UNITED NATIONS ENVIRONMENT PROGRAMME
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Программа Организации Объединенных Наций по окружающей среде | برنامج الأمم المتحدة للبيئة
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UNEP

SECTION 1: PROJECT IDENTIFICATION

1.1	**Project Title:**	Advancing sustainable resource management to improve livelihoods and protect biodiversity in Palau
1.2	**Project Number:**	5208
1.3	**Project Type:**	Full-sized Project
1.4	**Trust Fund:**	GEFTF
1.5	**Strategic Objectives:**	
	GEF strategic long-term objective:	Biodiversity
	Strategic programme for GEF V:	BD-1, BD-2, LD-3, SFM/REDD-1, IW-1
1.6	**UNEP Priority:**	Ecosystem Management EAa, Output 1 (2014-2015 and 2016-2017)
1.7	**Geographical Scope:**	Republic of Palau
1.8	**Mode of Execution:**	External
1.9	**Project Executing Organization:**	Office of Environmental Response and Coordination (OERC)
1.10	**Duration of project:**	48 months *Commencing*: January 2016 *Completion*: December 2019

1.11 Cost of Project:

	US$	**%**
Cost to the GEF Trust Fund	3,747,706	19.2%
Co-financing	15,800,000	80.8%
Co-financing Details:		
Cash		
Protected Areas Network (PAN)	4,000,000	20.4%
In-Kind		
Belau National Museum	500,000	2.6%
Bureau of Arts and Culture	500,000	2.6%
Bureau of Land and Survey	500,000	2.6%
Bureau of Marine Resources	1,000,000	5.1%
Bureau of Agriculture	800,000	4.1%
Bureau of Tourism	300,000	1.5%

Protected Areas Network (PAN)	400,000	2.0%
Palau International Coral Reef Center	2,500,000	12.8%
Palau Conservation Society	700,000	3.6%
PALARIS	500,000	2.6%
Palau Public lands Authority	200,000	1.0%
The Nature Conservancy – Palau Office	200,000	1.0%
EQPB	200,000	1.0%
Palau Visitors Authority	200,000	1.0%
Koror State	1,000,000	5.1%
Angaur State	250,000	1.3%
Babeldaob States		*9.4%*
Melekeok State	250,000	1.3%
Ngiwal State	250,000	1.3%
Airai state	250,000	1.3%
Ngaraard State	250,000	1.3%
Ngatpang State	250,000	1.3%
Ngardmau State	200,000	1.0%
Aimeliik State	200,000	1.0%
Ngarchelong State	200,000	1.0%
UNEP	200,000	1.0%
Sub-total, In-Kind	*11,800,000*	*60.3%*
Total	**19,547,706**	**100.0%**

1.12 Project Summary:

1. This project will support Palau's two linked national efforts to protect biodiversity and sustainably use natural resources: the Protected Areas Network (PAN) and the Sustainable Land Management (SLM) Initiative. In addition, this project will support coordination between the two efforts and other cross-sector issues that transcend boundaries and sectors. The PAN focuses on locally managed marine and terrestrial protected areas. The SLM addresses land uses and both direct and indirect impacts outside of protected areas. When coordinated, the PAN and SLM will provide Palau with a powerful framework to manage resources sustainably from the local to the national levels. This project provides critical enabling support for national coordination of and builds capacity to manage cross-sector issues within and beyond these individual initiatives.
2. Palau has pristine habitats, a wide variety of marine and terrestrial biodiversity, healthy populations of native species, many endangered species, and a high level of endemism. The environment forms the basis of Palau's culture and economy, with much of the population reliant on natural resources for subsistence or through tourism, the largest industry earning overseas revenue. Since independence in 1994, Palau's population and economy has grown rapidly and development, particularly for tourism and as a result of improving incomes (e.g. new home construction), is a

major contributor to environmental declines. Agriculture is growing slowly, but is a national priority. Agriculture has disproportionately large negative impacts on the environment, particularly in degrading water quality.

