress in coordination with the site mobilizers and reporting on activity implementation;
-) Assist the consultant/contractor conducting Community Vulnerability and Adaptation Assessments under Output 1.3.1 with the gender and social inclusion aspects;
-) Assist in prioritizing and implementing gender-equitable climate change adaptation measures as a part of the Integrated Coastal Management (ICM) activities;
-) Assist in training and knowledge sharing activities, to ensure the broad participation of women through training set-up and arrangements; particularly in relation to Output 1.2.2, review the capacity assessments and capacity building programs for all countries to ensure adequate coverage of the needs and benefits of gender-equity and social inclusion, providing specific recommendations where lacking and guidance on their revision;

-) Coordinate with the PMU and other consultants to identify areas and design strategies for strengthening gender-equity and socially inclusive provisions in the implementation of various project components and activities;
-) Advise/Support the RBM Specialist, national and site mobilizers on data collection for monitoring and reporting on GESI activities, including identification of gender-disaggregated performance targets and indicators for individual activities, and development and management of a comprehensive database to monitor indicators and results based on the GESI Action Plans;
-) Assist the PMU in preparing social safeguard reports as part of quarterly project progress reports;
-) Continuously update Gender Action Plan to effectively integrate gender concerns into the formulation and implementation of project activities;

IV. QUALIFICATIONS AND SKILLS REQUIRED

The GESI Coordinator will have regional experience and substantial knowledge of the social and gender issues facing Indonesia, Timor-Leste, and/or Papua New Guinea. The GESI Coordinator will also have substantial experience (>5 years) in community development and communications work, with a degree in a related area. The GESI coordinator will also be conversant with the monitoring of climate resilience, as well as adaptation and disaster risk reduction indicators. The Specialist will have a degree in a related field, and will be fluent in English and Bahasa Indonesia, with knowledge of Tetun and/or Tok Pisin desirable.

COMMUNICATIONS AND KNOWLEDGE MANAGEMENT SPECIALIST (LONG-TERM CONSULTANT)

I. POSITION INFORMATION

Post Title: **Gender Equity and Social Inclusion Coordinator (Long-Term Consultant)**

II. ORGANIZATIONAL CONTEXT

The Communications and Knowledge Management Specialist is a long-term consultant responsible for the overall implementation of Output 3.1.2. Working closely with the Project Management Unit's (PMU) Regional Project Manager, the Biodiversity Specialist, the Results-Based Management (RBM) Specialist and the Gender and Social Inclusion Coordinator, develop and implement the project's communications and outreach strategy (as outlined in **Annex D**). The Communications and Knowledge Management Specialist will provide skilled guidance to the PMU on the packaging and dissemination of project knowledge, ensuring that project-generated information and understanding are effectively delivered to the most relevant audiences, enabling them to best understand and make use of it.

III. KEY FUNCTIONS / KEY RESULTS

Specifically, the Communications and Knowledge Management Specialist will:

- J Develop the ATSEA-2 communications strategy and related annual work plans to ensure project initiatives are promoted and that the specific aims of the project are regularly and clearly communicated to the relevant audiences in Indonesia, Timor-Leste and Papua New Guinea;
- J Further refine and design the ATSEA brand, developing consistent communications materials and tools, including presentation and reporting templates;
- J Guide the development and dissemination of outreach and promotional materials with consistent messaging, such as brochures, fact sheets, presentations and quarterly bulletins, and take the lead of designing event materials, briefing packets and press releases as needed;
- J Enhance the existing ATSEA website, ensuring links to social media and other relevant knowledge platforms, so that it may better facilitate implementation of the ATSEA-2 communications strategy;
- J Develop and maintain good communications with all project teams, development partners, and government counterparts to facilitate a participatory communication process for designing and implementing project activities and to ensure uptake of international best practices in implementing communication and knowledge sharing strategies around project activities;
- J Coordinate with the PMU and other consultants, specifically the GESI Coordinator, to identify areas to improve outreach in the implementation of various project components and activities in order to facilitate achievement of project objectives;

- J Lead the development and execution of local, national and/or regional marine biodiversity, sustainable fisheries, climate change adaptation campaigns to reach and educate the general public and specifically industry;
- J Advise/Support the RBM Specialist, national and site mobilizers on data collection for monitoring of outreach activities and related quarterly and annual progress reporting;
- J Continuously update the project's communications strategies and plans to support ongoing implementation of project activities;
- J Assist and cooperate with other specialist members of the PMU under the direction of the Regional Project Manager.

IV. QUALIFICATIONS AND SKILLS REQUIRED

The Communications and Knowledge Management Specialist will have considerable regional experience (>5years) and substantial knowledge on the ideal communications and outreach mechanisms for Indonesia, Timor-Leste and/or Papua New Guinea. The Specialist will have a degree in a related field, and will be fluent in English and Bahasa Indonesia, with knowledge of Tetun and/or Tok Pisin desirable. It is highly desirable that the Specialist have significant knowledge of the challenges of protecting marine biodiversity and other resources in the region, including both those induced by human intervention as well as the changing climate.

Annex I

Workplan

PROJECT WORKPLAN: Implementation of the Arafura and Timor Seas Regional and National Strategic Action Programs (ATSEA-2)

Workplan for Regional Activities

Regional: Component 1 (Outcomes 1.1 and 1.2)	2017				2018				2019				2020				2021					
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Component 1: Regional-National-Local Governance for LME Management																						
Outcome 1.1: Regional and national cooperation mechanisms in place																						
Output 1.1.1: RCC and ATS Secretariat created																						
Activity 1.1.1-1: Establish Interim RCC																						
Activity 1.1.1-2: Undertake annual RCC meetings																						
Activity 1.1.1-3: Carry out regional governance analysis					■																	
Activity 1.1.1-4: Undertake national consultations					■																	
Activity 1.1.1-5: Develop model for ATS governance mechanism									■													
Activity 1.1.1-6: Conduct Ministerial Meeting													●									
Output 1.1.2: Strengthen stakeholder participation																						
Activity 1.1.2-1: Facilitate SPF formation																						
Activity 1.1.2-2: Develop a TOR for the SPF			■																			
Milestone: TOR for SPF approved by RCC			●																			
Activity 1.1.2-3: Conduct annual SPF meetings																						
Output 1.1.3: Improved inter-sectoral coordination																						
Activity 1.1.3-1: Undertake a regional institutional review					■																	
Output 1.1.4: Financial mechanisms for SAP/NAP implementation																						
Activity 1.1.4-1: Develop 5-yr cost estimate and financing plan for SAP									■													
Activity 1.1.4-2: Develop an investment and financing strategy for RCC									■													
Activity 1.1.4-3: Organize a donor workshop													●									
Outcome 1.2: Strengthened institutional and individual capacities																						
Output 1.2.1: Strengthening regulatory and institutional frameworks																						
Activity 1.2.1-1: Carry out regionalism assessment					■																	

Regional: Component 1 (Outcomes 1.3 and 1.4)	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 1: Regional-National-Local Governance for LME Management	[Timeline bar]																			
Outcome 1.3: Better understanding of climate change impacts	[Timeline bar]																			
Output 1.3.1: Improved understanding of CC impacts on ATS ecosystems	[Timeline bar]																			
Activity 1.3.1-1: Conduct a regional review of current CC studies on ATS	[Timeline bar]																			
Activity 1.3.1-2: Prepare a detailed work plan																				
Activity 1.3.1-3: Conduct an assessment of CC impacts																				
Activity 1.3.1-4: Prepare a decision-making guidance document																				
Output 1.3.2: Climate change case study, regional workshop																				
Activity 1.3.1-5: Prepare a case study for a local fishery/community																				
Activity 1.3.1-6: Organize a regional CC workshop																				
Outcome 1.4: Approved updated SAP and NAPs																				
Output 1.4.1: Updated TDA endorsed by RCC																				
Activity 1.4.1-1: Update TDA with CC and PNG information																				
Activity 1.4.1-2: Organize a regional TDA validation workshop																				
Milestone: TDA endorsed by RCC																				
Output 1.4.2: Updated SAP supported by Ministerial Declaration																				
Activity 1.4.2-1: Update ATS SAP																				
Activity 1.4.2-2: Facilitate regional Ministerial Meeting																				
Milestone: Updated SAP endorsed through Ministerial Declaration																				

Regional: Component 2 (Outcomes 2.1 and 2.2)	2017				2018				2019				2020				2021							
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Component 2: Improving LME Carrying Capacity																								
Outcome 2.1: Improved fisheries management																								
Output 2.1.1: EAFM implemented targeting women and men fishers																								
Activity 2.1.1-1: Develop EAFM work plan	■																							
Activity 2.1.1-2: Carry out profiling of red snapper fishery					■																			
Activity 2.1.1-3: Develop and implement EAFM plan					■																			
Activity 2.1.1-4: Facilitate endorsement of the EAFM plan									■															
Milestone: Regional EAFM plan endorsed by RCC																	●							
Activity 2.1.1-5: Support EAFM training					■																			
Activity 2.1.1-6: Regional exchange on rights based management																	●							
Activity 2.1.1-7: Implement turtle bycatch release program													■											
Output 2.1.3: Supporting national and regional actions on IUU fishing																								
Activity 2.1.3-1: Prepare detailed work plan	■																							
Activity 2.1.3-2: Conduct regional IUU fishing assessment					■																			
Activity 2.1.3-3: Undertake regional policy review					■																			
Activity 2.1.3-4: Participate in RPOA-IUU ATS regional sub-group meetings	■																							
Activity 2.1.3-5: Support developing tools on global record of vessels					■																			
Activity 2.1.3-6: Support MCS training									■															
Activity 2.1.3-7: Strengthen community based MCS													■											
Outcome 2.2: Reduced pollution improves ecosystem health																								
Output 2.2.1: Pollution hotspot analysis; supporting pollution control																								
Activity 2.2.1-1: Prepare detailed work plan	■																							
Activity 2.2.1-2: Consolidate regional pollution hotspot analysis					■																			
Activity 2.2.1-3: Organize a regional pollution workshop													●											
Activity 2.2.1-4: Regional exchange on oil spill response																	■							