3. There is a robust environmental and conservation sector and the work of diverse stakeholder groups over the past decades has limited many environmental damages, leaving most outlying areas outside of the population centers of Koror and Airai in near-pristine shape. However new roads and modernization has increased pressures on natural resources throughout the country. Currently development and modernization are outpacing the growth in capacity of Palau's environmental and conservation sectors.
4. Palau has invested heavily in protected areas and much of the country's forest and near-shore marine areas are under some form of customary or legal protection. However actually managing the sites to achieve effective conservation and minimize threats remains a challenge. More recently Palau has begun to look beyond the boundaries of protected areas to indirect impacts from development and thus the SLM Initiative was developed.
5. Despite investments in the environment sector, one of the most important root causes of problems is that there is little formal coordination between environmental and conservation actors (whether government or civil society) at all levels from state to national and across sectors. This has led to conflicts not only between development and conservation, but also between conservation organizations, both within government and across civil society organizations. Lack of information and transparency compounds this problem.
6. Major threats come from climate change, habitat loss and degradation (both direct and indirect), Invasive Alien Species, and over- or illegal harvesting of protected and native species. Threats impact both protected areas and non-protected areas. This project will invest in actions to better understand and evaluate threats and to incorporate cross-sector issues into planning.
7. The PAN has been operational for over a decade and has improved drastically in its performance in the past five years. During a recently-concluded sub-regional Micronesia Challenge GEF 4 project, the PAN expanded to include sites in 13 states and increased long-term sustainable financing. A PAN Office has been established, empowered, and funded and has been active. Staff and stakeholders have been trained. Key last steps remain in improving the PAN's functionality so that it can deliver national and global biodiversity benefits and maximize local socioeconomic benefits for community through direct revenue generation and indirectly through improved natural resource availability. The current structure of the PAN directs the majority of its funds to PAN sites, which by Constitutional Authority are owned by individual states. However, technical expertise is most often provided at the national level. This project will invest in the last few steps at the national level to complete establishing the PAN, including developing an overarching, scientifically-based plan and finalizing monitoring and evaluation tools and protocols that indicate management effectiveness (and which feed into Palau's overall Management Effectiveness Tracking Tool (METT)) so that adaptive management can be achieved. The METT used throughout this project will be comprehensive and will measure many more parameters than those required as a minimum in the

"Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5", the GEF METT Excel Table. The PAN component of this project will largely result in benefits within protected areas. Socioeconomic benefits will arise from improved management of protected areas, including direct benefits such as increased revenues from tourism, fees, and fines, and indirect benefits such as improved sustainable harvesting and catch-per-unit values.

8. SLM is a new approach but has quickly been recognized as essential for securing gains made from protected areas and PAN and for ensuring national goals such as food security. Capacity for SLM is severely limited and there are few SLM plans – such as land use plans and master plans – at the state and watershed level are few. This project will invest in key "kickstarter" actions that will provide momentum for SLM. This includes developing national a coordination structure and improving land use planning. Inclusion of the SLM component will result in benefits for natural areas *beyond* the PAN and protected areas. There will be direct benefits to land that is better managed, as well as indirect benefits to downstream waters and adjacent lands, whether protected or not. A specific focus on ecotourism as part of this component will yield direct socioeconomic benefits in increased revenues and employment. The SLM Component provides specific benefits to marginalized populations and women. Downstream effects of improved land management will also maintain food security.
9. Thus this project has three components: 1) Strengthening the PAN by filling key planning and information gaps; 2) Providing momentum to SLM by implementing its top two priorities of establishing a coordinating body and developing best practice guidelines; and 3) Developing formal mechanisms to coordinate PAN and SLM and incorporate cross-sector issues into development and conservation activities at multiple scales. The Project will support other national, regional, and local UNEP and GEF supported programs, particularly the Ridge to Reef approach. The Coordination Component (3) will include specific arrangements for coordination the cross-sector issues of climate change, IAS, SFM, and ridge-to-reef erosion control.
10. This project is aligned with GEF Focal Areas in Biodiversity, International Waters, Land Degradation, and Sustainable Forest Management.
11. Site interventions include a mixture of national and state level planning, policy development, capacity building, and outreach, as well as local level research and field interventions. Field interventions, and thus on-the-ground activities and direct impacts are minimal in this project as they have been the focus of more than two decades of investment in conservation in Palau. This project will help Palau's organizations improve the performance of its existing activities, and better measures and evaluate the impact and progress of its current objectives and programs.
12. Key outcomes will include a) expanding the number of PAN sites by a minimum of 4 and protected area extent by a minimum of 95,000 ha marine and 6,300 ha terrestrial[1]; as well as ensuring representation of endangered megafauna and trees

[1] Inclusion of 4 new PAN sites will represent a 19% increase (from 21 current to 25). Inclusion of an additional 95,000 hectares of marine areas would be a 400% increase (from 23,000 hectares currently to 138,000 targeted) and would represent over 35% of Palau's total nearshore marine areas. Inclusion of an

and endemic species, b) improving monitoring and evaluation tools and protocols and creating feedback loops for adaptive management, thereby meeting effective conservation criteria in at least 9 sites and meeting Palau's 30/20% spatial protection commitment to the Micronesia Challenge, c) creating a framework for sustainable tourism, d) improving sustainable financing for both PAN and SLM, e) reducing threats through land use planning in 4 states, f) increasing the area under sustainable forest management by at least 8,000 ha[2], and g) developing a standardized coordination, evaluation, and conflict-resolution mechanism at the state and national levels. Compared to the baseline GEF METT Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5 (submitted with the Project Document), this will mean improvements (as listed in footnote #1 below) in Total Hectares Protected (Objective 1, Section I); a decrease in Threat score and increase in Assessment form score for at least 4 targeted sites (Objective 1, Section II), an increase in the total and/or component scores for Financial Sustainability (Objective 1, Section III), an increase in total area where Management Practices are applied (Objective 2, Part III), and an increase in the score for Policy and Regulatory Frameworks (Objective 2, Part V, #6).

13. Global environmental benefits include protection of habitats for at least 5 globally endangered birds, 3 endangered reptiles, 2 endangered mammals, 3 endangered plants, and countless other endemic and native flora and fauna, as well as improving conservation status for 2 species. It will improve management and reduce indirect pressures on a World Heritage Site, a Biosphere Reserve, and Ramsar Site. The estimated carbon benefit of the project is the additional sequestration of 141,867 tonnes of CO_2 per year. This project includes several innovative approaches to conservation that can be scaled to other islands or small countries, including: 1) a model of national level of coordination for streamlining and aligning environmental activities, 2) incorporation of robust Management Effectiveness Tracking Tools as an integral part of conservation, not as add-ons at the end of projects, but as integral to the project, and 3) a holistic approach to achieving a wide variety of biodiversity goals at the same time through local actions and big-picture national planning and coordination. Given that this project will positively impact all five of the Aichi Biodiversity Strategic Goals and 12 of 20 targets, it will serve as a model for moving away from piecemeal conservation to integrated actions where benefits go beyond the immediate targeted area.
14. Important local benefits include protection of water sources and minimization of erosion and water pollution, increased food security due to habitat protection and restoration, and expanded income generation opportunities from sustainable use of resources or sustainable tourism.
15. This project leverages nearly $16 million dollars in co-financing for just under a $4 million dollar investment by the GEF. Given the many years of local level investment and the projected global environmental values, this project provides extremely good value for funds spent.

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additional 6,300 hectares of terrestrial areas would be a 150% increase (from 4,200 hectares currently to 10,500 targeted) and would represent over 20% of Palau's total land (terrestrial) area.

[2] The current area under SFM is unknown. 8,000 hectares represents 1/3 of Palau's forest area.