Regional: Component 2 (Outcomes 2.3)	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 2: Improving LME Carrying Capacity	[Progress bar]																			
Outcome 2.3: Enhanced protection of marine biodiversity	[Progress bar]																			
Output 2.3.1: Supporting improved biodiversity information management	[Progress bar]																			
Activity 2.3.1-1: Prepare detailed work plan	[Progress bar]																			
Activity 2.3.1-2: Undertake desktop review and gap analysis					[Progress bar]															
Activity 2.3.1-3: Carry out ecosystem valuation									[Progress bar]											
Activity 2.3.1-4: Support strengthening of ATS information management					[Progress bar]															
Activity 2.3.1-5: Supporting mapping of critical habitats and hotspots									[Progress bar]											
Output 2.3.2: Designate new and strengthen management of MPA's	[Progress bar]																			
Activity 2.3.2-1: Prepare detailed work plan for activities under this output	[Progress bar]																			
Activity 2.3.2-2: Conceptualize and design regional MPA network					[Progress bar]															
Activity 2.3.2-3: Facilitate endorsement of the regional MPA network design									[Progress bar]											
Milestone: Regional MPA network design endorsed by RCC																	[Red dot]			
Activity 2.3.2-4: Prepare road map for eventual declaration of network													[Progress bar]							
Output 2.3.3: Regional action plan on protection of marine turtles	[Progress bar]																			
Activity 2.3.3-1: Prepare detailed work plan for activities under this output	[Progress bar]																			
Activity 2.3.3-2: Develop regional action plan on marine turtles					[Progress bar]															
Activity 2.3.3-3: Facilitate endorsement of the action plan									[Progress bar]											
Milestone: Regional marine turtles action plan endorsed by RCC																	[Red dot]			
Activity 2.3.3-4: Regional exchange on marine turtles protection																	[Progress bar]			

Workplan for Indonesia Activities:

Indonesia: Component 1	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 1: Regional-National-Local Governance for LME Management																				
Outcome 1.1: Regional and national cooperation mechanisms in place																				
Output 1.1.2: Strengthen stakeholder participation																				
Activity 1.1.2-4: Facilitate national SPF representation	■																			
Activity 1.1.2-5: Advocate collaboration with NIMC and other forums	■																			
Activity 1.1.2-6: Conduct annual coordination meetings	■																			
Activity 1.1.2-7: Support establishment of FMP 718 management body					■															
Output 1.1.3: Improved inter-sectoral coordination																				
Activity 1.1.3-2: Conduct a national institutional assessment				■																
Activity 1.1.3-3: Develop a TOR for the NIMC					■															
Milestone: NIMC endorsed by NFA Managing Director							●													
Activity 1.1.3-4: Facilitate annual NIMC meetings					■															
Activity 1.1.3-5: Advocate coordination with other committees/forums					■															
Output 1.1.4: Financial mechanisms for SAP/NAP implementation																				
Activity 1.1.4-4: Develop 5-yr cost estimate and financing plan for NAP													■							
Outcome 1.2: Strengthened institutional and individual capacities																				
Output 1.2.1: Strengthening regulatory and institutional frameworks																				
Activity 1.2.1-2: Conduct a national regulatory framework assessment				●																
Activity 1.2.1-3: Facilitate enabling policies for advancement of NAP				●																
Output 1.2.2: Training of trainers on integrated approaches																				
Activity 1.2.2-1: Undertake a capacity assessment				■																
Activity 1.2.2-2: Develop a capacity building program					■															
Activity 1.2.2-3: Roll out training of trainers program					■															
Activity 1.2.2-4: Adapt key training materials to local social context					■															
Outcome 1.4: Approved updated SAP and NAPs																				
Output 1.4.3: Update SAP/NAPs mainstreamed into national frameworks																				
Activity 1.4.3-1: Prepare a NAP													■							
Activity 1.4.3-2: Organize NAP validation workshop																			●	
Milestone: NAP approved																			●	
Activity 1.4.3-3: Advocate for mainstreaming NAP priority actions	■																			

Indonesia: Component 2 (Outcome 2.1)	2017				2018				2019				2020				2021							
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Component 2: Improving LME Carrying Capacity																								
Outcome 2.1: Improved fisheries management																								
Output 2.1.1: EAFM implemented targeting women and men fishers																								
Activity 2.1.1-8: Develop a work plan for EAFM in Aru and Merauke	■																							
Activity 2.1.1-9: Carry out profiling of the fisheries in Aru and Merauke				■																				
Activity 2.1.1-10: Develop EAFM plans for Aru and Merauke							■																	
Activity 2.1.1-11: Facilitate endorsement of EAFM plans									■															
Milestone: Draft Provincial PERDA for EAFM plans											●													
Activity 2.1.1-12: Support EAFM training for resource managers							■																	
Activity 2.1.1-13: Support pilot implementation of data collection program							■																	
Activity 2.1.1-14: Strengthening women's forum in Aru									■															
Activity 2.1.1-15: Implement improved gear tech. and handling practices									■															
Output 2.1.2: Supporting fisheries improvement projects																								
Activity 2.1.2-1: Prepare detailed work plan for activities under this output	■																							
Activity 2.1.2-2: Conduct value chain analyses				■																				
Activity 2.1.2-3: Develop fisheries profiles							■																	
Activity 2.1.2-4: Facilitate legal framework for the FIP's									■															
Milestone: FIPs endorsed by MMAF DG											●													
Activity 2.1.2-5: Develop guidance tools for the target fisheries									■															
Activity 2.1.2-6: Support training for relevant stakeholders									■															
Activity 2.1.2-7: Establish electronic database on traceability and trade							■																	
Activity 2.1.2-8: Support pre-assessments based on MSC guidelines																	■							
Output 2.1.3: Supporting national and regional actions on IUU fishing																								
Activity 2.1.3-8: Conduct IUU fishing assessment for FMA 718				■																				
Activity 2.1.3-9: Conduct IUU fishing assessments in Aru and Merauke							■																	
Activity 2.1.3-10: Support implementation of R-VIA program									■															
Milestone: Nat'l regulation on IUU fishing endorsed by MMAF DG													●											
Activity 2.1.3-11: Strengthen community based MCS in Aru and Merauke													■											

Indonesia: Component 2 (Outcome 2.3)	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 2: Improving LME Carrying Capacity	[Timeline bar]																			
Outcome 2.3: Enhanced protection of marine biodiversity	[Timeline bar]																			
Output 2.3.1: Supporting improved biodiversity information management	[Timeline bar]																			
Activity 2.3.1-6: Identify priority marine and coastal conservation areas	[Timeline bar]																			
Output 2.3.2: Designate new and strengthen management of MPA's	[Timeline bar]																			
Activity 2.3.2-5: Support updating MPA management plan (SE Aru]	[Timeline bar]																			
Activity 2.3.2-6: Support development of financial sustainability plan	[Timeline bar]																			
Activity 2.3.2-7: Organize donor workshop	[Timeline bar]																			
Activity 2.3.2-8: Support implementation of updated management plan	[Timeline bar]																			
Activity 2.3.2-9: Support preparation of documentation for upgrading MPA	[Timeline bar]																			
Milestone: MMAF DG Decree, MPA effectiveness upgrade	[Timeline bar]																			
Activity 2.3.2-10: Support legal framework for MPA (Kolepon)	[Timeline bar]																			
Activity 2.3.2-11: Capacity building for management authority staff	[Timeline bar]																			
Activity 2.3.2-12: Undertake gap analysis of baseline data	[Timeline bar]																			
Activity 2.3.2-13: Support design of MPA	[Timeline bar]																			
Milestone: MMAF Ministerial Decree, upgraded Kolepon MPA	[Timeline bar]																			
Activity 2.3.2-14: Facilitate endorsement of MPA management plan	[Timeline bar]																			
Activity 2.3.2-15: Develop financial sustainability plan	[Timeline bar]																			
Activity 2.3.2-16: Undertake feasibility study for ecotourism	[Timeline bar]																			
Activity 2.3.2-17: Organize donor workshop	[Timeline bar]																			
Activity 2.3.2-18: Implement pilot implementation with local communities	[Timeline bar]																			
Output 2.3.3: Regional action plan on protection of marine turtles	[Timeline bar]																			
Activity 2.3.3-5: Support implementation of marine turtles plan	[Timeline bar]																			
Activity 2.3.3-6: Feasibility study on ecotourism/alternative livelihoods	[Timeline bar]																			
Activity 2.3.3-7: Implement pilot project on ecotourism	[Timeline bar]																			

Indonesia: Component 2 (Outcomes 2.2 and 2.4)	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 2: Improving LME Carrying Capacity	[Timeline bar]																			
Outcome 2.2. Reduced pollution improves ecosystem health	[Timeline bar]																			
Output 2.2.1: Pollution hotspot analysis; supporting pollution control	[Timeline bar]																			
Activity 2.2.1-5: Undertake national level pollution hotspot analysis	[Timeline bar]																			
Activity 2.2.1-6: Develop pollution management plan for Rote Ndao	[Timeline bar]																			
Activity 2.2.1-7: Training on oil spill response and preparedness	[Timeline bar]																			
Outcome 2.4: ICM incorporating climate change adaptation	[Timeline bar]																			
Output 2.4.1: Supporting ICM planning and implementation	[Timeline bar]																			
Activity 2.4.1-1: Prepare detailed work plan for activities in this output	[Timeline bar]																			
Activity 2.4.1-2: Undertake gap analysis	[Timeline bar]																			
Activity 2.4.1-3: Carry out CC vulnerability assessment supporting ICM	[Timeline bar]																			
Activity 2.4.1-4: Support ICM planning for Rote Ndao	[Timeline bar]																			
Milestone: Kabupaten Indicative Document for ICM plan	[Timeline bar with red dot]																			
Activity 2.4.1-5: Improved market access for women seaweed farmers	[Timeline bar]																			
Activity 2.4.1-6: Management training for home based business women	[Timeline bar]																			
Output 2.4.3: Design and implement EbA actions in Rote Ndao in Indonesia	[Timeline bar]																			
Activity 2.4.3-1: Develop EbA plans	[Timeline bar]																			
Activity 2.4.3-2: Provide capacity building on EbA approaches	[Timeline bar]																			
Activity 2.4.3-3: Implement EbA plans	[Timeline bar]																			
Activity 2.4.3-4: Support alternative livelihoods on repair of solar water units	[Timeline bar]																			

Workplan for Timor-Leste Activities:

Timor-Leste: Component 1	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 1: Regional-National-Local Governance for LME Management	[Timeline bar]																			
Outcome 1.1: Regional and national cooperation mechanisms in place	[Timeline bar]																			
Output 1.1.2: Strengthen stakeholder participation	[Timeline bar]																			
Activity 1.1.2-8: Facilitate national SPF representation	[Timeline bar]																			
Activity 1.1.2-9: Advocate collaboration with NIMC and other forums	[Timeline bar]																			
Output 1.1.3: Improved inter-sectoral coordination	[Timeline bar]																			
Activity 1.1.3-6: Conduct a national institutional assessment	[Timeline bar]																			
Activity 1.1.3-7: Develop a TOR for the NIMC	[Timeline bar]																			
Milestone: NIMC endorsed by NFA Managing Director	[Timeline bar]																			
Activity 1.1.3-8: Facilitate annual NIMC meetings	[Timeline bar]																			
Activity 1.1.3-9: Advocate coordination with other committees/forums	[Timeline bar]																			
Output 1.1.4: Financial mechanisms for SAP/NAP implementation	[Timeline bar]																			
Activity 1.1.4-5: Develop 5-yr cost estimate and financing plan for NAP	[Timeline bar]																			
Outcome 1.2: Strengthened institutional and individual capacities	[Timeline bar]																			
Output 1.2.1: Strengthening regulatory and institutional frameworks	[Timeline bar]																			
Activity 1.2.1-4: Conduct a national regulatory framework assessment	[Timeline bar]																			
Activity 1.2.1-5: Facilitate enabling policies for advancement of NAH	[Timeline bar]																			
Activity 1.2.1-6: Support development of South Coast Development Plan	[Timeline bar]																			
Output 1.2.2: Training of trainers on integrated approaches	[Timeline bar]																			
Activity 1.2.2-5: Undertake a capacity assessment	[Timeline bar]																			
Activity 1.2.2-6: Develop a capacity building program	[Timeline bar]																			
Activity 1.2.2-7: Roll out training of trainers program	[Timeline bar]																			
Activity 1.2.2-8: Adapt key training materials to local social context	[Timeline bar]																			
Outcome 1.4: Approved updated SAP and NAPs	[Timeline bar]																			
Output 1.4.3: Update SAP/NAPs mainstreamed into national frameworks	[Timeline bar]																			
Activity 1.4.3-4: Prepare a NAP	[Timeline bar]																			
Activity 1.4.3-5: Organize NAP validation workshop	[Timeline bar]																			
Milestone: NAP approved	[Timeline bar]																			
Activity 1.4.3-6: Advocate for mainstreaming NAP priority actions	[Timeline bar]																			

Timor-Leste: Component 2 (Outcomes 2.1 and 2.2)	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 2: Improving LME Carrying Capacity																				
Outcome 2.1: Improved fisheries management																				
Output 2.1.1: EAFM implemented targeting women and men fishers																				
Activity 2.1.1-16: Carry out stock assessment of mackerel fishery																				
Activity 2.1.1-17: Develop EAFM plan for mackerel fishery																				
Milestone: EAFM plan approved by MAF DG																				
Activity 2.1.1-18: Establish a fisheries advisory committee																				
Activity 2.1.1-19: Support EAFM training for resource managers																				
Activity 2.1.1-20: Support capacity building among fishers																				
Output 2.1.3: Supporting national and regional actions on IUU fishing																				
Activity 2.1.3-12: Facilitate implementation of NPOA-IUU plan																				
Activity 2.1.3-13: Conduct IUU fishing assessment																				
Activity 2.1.3-14: Support training on community based MCS																				
Activity 2.1.3-15: Support training of enumerators and analysts																				
Outcome 2.2: Reduced pollution improves ecosystem health																				
Output 2.2.1: Pollution hotspot analysis; supporting pollution control																				
Activity 2.2.1-8: Undertake national level pollution hotspot analysis																				
Activity 2.2.1-9: Develop pollution management plan for Manatuto																				
Activity 2.2.1-10: Undertake pollution awareness campaign																				
Activity 2.2.1-1: Training on oil spill response and preparedness																				

Timor-Leste: Component 2 (Outcome 2.3)	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 2: Improving LME Carrying Capacity	[Timeline bar]																			
Outcome 2.3: Enhanced protection of marine biodiversity	[Timeline bar]																			
Output 2.3.1: Supporting improved biodiversity information management	[Timeline bar]																			
Activity 2.3.1-7: Identify priority marine and coastal conservation areas	[Timeline bar]																			
Output 2.3.2: Designate new and strengthen management of MPA's	[Timeline bar]																			
Activity 2.3.2-19: Carry out scoping study for proposed MPA	[Timeline bar]																			
Activity 2.3.2-20: Support design of MPA	[Timeline bar]																			
Milestone: MPA approved through Ministerial Diplom	[Timeline bar with red dot]																			
Activity 2.3.2-21: Capacity building for management authority staff	[Timeline bar]																			
Activity 2.3.2-22: Facilitate endorsement of management plan	[Timeline bar]																			
Activity 2.3.2-23: Develop financial sustainability plan for new MPA	[Timeline bar]																			
Activity 2.3.2-24: Organize donor workshop	[Timeline bar]																			
Activity 2.3.2-25: Support strengthening of NKS management plan	[Timeline bar]																			
Activity 2.3.2-26: Develop updated financial sustainability plan	[Timeline bar]																			
Milestone: NKS financial sustainability plan approved by MAF Minister	[Timeline bar with red dot]																			
Activity 2.3.2-27: Organize donor workshop	[Timeline bar]																			
Activity 2.3.2-28: Implement LMMA activities with existing group in Com	[Timeline bar]																			
Output 2.3.3: Regional action plan on protection of marine turtles	[Timeline bar]																			
Activity 2.3.3-8: Support improvement of ecotourism in Com	[Timeline bar]																			
Activity 2.3.3-9: Support trials of bycatch reduction	[Timeline bar]																			
Activity 2.3.3-10: Support development of crocodile management plan	[Timeline bar]																			

Timor-Leste: Component 2 (Outcome 2.4)	2017				2018				2019				2020				2021					
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Component 2: Improving LME Carrying Capacity																						
Outcome 2.4: ICM incorporating climate change adaptation																						
Output 2.4.1: Supporting ICM planning and implementation																						
Activity 2.4.1-7: Support baseline assessments for Barique					■																	
Activity 2.4.1-8: Carry out CC vulnerability assessment supporting ICM							■															
Activity 2.4.1-9: Support ICM planning for Barique	■																					
Milestone: ICM plan approved by MAF DG															●							
Activity 2.4.1-10: Provide capacity building support					■																	
Activity 2.4.1-11: Pilot implementation of fish feed production or sourcing							■															
Activity 2.4.1-12: Support women's cooperative for sale of local fish							■															
Output 2.4.2: Design and implement CCA actions in Manatuto in Timor-Leste													■									
Activity 2.4.2-1: Assess CCA options including an EI Niño impact assessment									■													
Activity 2.4.2-2: Implement drought resilient home gardens									■													
Activity 2.4.2-3: Implement mangrove restoration or other CCA action									■													

Workplan for Papua New Guinea Activities:

Papua New Guinea: Component 1	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 1: Regional-National-Local Governance for LME Management	[Timeline bar spanning all quarters from 2017 to 2021]																			
Outcome 1.1: Regional and national cooperation mechanisms in place	[Timeline bar spanning all quarters from 2017 to 2021]																			
Output 1.1.2: Strengthen stakeholder participation	[Timeline bar spanning all quarters from 2017 to 2021]																			
Activity 1.1.2-10: Carry out national stakeholder analysis	[Bar]																			
Activity 1.1.2-11: Advocate collaboration with NIMC and other forums	[Bar]																			
Activity 1.1.2-12: Support establishment of South Fly stakeholder committee							[Bar]													
Output 1.1.3: Improved inter-sectoral coordination	[Timeline bar spanning all quarters from 2017 to 2021]																			
Activity 1.1.3-10: Conduct a national institutional assessment				[Bar]																
Activity 1.1.3-11: Develop a TOR for the NIMC					[Bar]															
Milestone: NIMC endorsed by NFA Managing Director							[Red dot]													
Activity 1.1.3-12: Facilitate annual NIMC meetings					[Bar]															
Activity 1.1.3-13: Advocate coordination with other committees/forums					[Bar]															
Output 1.1.4: Financial mechanisms for SAP/NAP implementation	[Timeline bar spanning all quarters from 2017 to 2021]																			
Activity 1.1.4-6: Develop 5-yr cost estimate and financing plan for NAP													[Bar]							
Outcome 1.2: Strengthened institutional and individual capacities	[Timeline bar spanning all quarters from 2017 to 2021]																			
Output 1.2.1: Strengthening regulatory and institutional frameworks	[Timeline bar spanning all quarters from 2017 to 2021]																			
Activity 1.2.1-7: Conduct a national regulatory framework assessment				[Bar]																
Output 1.2.2: Training of trainers on integrated approaches	[Timeline bar spanning all quarters from 2017 to 2021]																			
Activity 1.2.2-9: Undertake a capacity assessment				[Bar]																
Activity 1.2.2-10: Develop a capacity building program					[Bar]															
Activity 1.2.2-11: Roll out training of trainers program							[Bar]													
Activity 1.2.2-12: Adapt key training materials to local social context							[Bar]													
Outcome 1.4: Approved updated SAP and NAPs	[Timeline bar spanning all quarters from 2017 to 2021]																			
Output 1.4.1: Updated TDA endorsed by RCC	[Timeline bar spanning all quarters from 2017 to 2021]																			
Activity 1.4.1-3: Collect biophysical and socioeconomic information					[Bar]															
Activity 1.4.1-4: Carry out legal and institutional assessment													[Bar]							
Milestone: TDA endorsed by National Project Board															[Red dot]					
Output 1.4.3: Update SAPNAPs mainstreamed into national frameworks	[Timeline bar spanning all quarters from 2017 to 2021]																			
Activity 1.4.3-7: Prepare a NAP													[Bar]							
Activity 1.4.3-8: Organize NAP validation workshop																	[Bar]			
Milestone: NAP approved																	[Red dot]			
Activity 1.4.3-9: Advocate for mainstreaming NAP priority actions																	[Bar]			