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Acronyms and Abbreviations

APR	Annual Project Report
BLS	Bureau of Land and Survey
BNM	Belau National Museum
BOA	Bureau of Agriculture
BOE	Bureau of Environment
BOT	Bureau of Tourism
BWA	Belau Watershed Alliance
CBD	Convention on Biological Diversity
CBO	Community Based Organization
CoF	Co-finance
COFA	Compact of Free Association
DEPI	Division of Environment Policy Implementation (GEF administration for UNEP)
EBA	Endemic Bird Area
eBird	http://ebird.org/content/ebird/about/
EBM	Ecosystem Based Management
EEZ	Exclusive Economic Zone
ENSO	El Nino Southern Oscillation
EO	Evaluation Office
EQPB	Environmental Quality Protection Board
FIA	Forest Inventory and Analysis
GDP	Gross Domestic Product
GEB	Global Environmental Benefit
GEF	Global Environment Fund
GF	Green Fee
GHG	Greenhouse Gas
GTI	Global Taxonomy Initiative
IAS	Invasive Alien Species
IBA	Important Bird Area
IUCN	International Union for the Conservation of Nature
IW	Inception Workshop
IWLCM	Integrated Watershed and Coastal Area Management
IWRM	Integrated Water Resource Management
LMO	Living Modified Organisms
M&E	Monitoring and Evaluation
MC	Micronesia Challenge
MDG	Millennium Development Goal
MEA	Multilateral Environmental Agreement
METT	Management Effectiveness Tracking Tools
MNRET	Ministry of Natural Resources, Environment, and Tourism
MOE	Ministry of Education
MOU	Memorandum of Understanding
MOV	Means of Verification

MPA	Marine Protected Area
MPIIC	Ministry of Public Infrastructure, Industries and Commerce
MSP	Marine Spatial Planning
NGO	Nongovernmental Organization
OERC	Office of Environmental Response and Coordination
PACC	Pacific Adaptation to Climate Change
PALARIS	Palau Automated Land and Resource Information System
PAME	Protected Area Management Effectiveness
PAN	Protected Areas Network
PCC	Palau Community College
PCS	Palau Conservation Society
PICRC	Palau International Coral Reef Center
PIR	Project Implementation Review
PLA	Public Lands Authority
PMU	Project Management Unit
PNC	Palau National Code
PNCA	Palau National Code Act
PPLA	Palau Public Lands Authority
PVA	Palau Visitors Center
R2R	Ridge to Reef
RISL	Rock Islands Southern Lagoon
RPPL	Republic of Palau Public Law
SFM	Sustainable Forest Management
SIDS	Small Island Developing State
SLM	Sustainable Land Management
SOP	Standard Operation Procedure
SOPAC	Applied Geoscience and Technology Division, Secretariat of the Pacific Community
SPAG	Spawning and Aggregation Site
SPREP	Secretariat of the Pacific Regional Environment Program
SST	Sea Surface Temperature
SWARS	Statewide Assessment of Forest Resources
TNC	The Nature Conservancy
TOR	Terms of Reference
Tri-Org	A collaboration between the Palau Visitor's Authority, Belau Tourism Association, and Palau Chamber of Commerce
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United Nations Development Assistance Framework
	United Nations Development Program
UNEP	United Nations Environment Program
UNEP PO	United Nations Environment Program Pacific Office
UNESCO	United Nations Educational, Scientific and Cultural Organization

SECTION 2: BACKGROUND AND SITUATION ANALYSIS (BASELINE COURSE OF ACTION)