Papua New Guinea: Component 2 (Outcome 2.1)	2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 2: Improving LME Carrying Capacity	[Timeline bar]																			
Outcome 2.1: Improved fisheries management	[Timeline bar]																			
Output 2.1.1: EAFM implemented targeting women and men fishers	[Timeline bar]																			
Activity 2.1.1-21: Support EAFM training for resource managers	[Timeline bar]																			
Activity 2.1.1-22: Develop artisanal fisheries management plan									[Timeline bar]											
Milestone: Artisanal fisheries management plan endorsed by NFA													[Red dot]							
Activity 2.1.1-23: Implement an awareness campaign in South Fly																	[Timeline bar]			
Activity 2.1.1-24: Implement rights based management in South Fly													[Timeline bar]							
Output 2.1.3: Supporting national and regional actions on IUU fishing																	[Timeline bar]			
Activity 2.1.3-16: Strengthen community based MCS in South Fly													[Timeline bar]							

Annex J
Stakeholders' Roles and Responsibilities

Stakeholders' Roles and Responsibilities

Indonesia Stakeholders:

Stakeholder	Roles and Responsibilities
Government:	
Agency for Marine and Fisheries Research and Development, Ministry of Marine Affairs and Fisheries (MMAF)	MMAF's Agency for Research and Development for Fisheries (<i>Puslitbangkan</i>), at the Agency of Marine and Fisheries Research and Development will be the focal agency and coordinator of the National Project Board for the ATSEA-2 project. The Chairman of the Agency for Marine and Fisheries Research and Development (Balitbang) MMAF will be the Indonesian representation on the regional project steering committee.
DG of Surveillance of Marine and Fisheries Resources, MMAF	The DG covers activities related to the monitoring, control and surveillance (MSC) of fishing vessels and marine conservation, monitoring the impact of the catch related to wild capture fisheries on marine biodiversity as well as the use of the seaport facility. The DG also monitors the use of aquaculture infrastructure and monitors to ensure no negative impacts on the surrounding environment. This DG will be involve in the implementation activities of reducing illegal, unreported and unregulated (IUU) fishing.
DG of Marine Spatial Planning, MMAF	The DG is responsible for the management of Indonesia's marine areas, including the SE Aru MPA. For the ATSEA2 Project, this DG will be heavily involved in the project activities associated with the proposed upgraded MPA in Kolepon, Papua. The DG will also be involved in the Integrated Coastal Management (ICM) demonstration in Rote Ndao, in order to document best practices for combining marine, coastal and land-use planning for replication in other sites.
DG of Capture Fisheries, MMAF	The DG is responsible for ensuring the sustainability of fish in Indonesia waters by regulating the fisheries management area, fishing licences, and improving the capacity of local fishers. This DG is responsible for the implementation of Fisheries Management Plan (FMP) 718, covering the Arafura and Timor Seas. The ATSEA2 project will implement some priority actions of FMP 718 in strict collaboration with this DG.
DG of Strengthening Marine Products Competitiveness, MMAF	The DG works to enhance the value-added and competitiveness of Indonesian marine products by supporting certification procedures and working closely with various associations. This DG will have an active role to play in the ATSEA2 contributions to FIP work for certification of various fisheries in the ATS.
Secretariat General, MMAF	Under the responsibility of the the Secretary General, the Cooperation and Public Relation and Planning Bureaus will become the leading agencies to monitor ATSEA-2 project implementation for the project duration.
The Illegal Unreported and Unregulatd (IUU) Fishing Task Force (Task Force 115)	The Task Force is responsible for coordinating efforts to combat IUU fishing. ATSEA2 will collaborate closely with the Task Force regarding IUU activities and monitoring in the Arafura Sea.
Coordinating Ministry for Maritime Affairs and Resources	This ministry was established in October 2014, at the beginning of the current government era to coordinate the implementation of maritime policies and regulations that involve inter ministerial agencies. Its role in the project will be to bring ATSEA SAP to be implemented nation-wide as part of the national policy to support the president mandate of building maritime connectivity across the Indonesian archipelago
Bappenas	Bappenas is the agency responsible for national development planning and budgeting. Bappenas will be a prime stakeholder in ATSEA2, participating in the Inter-Ministerial Committee and in the mainstreaming of different policies and regulations in marine and fishery sector. Particular role of Bappenas will be to integrate ATSEA SAP and NAP into the National Program through the Medium-Term Development Plan (RPJM).

Stakeholder	Roles and Responsibilities
Ministry of Environment and Forestry	<p>This Ministry houses the <i>Directorate for Climate Change Adaptation</i>, which has the responsibility to conduct climate change impact and vulnerability assessments and from that draft strategies for natural and human-driven adaptation. ATSEA2 will coordinate with this directorate to build upon the existing vulnerability assessments in Rote Ndao and integrate the ecosystem-based adaptation strategies into ICM.</p> <p>This DG is responsible for the <i>Indonesia Climate Change Trust Fund (ICCTF)</i>, which could potentially provide support for replication of ecosystem-based adaptation or climate change related ICM activities, representing a potential facet of a sustainable financing strategy for replication of the demonstration activities.</p> <p>The Ministry also houses the <i>DG for Control of Environmental Impact and Destruction</i>, which is the prime agency related to pollution control. This DG provides guidance in marine and coastal strategies to reduce environmental impact. Activities conducted include an environmental impact assessment in Bali and Semarang every year. They have interest to increase number of recovered coastal ecosystem from environmental destruction. They also conduct activities in establishing pilot project of discharged and sewage system in fishing communities. For the ATSEA2 project, this DG will involve in the development of oil spill preventive and mitigation actions.</p> <p>Both DGs will be represented by the Ministry on the Inter-Ministerial Committee.</p>
Ministry of Foreign Affairs,	<p>Under the DG of Legal Affairs and International Treaties (Ditjen HPI) in the Ministry of Foreign Affairs, the consultation involving ATS Regional Coordination Mechanism (ATS RCM) will be undertaken. Another DG that is relevant to ATSEA2 project is DG Asia-Pacific and African Affairs that deals with the countries bordering ATS, namely Australia, PNG and Timor Leste. Their role will be to coordinate with Indonesian embassies and consulates in these countries during ATSEA2 implementation.</p>
Ministry of Internal / Home Affairs	<p>The DG Regional Autonomy provides assistance to the office of the Bupatis (Head of Districts) and Governors for adoption and development of new regulation as well as policy harmonization. Representative of this DG will have a seat in the Inter-Ministerial Committee</p>
Provincial Marine and Fisheries Office (DKP), East Nusa Tenggara Province	<p>The Provincial DKP office is now responsible for marine spatial planning as a result of Law 23/2014, which moved the authority from the district to the provincial level. DKP is an important stakeholder for undertaking ICM activities to harmonize various types and levels of planning as well as to monitor implementation in Rote Ndao District.</p>
Bappeda, East Nusa Tenggara Province (NTT)	<p>The provincial Bappeda office is responsible for the coordination and integration of programs in NTT. The agency is the coordinator of the SPADU Secretariat (Sekretariat Terpadu) for NTT's integrated development plan. ICM/EbA activities conducted in Rote will be undertaken in coordination with this secretariat.</p>
Provincial Marine and Fisheries Office (DKP), Maluku Province	<p>The Provincial DKP office is responsible for fisheries management as well as marine spatial planning. The DKP Maluku, together with DG Capture Fisheries MMAF, will be responsible in the implementation of Red Snapper EAFM in FMA 718. The implementation of FIPs and EAFM for Red Snapper Shrimp Fisheries and in Aru Islands Districts will also be coordinated with this agency.</p>
Bappeda, Maluku Province	<p>The provincial Bappeda office is responsible for the coordination and integration of programs of all sectors in Maluku, including marine and fisheries. Annual funding allocation to each sector will be coordinated and approved by this institution. The role of Bappeda will be in the mainstreaming of Indonesia NAP to the provincial programs.</p>
Provincial Marine and Fisheries Office (DKP), Papua Province	<p>For ATSEA2, the Papua Provincial DKP office is responsible for all fisheries management as well as marine spatial planning activities, especially in the implementation of FIP Barramundi Fishery and the Development of Kolepon MPA.</p>