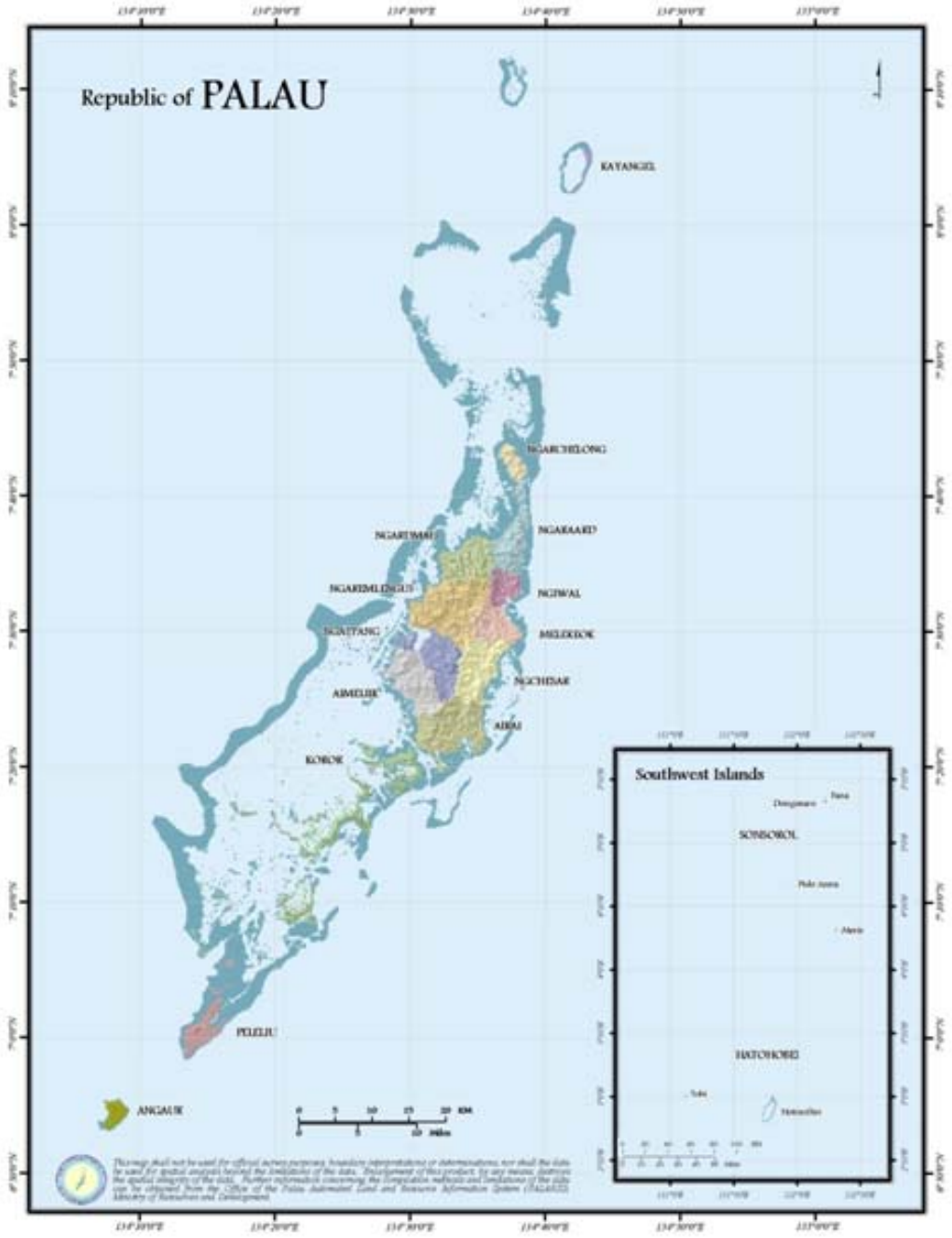
2.1 Background and context

1. Palau has been blessed with an exceptional array of biological diversity, both on land and in the ocean. The marine sector has diverse marine habitats within a relatively limited area and is home to diverse and abundant endemic, native, and endangered marine life (Colin, 2009). Palau's forests and terrestrial diversity are the most biodiverse in Micronesia (Olkeriil, 2012; Kitalong, 2010; Costion, 2007). Palau's population is highly reliant on its natural resources for both subsistence and commercial livelihoods. Palau's marine environment in particular underpins the nation's primary economic industry, tourism. Palauan culture is closely linked with the environment.
2. Urbanization and development have resulted in substantial changes to the environment in some areas. Near-shore ecosystems are heavily influenced by land use in nearby terrestrial areas. As a result, seagrass beds, mudflats, mangroves, and reefs located near development are experiencing increased pressure from land based activities. Terrestrial and water resources also face direct and indirect pressures.
3. Much of Palau's environment is still in a healthy state (BOA, 2013; CRRF and Palau Forestry, 2013; . This, combined with its exceptional variety of biodiversity, makes it a critical area for protection. Preserving healthy terrestrial and marine ecosystems is not only important to protect biological diversity and to secure the country's economic base, it is also a fundamental requirement towards attaining food security and livelihoods for local communities. Research on the marine sector has returned robust findings on areas of marine health and resiliency, and many resilient areas (particularly among coral ecosystems) have been identified.
4. Palau has a growing and robust environmental sector, with active participants from government, nonprofit, academic, and business sectors. There are links between traditional and modern best practices and governance systems. Political administrations have recognized the dependence of Palauans on the natural environment for direct sustenance and monetary income, and numerous environmental issues and offices have been elevated to the national level. Natural resource management and conservation in Palau has a two-pronged approach: 1) protected areas to conserve threatened species and areas of high biodiversity; and 2) broader sustainable land management beyond protected areas and the PAN, which encompasses everything from construction regulations and building permits to harvesting limits and restrictions on allowable catch size. In the past decade Palau has sought to institutionalize these two areas of conservation management: 1) The Protected Areas Network (PAN) as a coordinated national framework for aligning and standardizing management of protected areas, and 2) the Sustainable Land Management (SLM) Initiative, which seeks to align, standardize, and minimize broader impacts of land use. The SLM initiative considers all lands, waters, and natural resources based on the boundaries of Palau's 16 states (**Map 1**), out to 12 nautical miles; thus, all forests and protected areas fall within the purview of the SLM initiative. The PAN can include areas within the Exclusive Economic Zone (EEZ); but this project focuses exclusively on areas within the 12 mile nautical border. Palau has