Stakeholder	Roles and Responsibilities
	They will coordinate with the Merauke District DKP office, but the decision will be made at the Provincial level according to Law No. 23/2014.
Bappeda, Papua Province	The provincial Bappeda office is responsible for the coordination and integration of programs of all sectors in Papua, including marine and fisheries. Annual funding allocation to each sector will be coordinated and approved by this institution. The role of Bappeda will be in the mainstreaming of Indonesia NAP to the provincial programs
Kabupaten Marine and Fisheries Office (DKP), Kabupaten Rote Ndao	The Kabupaten Rote Ndao DKP office is responsible for implementing fisheries activities in the District including captured fishing, aquaculture and product processing to improve the livelihoods of coastal communities. The role of this office will be to coordinate the ICM and EBA activities in this kabupaten.
Kabupaten Marine and Fisheries Office (DKP), Kabupaten Aru	The Kabupaten Aru office is responsible for implementing fisheries activities in the District including captured fishing, aquaculture and product processing to improve the livelihoods of coastal communities. The role of this office in this project will be to coordinate the implementation of EAFM and FIP for Red Snapper and Shrimp Fisheries, improved effectiveness of SE Aru MPA.
District Marine and Fisheries Office (DKP), Kabupaten Merauke	The Kabupaten Merauke DKP office is responsible for implementing fisheries activities in the District including captured fishing, aquaculture and product processing to improve the livelihoods of coastal communities. The role of this office in this project will be to coordinate the implementation of EAFM for Barramundi Fishery, and the establishment of Kolepon MPA.
Universities:	
Bogor Agricultural University (IPB)	<p>The University undertakes research in various aspects of fisheries management and marine ecology. The Faculty of Fisheries and Marine Science in this University is one of the leading faculty in Indonesia and regional SouthEast Asia. Experts on EAFM and Marine biodiversity from this faculty will be engaged to provide knowledge in project implementation.</p> <p>The Research Centre for Coastal and Marine (PKSPL) IPB is the leading institution that can provide training on ICM and EAFM. They have experience in providing service to different Provinces and Kabupatens in conducting ICM work as well as conducting EAFM to different fisheries in Indonesia. PKSPL-IPB together with the local universities will play a key role in assisting the project to implement ICM in Rote Ndao and EAFM work for Red Snapper and Shrimp Fisheries .</p>
Nusa Cendana University (UNDANA)	UNDANA undertakes research in marine ecology, sea cucumber, topshells, abalone culture. The Faculty of Agriculture has a Fisheries Study Program that houses scientists that have expertise in local knowledge of the community and biodiversity. They will be engaged in socio-economic study of the community in Rote Ndao in support to the ICM implementation.
University Christian Artha Wacana, Kupang	The University is supporting community development in NTT, involved in fish processing activities with IFAD in Kupang and seaweed farming in Rote. The Seaweed farming activities in Rote will be undertaken in collaboration with the University, building on their experience.
Patimura University (UNPATI)	UNPATI undertakes research in marine ecology and social economy of community in Maluku. The Faculty of Fisheries and Marine Science in this university has scientists that have expertise in local knowledge of the community and biodiversity of the Arafura Sea. They will be consulted regarding the socio-economic study of the community in Aru Island archipelago to support the implementation of EAFM of Red Snapper and Shrimp Fisheries, and the update assessment of SE Aru MPA. The EAFM Learning Centre established in this university will be the key partner

Stakeholder	Roles and Responsibilities
	with PKSPL IPB to conduct the EAFM work in Aru Island archipelago.
Musamus University, Merauke	Currently conducting research on mangroves and social economy in Merauke. The University should be invited to participate in the ATSEA2 sub-national committee working on local management of the marine protected area. The biophysical and socio economic knowledge of Merauke that this university has accumulated will be key to their engagement in the assessment of Kolepon MPA and EAFM activity for Barramundi Fishery.
Papua University, Manokari	Currently conducting research on mangroves and social economy in Papua. The University should be invited to participate in the ATSEA2 sub-national committee working on local management of the marine protected area. The biophysical and socio economic knowledge of Merauke that this university has accumulated will be key to their engagement in the assessment of Kolepon MPA and EAFM activity for Barramundi Fishery. The EAFM Learning Centre established in this university will be the key partner with PKSPL IPB to conduct the EAFM work in Merauke
Research Centers:	
Research Center for Oceanography – Indonesian Institute of Science (P2O-LIPI)	Under the responsibility of LIPI’s Earth Science Deputy, the Centre for Deep Sea Research in Ambon will provide support for several key activities in ATSEA2 including the provision of Research Vessel “Baruna Jaya VII” for biophysical assessment off Kolepon Island in Papua and Fisheries Stock assessment of Red Snapper and Shrimp in FMA 718. LIPI will contribute US\$ 300,000 as in-kind cofinance to ATSEA2 by providing ship-time of the RV Baruna Jaya VII. A representative from LIPI will take part as ATSEA2 Indonesian Project Board member.
National Coordinator for Survey and Mapping Agency-BIG	Under the “One Map Policy”, BIG is the leading agency in Indonesia responsible for providing maps that cover coastal ecosystem. In this project, coastal mapping of mangrove, coral reef and seagrass will be significant to support the activities including ICM, MPA development and EAFM. Thus, the project will collaborate with BIG to these ends.
Indonesian Hydro-Oceanographic Office (DISHIDROS)	This agency is under the Indonesian Navy. It provides services for both military and civil purposes. The plan for ATSEA2 project to conduct survey in the Arafura Sea by involving international scientist’s participation will require security clearance that needs to be coordinated with DISHIDROS before the research permit can be granted.
Non-Governmental Organizations:	
World Wide Fund for Nature (WWF) Indonesia	WWF is particularly active in Merauke district. WWF is an important stakeholder, possibly as an implementing partner for the planned community level activities in Merauke, and should be invited to participate in the regional stakeholder partnership forum.
The Nature Conservancy (TNC) Indonesia,	TNC is active in NTT Province. The Conservancy participated in an MoU on Integrated Coastal Management Planning under the first phase of ATSEA and has since helped Rote Ndao district develop a marine spatial plan, which has been submitted to the Provincial Level for incorporation into the harmonized planning. TNC is an important stakeholder, possibly as an implementing partner for the planned community level activities in Rote Ndao, and should be invited to participate in the regional stakeholder partnership forum.
Conservation International	CI is active in Papua’s Bird-Head Seascape that include the northern part of Arafura Sea. The knowledge that CI has accumulated in this region will be useful in conducting survey for establishing new MPA in Kolepon
Baleo	Baleo is an NGO based in Ambon that is active in community development. They were one of ATSEA phase 1 partners in Saumlaki. In this project, Baleo will be involved in EAFM activities in District Aru Archipelago

Stakeholder	Roles and Responsibilities
Sitakena	Sitakena is an NGO based in Dobo. They implemented the ATSEA1 demonstration project in Aru and is a potential partner for implementing activities in Aru.
Forum <i>Perempuan Masyarakat Adat Aru</i>	Forum Perempuan Masyarakat Adat Aru is active in raising awareness about women's rights regarding the use of resources and current practices. In this project, the Forum will be involved in EAFM activities in District Aru Archipelago
Coral Triangle Center (CTC)	An NGO based in Bali, CTC provides training on MPA to government, practitioners and women leaders. They also organize a women leaders' forum and have arranged a regional exchange visit of women leaders from CT 6 countries to the US. Further, they conducted an ecology survey in Atauro Island, Dili and have an MoU with MAF TL. They are a potential partner for capacity building and establishing MPA in Timor Leste. They have developed a sustainable financing structure for the MPA in Nusa Penida, which provides an example to learn for strengthening the ATSEA2 MPAs.
International or multilateral organizations:	
United Nations Development Programme (UNDP)	The UNDP country offices and UNDP-GEF will provide overall project assurance and oversight of the implementation of the ATSEA-2 project. UNDP Indonesia has the primary project implementation responsibilities.
National Oceanic and Atmospheric Administration (NOAA)	NOAA is the US agency is undertaking wide-ranging support to Indonesia through the International Coral Reef Program in the Coral Triangle Initiative (MPA management, CC adaptation, etc.), In this project NOAA will be engaged to support the implementation of EAFM in FMP 718, as part of NOAA's support to CTI-CFF.
Food and Agriculture Organization (FAO)	FAO is the Implementing Agency for the GEF project Indonesian Sea Large Marine Ecosystem (ISLME). Part of the ISLME project is to develop a TDA and SAP of territorial waters of Indonesia and the North Coast of TL. ATSEA2 will collaborate with ISLME to synergize in EAFM implementation and Policy and Regulation Harmonization.
United States Agency for International Development (USAID)	USAID is active in Indonesia with a particular focus on climate change adaptation and marine biodiversity. A new climate change and marine biodiversity project working on similar activities is just getting started and is likely to take place in northern Maluku Province, just above the ATS region. There will be many opportunities for TSEA2 to collaborate with USAID's newly launched, US\$30 million SEA program. USAID has also given US 5 million to the Indonesia Climate Change Trust Fund (ICCTF) to support NGOs working in community level adaptation and mitigation. USAID is an important stakeholder that should be consulted on a number of ATSEA-2 activities as well as invited to participate on the regional stakeholder partnership forum. For more info on USAID CCA project information can be found at: https://www.usaid.gov/indonesia/environment .
Private sector:	
<i>Himpunan Pengusaha Perikanan Indonesia</i> (HPPI) – Indonesian Fisheries Business Association	HPPI is the leading association for fishing and processing companies that conducted their business in the Arafura Sea. This organization has members including Long liners, purseiners and gillnetters. Their role in the project would be as potential partner to have observers on board their vessels to conduct stock assessment for EAFM and FIPs
PT Intan	Private sector seafood company which is implementing the red snapper fisheries improvement project (FIP) in the Arafura Sea.

Timor-Leste Stakeholders:

Stakeholder	Roles and Responsibilities
Government:	
Ministry of Agriculture and Fisheries (MAF) <i>{Ministério de Agricultura e Pescas}</i> National Directorates of: <ul style="list-style-type: none"> - Forestry (NDF) - Protected Areas (NDPA) - Agriculture and Horticulture (NDAH) - Fisheries and Aquaculture (NDFA) 	MAF is responsible for agriculture, forestry, fisheries and livestock programs in Timor-Leste. MAF plays the primary coordinating role for implementation of the SAP and NAP. MAF's National Directorate of Fisheries and Aquaculture (NDFA) will be the main focal agency for the project, with representation on the regional project steering committee and the national project board.
Ministry of Commerce, Industry and the Environment (MCIE) <i>{Ministério de Comércio, Industria e Ambiente}</i>	MCIE is responsible for industry and economic development, as well as the environment. The Ministry is therefore also responsible for imposing and enforcing environmental standards, regulations and legal requirements, as well as overseeing Timor-Leste's ratification of Rio Conventions (UNFCCC, UNCCD, and UNCBD) and international obligations. MCIE is the GEF operational focal point for Timor-Leste; collaboration will help ensure complementarity with other ongoing projects/programs. MCIE will have representation on the national inter-ministerial committee.
Ministry of Tourism, Arts and Culture (MTAC) <i>{Ministério de Turismo, Artes e Cultura}</i>	MTAC is working with communities to build capacity to support growing ecotourism sector and awareness raising about tourism demand, thus improving access by communities to the market. There is potential to build on these efforts to support alternative resilient livelihoods in villages in/near the Nino Konis Santana National Park. MTAC will have representation on the national inter-ministerial committee.
Ministry of Defence (MD) <i>{Ministério de Defesa}</i>	MD is responsible for surveillance and enforcement; legal affairs (establishment of fishing zones, development of fisheries); and legislation (assisting with licensing mechanisms). This Ministry will have representation on the national inter-ministerial committee and should be consulted regarding a role in the planned IUU community based monitoring, control, and surveillance activity.
Ministry of Finance <i>(Ministério das Finanças)</i>	The Ministry of Finance is responsible for allocating government funding and coordinating contacts with major potential donors. The Ministry will have representation on the national inter-ministerial committee.
National Disaster Management Directorate (NDMD), Ministry of Social Solidarity (MSS) <i>{Ministério de Solidariedade Social}</i>	NDMD is the main agency responsible for coordinating disaster risk management in Timor-Leste, namely in the fields of civic education, prevention, mitigation, emergency response and recovery after a disaster. ATSEA-2 will assess the impacts of climate change on coastal communities and the ATS region as well as develop an oil spill and crocodile response plan. Expertise and data are available from NDMD to inform related activities. NDMD is also the key government counterpart for the UNDP/GEF-LDCF <i>Strengthening Community Resilience to Climate-induced Disasters in the Dili-to-Ainaro Road Development Corridor</i> project. Collaboration between these two GEF projects as well as the GEF Resilient Shorelines project is important to ensure complementarity and responsiveness to the

Stakeholder	Roles and Responsibilities
	priorities highlighted in the NAPA.
Ministry of Public Works, Transport and Communications <i>{Ministério das Obras Publicas, Transportes e Comunicações (MOPTC)}</i>	MOPTC proposes and implements policy guidelines and enforces legal frameworks in several areas relevant to ATSEA-2 including water supply, management of water resources, power, transport, and communications. MOPTC is leading the National Spatial Planning laws and plans. The zoning decisions, and enforcement of the laws and plans, will be important to inform project implementation, particularly related to ICM implementation. MOPTC will serve on the Timor-Leste-Inter-Ministerial Committee.
National Police of Timor-Leste, Ministry of Interior <i>{Polícia Nacional de Timor-Leste (PNTL), Ministério do Interior}</i>	PNTL is part of the Ministry of the Interior and has responsibilities for coastal surveillance. PNTL will have representation on the national inter-ministerial committee and should be consulted regarding a role in the planned IUU community based monitoring, control, and surveillance activity.
Ministry of Planning and Strategic Investment <i>{Ministério do Planeamento e Investimento Estratégico}</i>	The Ministry of Planning and Investment Strategy is the central Government body responsible for the design, execution, coordination and evaluation of policy, defined and adopted by the Council of Ministers, for the areas of promotion of economic and social development of the country. Through strategic and integrated planning and the rationalization of available financial resources, the Minister of Planning and Strategic Investment takes on specific responsibilities over the implementation of the Strategic Development Plan, particularly in relation to Infrastructure and Urban Planning, Petroleum and Mineral Resources, and Territorial Planning
Ministry of Foreign Affairs and Cooperation <i>{Ministério do Negócio Estrangeiro e Cooperação (MNEC)}</i>	Given its mandate for coordinating Timor-Leste's involvement in cooperation with other countries, MNEC will be consulted on all activities regarding regional cooperation, particularly those related to IUU and EAFM.
Ministry of Education <i>{Ministério do Educaçau}</i>	Given the country's demographics, it will be important to work with the Ministry of Education regarding capacity building mechanisms, the integration of key lessons related to coastal and marine ecosystems into curricula and the development of an effective public awareness campaigns around marine and coastal health in ATS. This Ministry will be consulted regarding these activities and will have representation on the national inter-ministerial committee.
Ministry of Petroleum and Mineral Resources <i>{Ministério do Petroleo e Recursos Naturais}</i>	The Ministry of Petroleum and Mineral Resources is the central Government body responsible for the design and execution of the energy policy and management of mineral resources, including oil and other strategic minerals, as approved by the Council of Ministers, as well as for licensing and regulation of extractive activities, industrial activities of improvement of oil and minerals, including the petrochemical and refining industry.
Ministry of Justice <i>{Ministério da Justisa}</i>	Ministry of Justice tenders advice to all the federal government on legal and constitutional concerns. This Ministry will be consulted regarding these activities and will have representation on the national inter-ministerial committee particularly on the legal aspects.
Ministry of Health <i>{Ministério da Saude}</i>	Ministry of Health is responsible for matters concerning National Planning and Coordination in the field of Health. If the project may have their representatives at the national inter-ministerial committee particularly on the issues associated with health.

Stakeholder	Roles and Responsibilities
Município Manatuto	The local government unit of Município Manatuto is accountable to the operation of government programs in the município. Representatives from the município will be actively involved in the planning and implementation of activities planned in the communities there.
Posto Administrativo Barique	The local government unit of Posto Administrativo Barique is accountable to the operation of government programs in Barique. Representatives from the posto administrativo will be actively involved in the planning and implementation of activities planned in the communities there.
Academic and Research Institutions:	
National University of Timor-Leste {Universitas Nasional Timor-Leste (UNTL)}	UNTL is one of the main tertiary academic institutions in the country, with a Centre for Climate Change and Biodiversity established in 2014. Experts from the university might be possible candidates for local consultants on the project. The UNTL would also be an important member of the Stakeholder Partnership Forum.
Dili Institute of Technology (DIT)	DIT is a private Higher Institute providing technical education in the range of areas such as; Engineering, computers, ICT, Business and Management of Petroleum. Potentially DIT could be considered in the important member of the Stakeholder Partnership Forum.
University of Dili- UNDIL {Universitas Dili}	UNDIL is a private University based in Dili with varies courses include; Economic management, Engineering and Architecture. Possibly the project team could considered UNDIL as essential candidate for member of the Stakeholder Partnership Forum.
Institute of Business (IOB)	IOB is a private operating business in Dili. Primarily the Institute running in the business sectors with course varies such as; Business, management, accounting and ICT. Potentially IOB could be considered in the important member of the Stakeholder Partnership Forum.
Charles Darwin University (CDU)	CDU is an active research institute contributing to the Timor's literature particularly and East Timor development in general. CDU would be an important stakeholder Forum.
Peace University {Universitas da Paz (UNPAZ)}	UNPAZ is private running business based in Dili town. The university consists from varies faculties include; Law, Engineering, Agriculture and Architecture courses. Potentially UNPAZ could be considered in the important member of the Stakeholder Partnership Forum.
Universitas Continental (UNITAL)	UNITAL is private running business based in Dili town. The university consists from varies faculties include; Engineering, Agriculture, fisheries and Architecture courses. Potentially UNITAL could be considered in the important member of the Stakeholder Partnership Forum.
Non-Governmental Organizations:	
Haburas	The Haburas Foundation is the oldest and most active national environmental group in the country, using a wide network of local community groups and relies on traditional Timorese culture to promote better environmental management practices that also respond to the developmental needs of local communities. Haburas is at the forefront in promoting principles of equality of opportunity, equal access to resources, equal responsibility for the protection of peoples and the environment, and guaranteeing equality for the benefit of everyone. Harburas would be an important stakeholder, possibly as an implementing partner for the planned community level activities.

Stakeholder	Roles and Responsibilities
HAK Association { <i>Yayasan HAK</i> }	HAK, originally founded in 1996 to provide legal assistance to political prisoners, has the mission to promote, protect and spread the principles of human rights throughout society and the state institutions of Timor-Leste. HAK has 30 years of experience promoting the economic, social and cultural rights of the Timorese people, including through the establishment of the Fokupers Organization (The Timor-Leste Women’s Communication Forum) to promote women’s rights. HAK would be an important stakeholder, and should be invited to participate in the regional stakeholder partnership forum to represent the rights of the people.
Timor-Leste NGO Forum { <i>Forum ONG Timor-Leste (FONGTIL)</i> }	FONGTIL is a national umbrella membership-based non-government organization, for Local, National and International NGOs in Timor-Leste that share the belief to promote and advocate in all sectors for the wellbeing and interests of all Timorese citizens. They should also be invited to join the Stakeholders Partnership Forum.
Chamber of Commerce and Industry (CCI) { <i>Camára Comercio e Industria - Kamar Dagang Dan Industri</i> }	The CCI TL is the foremost Chamber of Commerce in Timor Leste. The organization objective is to represent its members in policy advocacy, and to deliver a range of business services to enhance the skills, knowledge and performance of the businesses its represent to achieve private sector growth. They should also be invited to join the Stakeholders Partnership Forum.
Mercy Corps	Mercy Corps is active in Timor-Leste working to address the root causes of poverty by increasing food production, building local economies and increasing access to energy and financial services for rural communities most vulnerable to climate change and other shocks. Mercy Corps could possibly be an implementing partner for the planned community level activities.
Conservation International (CI)	CI is very active in Timor Leste, and has an extensive self-curated database of GIS ecosystem mapping for the country. They have done a considerable amount of work with communities in the Nino Konis Santana area.
Worldfish	WorldFish is an INGO whose mission is to reduce poverty and hunger by improving fisheries and aquaculture. WorldFish’s ecosystem approach to aquaculture is consistent with the overall approach of ATSEA-2 and could be a potential partner in implementing marine related capacity building and alternative livelihood activities. The project could benefit from Worldfish’s expertise and best practice experience.
International or multilateral organizations:	
United Nations Development Programme (UNDP)	The UNDP country office will provide strategic guidance to MAF, and also have an important role on the national project board. UNDP’s expertise on cross-cutting issues, including disaster management and gender, would be useful in supporting the implementation of the project, with respect to exchange of best practices and lessons learned. As UNDP Timor-Leste is concurrently implementing two other GEF projects, they can help ensure complementarity between the projects.
JICA	JICA is providing critical support to GoTL in several areas of relevance to this project, namely coastal forest management, catchment and watershed management and spatial planning. They should be invited to participate on the regional stakeholder partnership forum.
United States Agency for International Development	USAID is active in Timor-Leste, particularly in aquaculture, environmental protection and climate change adaptation. They should be