decades-long investments into conservation areas and protected areas, but has only recently begun investing directly in broader Sustainable Land Management.

5. There are still many gaps in coordination, understanding, and capacity to fully achieve national environmental goals. This project seeks to fill key gaps and capitalize on existing investments and gains. This Project will accomplish three strategic components: 1) Strengthen the Protected Areas Network (PAN); 2) Implement a National Sustainable Land Management (SLM) policy; and 3) Develop an effective method for coordinating PAN and SLM policies and activities and addressing cross-sector issues. The Project will support other national, regional, and local UNEP and GEF supported programs, particularly the Ridge to Reef approach.

Map 1. Political map of Palau.



Geographical Environment

6. The Republic of Palau is an archipelago in the Pacific Ocean, located approximately 800 km north of Papua New Guinea and 800 km east of the Philippines. The country has an Exclusive Economic Zone (EEZ) of 3,120,000 km^2, and a total land area of 488 km^2. The land area is comprised of over 700 islands, stretching more than 650 km from the atoll of Kayangel in the north to the islet of Helen Reef and Hatohobei in the south. Only 12 islands are continuously inhabited and most islands are small and rocky. Some islands, particularly in the Rock Islands Southern Lagoon, include

amenities to support recreation. The majority of islands (and population) are found within Palau's main archipelago. Six Southwest Islands are 300 to 650 kilometers southwest of the archipelago (**Map 1**).

7. Four distinct island types are found in Palau: 1) atoll islands (Ngeruangel Island in Kayangel State, Ngemelis Island in Koror State, Helen Reef in Hatohobei State), 2) high limestone islands (the Rock Islands), 3) low platform islands (Peleliu, Angaur, Southwest Islands), and 4) high volcanic islands (Babeldaob, Ngarakebesang, Malakal, western Koror). Terrain varies from low coral islands fringed by large barrier reefs to the high mountainous main island of Babeldaob with rivers, wetlands, and 10 large watersheds. Babeldaob is the largest island in Palau, and, after Guam, the second-largest island in Micronesia. Babeldaob comprises 75% (365 km^2) of the country's total land mass.
8. Temperatures in Palau have little seasonal variation. Mean daily air temperature is around 28°C and the average relative humidity is 82%. Air temperatures are closely related to sea-surface temperatures. February, March, and April are the driest months and the main wet season is from May to October, with the heaviest rainfall between June and August. Average rainfall remains above 200 mm. Winds are generally moderate. Inter-annual variability in rainfall is high and is mainly influenced by the El Niño-Southern Oscillation (ENSO). Generally, El Nino years are drier than average and La Nina years are wetter. The extended dry season can lead to water rationing. Palau is south of the normal typhoon belt of the western North Pacific, and consequently typhoons rarely hit Palau. Highest tides tend to occur around the equinoxes, with the September peak the larger of the two. Tidal range peaks at just over two meters.