Stakeholder	Roles and Responsibilities
(USAID)	invited to participate on the regional stakeholder partnership forum.
US National Oceanic and Atmospheric Association (NOAA)	NOAA is running a coral reef conservation program to help to enhance ecosystem-based management of coral reef ecosystems in the Coral Triangle, including Timor-Leste's Nino Konis Santana National park. NOAA and USAID are working together to build coastal and fisheries management capacity towards food security, biodiversity, and climate adaptation in Timor-Leste. They have considerable data and best practice experience that would be of use to ATSEA-2. They should be invited to participate on the regional stakeholder partnership forum.
Korea International Cooperation Agency (KOICA)	KOICA is supporting MAF-NDFA in the aquaculture sector. Activities include the establishment of a training facility in Liquiça. They should be invited to participate on the regional stakeholder partnership forum.
FAO	FAO in Timor Leste focusing in five priority areas; 1) support to improvement of institution and coordination mechanisms for policies and laws and regulations 2) support first agriculture census, 3) support farming livelihoods, food availability, 4) support smallholders fishing and aquaculture households and 5) support to renewal realignment and development of Timor-Leste's crop system. They should be invited to participate on the regional stakeholder partnership forum or national Stakeholders consultations.
GIZ	Germany Development Agency has been installed in Dili since 1999. Current priorities are peacebuilding and development. They should be invited to participate on the regional stakeholder partnership forum or national Stakeholders consultations.
DFAT	DFAT programs in Timor Leste based on three strategic objectives include; 1) improving livelihoods, 2) enhancing human development and 3)strengthening governance and institutions. They should be invited to participate on the regional stakeholder partnership forum.
Private sector:	
ENI	An oil and gas company in Timor-Leste, possibly interested in collaborating on the oil spill preparedness activities. They should also be invited to join the regional Stakeholder Partnership Forum.
ConocoPhillips	An oil and gas company in Timor-Leste, possibly interested in collaborating on the oil spill preparedness activities and women's empowerment. They should also be invited to join the regional Stakeholder Partnership Forum.
Local Media:	
Timor Telecom	These four local media outlets will be contacted by the project as required to support information and knowledge dissemination through various types of media.
Televisão de (Telvisivi) Timor-Leste	
Suara Timor Loro Lorosae	
Audiovisual Production House { <i>Casa de Produção Audiovisual</i> }	

Papua New Guinea Stakeholders:

Stakeholder	Roles and Responsibilities
National and Subnational:	
National Fisheries Authority (NFA)	Under the Fisheries Management Act 1998, the NFA is given the authority to manage the fisheries within the fisheries waters of PNG. NFA will be the focal agency for the project, and it is likely the national coordinator will be a NFA staff member. The authority will have representation on the regional project steering committee and the national project board, and will endorse the artisanal fisheries management plan for the South Fly District.
National Fisheries Board	The National Fisheries Board provides general control and guidance over the exercise of the functions and powers of NFA. For the ATSEA-2 project, the National Fisheries Board will provide guidance to the NFA.
Ministry of Fisheries and Marine Resources	The NFA is an authority of the Ministry of Fisheries and Marine Resources. The Ministry will likely represent PNG in regional discussions, e.g., endorsement of the updated regional strategic action programme. The Ministry is responsible for drafting and enacting legislation, and in this capacity, will endorse the planned artisanal fisheries management plan for the South Fly District.
Western Province Administration, Provincial Fisheries Office	The Provincial Fisheries Office is under the administration of the Western Province Local Government, and their technical work is coordinated by the NFA. Currently, the Provincial Fisheries Office does not have a physical premise. The fisheries officers from this Office will be involved in EAFM training and supporting community level implementation activities.
Treaty Villages Council	The Treaty Villages Council, based in the Provincial capital Daru, was formed as part of the Torres Strait Treaty with Australia. There are 13 villages having representation on the Council. The Council will be an important stakeholder in supporting the design and delivery of the community based activities. The current chairperson is Mr. Kebei Salei.
Conservation and Environment Protection Authority (CEPA)	CEPA is an authority under the Ministry of Environment, Conservation, and Climate Change. CEPA would be an important member of the Stakeholder Partnership Forum, and they might have direct involvement on the project, for example, if environmental impacts from mining discharge are assessed during the TDA. Also, CEPA has recently prepared a management plan for dugongs and turtles for the South Fly District; something that could support the planned ATS regional action plan on protection of endangered migratory marine species. The person at CEPA responsible for the marine division is Vagi Rei.
Climate Change and Development Authority (OCCDA) (Ministry of Environment, Conservation, and Climate Change)	As of 1 January 2016, the OCCDA was upgraded to the level of authority, also under the Ministry of Environment, Conservation, and Climate Change. The OCCDA would also be an important member of the Stakeholder Partnership Forum, and would have direct involvement in the planned regional climate change assessments.
Coastal Fisheries Development Agency (CFDA)	The CFDA was created to fill the gap between the national government and provincial governments for fisheries management. According to NFA officials, the CFDA is not actively functioning, with no subnational offices, and do not envisage an active role on the project. At a minimum, the ATSEA-2 project implementation team should make contact with the CFDA as part of the Stakeholder Partnership Forum.

Stakeholder	Roles and Responsibilities
National Maritime Safety Authority	The National Maritime Safety Authority is active with respect to awareness on marine safety, and they have a program at the South Fly District involving registration of small boats and assigning them unique number markings. This Authority would have a role in the planned IUU community based monitoring, control, and surveillance activity.
Papua New Guinea Customs Service	The Customs Service might be involved in terms of cross-border exchanges with Indonesia, e.g., the fishing net recycling system to be set up in Merauke. Overall, their role on the project will likely be minimal.
Department of National Planning and Monitoring	The Department of National Planning and Monitoring is the largest central government agency under the authority of the Ministry of Planning Monitoring. The Department will have an important role with respect to mainstreaming the National Action Program into development frameworks and budgetary allocations.
Ministry of Foreign Affairs and Trade	The Ministry of Foreign Affairs and Trade will be involved in the development of the regional strategic action programme, and establishment of a regional governance mechanism. The Ministry might be requested to sit on the national project board as well. And, the Ministry will be involved in securing permissions and clearance associated with the planned research cruise near the Torres Strait.
Academic and Research Institutions:	
University of Papua New Guinea (UPNG)	The UPNG is the main tertiary academic institution in the country, with degree courses in marine biology. Experts from the university actively provide technical advisory services to the NFA, and these experts might possible candidates for local consultants on the project. The UPNG would also be an important member of the Stakeholder Partnership Forum.
National Fisheries College	The National Fisheries College is an entity of the NFA, and provides training courses, including on post-harvest targets. The College would be involved in the training related activities on the ATSEA-2 project.
Non-Governmental Organizations:	
WWF (World Wildlife Fund)	The WWF is actively involved in the Western Province, as part of the Tonda Wildlife and Bensbach protected areas. Although these are terrestrial protected areas, local WWF staff could have valuable community outreach experience that could be useful for the ATSEA-2 project. They should also be invited to join the Stakeholders Partnership Forum.
Eco-Forestry Forum	This is reportedly an umbrella organization for both international and national NGOs in PNG. They should also be invited to join the Stakeholders Partnership Forum.
Bata Coastal Fisheries Development (Bata CFD)	Bata CFD is the most active local NGO in Western Province, with specific experience in the fisheries sector; the name “bata” means barramundi in the local language. Bata CFD would be an important stakeholder, possibly as an implementing partner for the planned community level activities.
International or multilateral organizations:	
United Nations Development Programme (UNDP)	The UNDP country office will provide strategic guidance to the NFA, and also have an important role on the national project board. UNDP’s expertise on cross-cutting issues, including disaster management and gender, would be useful in supporting the implementation of the project, with respect to exchange of best practices and lessons learned. In terms of

Stakeholder	Roles and Responsibilities
	knowledge management, the UNDP country office is well positioned to provide feedback on content, publication, and dissemination.
The Food and Agriculture Organization of the United Nations (FAO)	The FAO has in-country operations in PNG, and they should be invited to participate on the regional Stakeholder Partnership Forum.
Asian Development Bank (ADB)	ADB has supported a number of projects in PNG, including in the fisheries sector. They should be invited to participate on the regional Stakeholder Partnership Forum.
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	CSIRO is an important stakeholder in the region, completing extensive studies in the South Fly District on traditional fisheries and other topics. There could be opportunities for CSIRO cofinancing the planned research cruise and also some of the planned community level activities. The person at CSIRO who has led the traditional fisheries studies is James Baker, and David Brewer is the contact person regarding the research cruise. CSIRO should also be invited to join the regional Stakeholder Partnership Forum.
Australian Government Department of Foreign Affairs and Trade (DFAT)	The NFA has had active discussions with DFAT about supporting activities in the South Fly District; for example, for value chain analyses. DFAT is an important stakeholder for the project, and they should be invited to participate on the regional Stakeholder Partnership Forum. They might also be involved in the planned research cruise, arranging necessary permissions and clearances.
Torres Strait Protected Zone Joint Authority (PZJA)	The PZJA is responsible for management of commercial and traditional fishing in the Australian area of the Torres Strait Protected Zone (TSPZ) and designated adjacent Torres Strait waters. They could have a role in exchange of best practices with respect to traditional fisheries among Australian communities.
Torres Strait Scientific Advisory Committee (TSSAC)	The TSSAC is a committee functioning under the PZJA, and provides a forum for expert consideration of scientific issues referred to the Torres Strait Scientific Advisory Committee (TSSAC) by the Torres Strait Fisheries Management Advisory Committee (TSFMAC). They should be invited to participate within the expert component of the ATSEA Stakeholder Partnership Forum.
Australian Fisheries Management Authority (AFMA)	AFMA provides fisheries management services to Joint Authorities of the Commonwealth and state governments, including the Torres Strait Protected Zone Joint Authority (PZJA). AFMA could have a role in developing the artisanal fisheries management plan and delivering community based interventions.
The Australian Institute of Marine Science (AIMS)	AIMS has been an active member of ATSEF, and supported one of the two research cruises of the first phase of ATSEA. The NFA officials were unaware of support by AIMS in the Western Province, but inquiries should be made.
James Cook University	With their location in Queensland, the James Cook University is geographically close to PNG and there have been a number of collaborative activities with NFA and other stakeholders. They should be invited to join the regional Stakeholders Partnership Forum.
Japan International Cooperation Agency (JICA)	According to NFA officials, JICA has supported training programs in the past. They should be invited to join the regional Stakeholders Partnership Forum.

Stakeholder	Roles and Responsibilities
United States Agency for International Development (USAID)	USAID is active in PNG, including in the fisheries sector. They should be invited to join the regional Stakeholders Partnership Forum.
Private sector:	
Maru Marine	Each of these three is a private fisheries industry based in Daru, involved in post-harvest activities. There might be possibilities for involvement in terms of alternative livelihood training for local villagers, as part of the planned IUU and EAFM activities. For example, there are reportedly local fisheries cooperatives in some of the Treaty villages, but they are not activity working as cooperatives due to lack of business and financial management skills.
Aquila Enterprises	
Philo Marine	
OK Tedi Mine Limited	The OK Tedi Mine is located in the upland reaches of Western Province. The company reportedly has a community development arm, called OTDF, which is involved in various community outreach programs. There are complex issues associated with the mine, including increased pressure on natural resources by the mine itself and workers who reside in the nearby villages. Mining waste discharge is also impacting the coastal ecosystems. There are a number of possible entry points with the OKDF, including supporting the planned community level activities, and possibly also the research cruise, e.g., analysis of benthic samples for heavy metals.
Fishing Industry Association (FIA)	The FIA was formed as the formal channel through which fishing-related businesses could voice their ideas, opinions and concerns relating to the development of the sector. The FIA should be involved as part of the planned IUU and EAFM implementation activities. They should also be invited to join the national arm of the Stakeholder Partnership Forum.

Australia Stakeholders:

Stakeholder	Role/Interest
Government:	
Department of the Environment	<p>The Department of the Environment will be the lead governmental focal point for the ATSEA-2 project. The department will have representation on the regional project steering committee and will send invitations for attendees to the regional Stakeholder Partnership Forum. This agency will be a source of technical knowledge for EAFM through the sustainable fisheries section.</p> <p>The Department's National Environmental Science Program (NESP) is undertaking research on the management of marine biodiversity (hammerhead sharks), including in Australia's northern seas. The Program is also funding a project to improve ecosystem understanding to support sustainable use, management and monitoring of marine assets in the north and northwest. NESP will be an excellent source of learning on best practices for MPA. Also under the Department of Environment, Parks Australia is responsible for managing the Commonwealth Marine Reserves. Parks Australia will be an excellent source of learning on best practices for MPA Management.</p>
Department of Agriculture and Water Resources (DAWR)	The DAWR takes the lead on fisheries management in Australia, including RPOA-IUU. DAWR will be involved in any regional coordination regarding IUU fishing and MCS, as well as any related government to government training.
Australian Fisheries Management Authority (AFMA)	AFMA is the technical agency that oversees ecosystems based fisheries management in Australia. AFMA is also involved in RPOA-IUU and is a source of technical knowledge for EAFM.
Australian Maritime Safety Authority (AMSA)	AMSA is responsible for planning and preparedness regarding marine pollution issues, including oil spills and port waste issues. They also undertake related training. There is a MoU between AMSA and Indonesian Ministry of Transportation on Oil Spill Preparedness and Response. AMSA will be a good source of knowledge for putting together an effective oil spill response plan for the Timor Sea.
Torres Strait Regional Authority	The Authority works with Torres Strait islanders and treaty villagers on fisheries, environmental management and climate change impact issues. They have the indigenous rangers program and other practical programs that could be a good partner for community/experience exchanges within ATSEA-2.
Australian Government Department of Foreign Affairs and Trade (DFAT)	DFAT is the lead policy agency on international issues and Australian Aid policy as well and will be an important member of the regional Stakeholder Partnership Forum.
Bureau of Meteorology, Home Office (HO) and Northern Territory (NT) Regional Office	The Bureau endeavors to understand climate change and support climate change adaptation in the ATS region through a myriad of operational weather modelling and weather forecasting activities. The Bureau will be an important member of the regional Stakeholder Partnership Forum and its scientific advisory group related to climate change. The Bureau will be an important source of support for the climate change related modelling under component 1.
Department of Industry, Innovation and Science	This Department works in regional science collaboration, including regarding data on marine observation systems, etc. They will be funding a related APEC workshop in 2017. The Department is a good source for Environmental Baseline Information through the upcoming workshop.
Department of Immigration	The Department is responsible for many border related trade and

Stakeholder	Role/Interest
and Border Protection	immigration issues, including the identification and investigation of IUU vessels. The Department collaborates in this IUU monitoring with Indonesia and will continue to do so, also with the other ATS countries through the ATSEA-2 project.
Great Barrier Reef Marine Park Authority (GBRMPA)	The Authority will be an incredible source of knowledge for the project on MPA management, reef health and management, and turtle and dugong conservation and management.
National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA)	The Authority has extensive knowledge and experience in pollution management and oil spill response. The project will seek their insights regarding regional coordination on ATS oil-spill response.
Universities:	
Charles Darwin University	The University houses the Research Institute for the Environment and Livelihoods (RIEL), and was involved in baseline data collection under ATSEA1 for Timor Leste. It will be invited to form part of the Stakeholder Partnership Forum.
University of Western Australia (UWA)	UWA undertakes marine research in the Indian Ocean and Timor Sea that focuses on: <ul style="list-style-type: none"> - developing multiscale biodiversity maps for the NW region of Australia; - linking atmosphere-ocean models to better predict climate change, - linking ocean-coast current and wave and biogeochemical models predicting responses of ecosystems to climate change and resource use; and - policy options for sustainable management of ecosystems. The University will be invited to form part of the Stakeholder Partnership Forum.
James Cook University	In addition to extensive expertise in turtle and dugong conservation, the University is implementing a climate resilient seaweed project, similar to the intervention planned in ATSEA-2 for climate resilient livelihood development in Rote Ndao. In addition to collaborating and sharing information in relation to the seaweed project, the University will be invited to participate in the Stakeholder Partnership Forum.
Research Centres:	
GeoSciences Australia	The agency has undertaken a significant amount of Marine Mapping and studies on Seabed Geology.
Australian Institute for Marine Science (AIMS)	AIMS is a leading regional research institution regarding marine and coastal ecosystems. The institute also has a fleet of research vessels – one of which supported the ATSEA-1 marine assessment. AIMS will be an important member of the regional Stakeholder Partnership Forum.
Commonwealth Scientific and Industrial Research Organisation (CSIRO)	CSIRO is active in research in the ATS region, particularly in PNG. They will be an important member of the regional Stakeholder Partnership Forum, and may also be involved in a research cruise for PNG.
Australian Centre for International Agricultural Research (ACIAR)	ACIAR is a statutory authority that operates as part of the Australian Aid Program. ACIAR funds research projects that are developed within a framework reflecting the priorities of Australia's aid program and national research strengths, together with the agricultural research and development priorities of partner countries (including Timor-Leste, PNG and Indonesia).
Australian National Centre for Ocean Resources and Security (ANCORS)	The Centre is dedicated to research, education and training on ocean law, maritime security and natural marine resource management, including climate change, fisheries and food security among other things.
National Climate Change and	The NCCARF represents a partnership between the Australian Government

Stakeholder	Role/Interest
Adaptation Research Facility (NCCARF) – based at Griffith University	Department of Environment and Griffith University, with a consortium of funding partners drawn from across the country: <ul style="list-style-type: none">) Queensland Government) James Cook University) Macquarie University) Murdoch University) Queensland University of Technology) The University of Newcastle) University of Southern Queensland) University of the Sunshine Coast <p>The facility generates biophysical, social and economic information and will be an important member of the Stakeholder Partnership Forum.</p>
Non-Governmental Organizations:	
GhostsNets Australia	Focused on addressing ghostnets issues and impacts in Northern Australia from nets coming mostly from the Arafura Sea. Works closely with the indigenous ranger program in Cape York where most of the ghost nets are found.
North Australia Indigenous Land and Sea Management Association (NAILSMA)	Indigenous led not-for-profit company operating across north Australia. Works to assist Indigenous people manage their country sustainably.
WWF-Australia	WWF has considerable experience in MPA management, marine debris reduction, and turtle and dugong conservation. They will be an important member of the Stakeholder Partnership Forum.
Private sector:	
Australian Petroleum Production & Exploration Association (APPEA)	APPEA is the primary national body representing Australia’s oil and gas exploration and production industry.
Minerals Council of Australia (Mining Lobby Group)	The Council represents Australia’s exploration, mining and minerals processing industry.
Northern Prawn Fishery Industry Pty Ltd	This fishery group has expertise in fisheries management and specifically MSC relating to prawn trawl. They fish in areas with shared shrimp stocks with the ATS.
Others:	
Northern Territory Seafood Council	The Council has a number of fisheries that target shared stocks with ATS (Snapper, Mackerel, Barramundi, sharks).
Northern Territory Department of Primary Industries and Fisheries	The Department is responsible for managing a number of fisheries that have shared stocks with ATS (Snapper, Mackerel, Barramundi, sharks).
Western Australia Fishing Industry Council	Number of fisheries that target shared stocks (Mackerel)
Western Australia Department of Fisheries	The Department is responsible for managing a number of fisheries targeting shared stocks with ATS (Mackerel)
The Protected Zone Joint Authority (PZJA)	The Authority is responsible for management of commercial and traditional fishing in the Australian area of the Torres Strait Protected Zone (TSPZ) and designated adjacent Torres Strait waters. They target shared stocks with the ATS, including Barramundi.