2.2 Global Significance

9. Distributed across the hundreds of islands that make up Palau are numerous habitats, including:
    - *(a)* Forests—upland forests, swamp forests, limestone forests, atoll forests, and mangrove forests;
    - *(b)* Savanna and grasslands;
    - *(c)* Freshwater habitats—rivers, streams, lakes, swamps, and taro patches;
    - *(d)* Brackish water habitats—wetlands and coastal lagoons;
    - *(e)* Marine lakes;
    - *(f)* Nearshore habitats—mudflats, seagrass beds, sandy beaches; and,
    - *(g)* Coral reefs—barrier reefs, patch reefs, fringing, and atoll reefs.
10. Palau's geographical and geological characteristics (island isolation with proximity to the Asian mainland) have allowed for extensive development of biodiversity, with over 7,000 terrestrial (Kitalong, 2010) and 10,000 marine species known to exist in the country (Colin, 2009; Golbuu, 2000). Palau has the most diverse terrestrial biodiversity in the Micronesia region, and one of the most biologically diverse underwater environments globally. New species are regularly discovered and described.

Marine Systems

11. Within Palau's small geographic area is varied underwater topography, which has led to the development of an exceptional variety of marine habitat types within a

relatively small area, including barrier, patch, fringing, and atoll reefs, channels, tunnels, caves, arches, and coves, in addition to other habitats such as seagrass beds and marine lakes. Measurements by the Palau Automated Land Resource Information System (PALARIS) indicate that coral reefs cover an area of approximately 667 km^2, not including the Southwest Islands, and enclose a lagoon area of approximately 1136 km^2. Marine reseach has identified many areas of coral in the Rock Islands and around Babeldaob's lagoons that are resilient to climate change, particularly bleaching.

12. Considered one of the "Seven Underwater Wonders of the World," Palau has the highest levels of marine biodiversity within Micronesia (Olkeriil, 2012; Colin, 2009; Maragos and Cook, 1995; Birkeland and Manner, 1989), and is on the north-eastern margin of the area called "the Coral Triangle," which has the highest diversity of shallow-water marine species in the world. Palau supports more than 350 species of hard coral, 200 species of soft coral, over 300 species of sponges and more than 1,500 species of reef fish. Some of the marine life include endangered megafauna, such as the endemic *Dugong dugon*, the hawksbill turtle, *Eretmochelys imbricata*, the green turtle *Chelonia mydas*, along with at least 13 species of sharks and manta rays, 7 species of giant clams (of 9 total species), a rare marine endemic, *Nautilus belauensis,* and over a dozen species of whales and dolphins. However, of the more than 10,000 species in Palau's marine environment, only two major groups of marine organisms can be considered "well-studied": the scleractinian (stony) corals and coral reef fishes. In 2014 Palau opened its first lab with genetic analysis capabilities, but on the whole Palau's biodiversity is still not fully documented and taxonomic capacity in Palau is limited.
13. The islands are of interest to science, as new species are found regularly, with many considered endemic. In 2011 a new species of marine eel, *Protanguilla palau*, was discovered in the rock islands. *Protanguilla palau* is a living fossil, representing a previously unknown family of eels and demonstrating characteristics of early eel evolution. Such discoveries underscore the need for further study and conservation of Palau's biological resources. Palau is the site of much international research on the resiliency of marine ecosystems, particularly coral ecosystems, and the incorporation of such findings into management regimes is of interest to the scientific and global resource management communities.
14. Palau has extensive seagrass beds, which are important as nursery grounds providing food and shelter for multiple species. They also function in sediment accumulation and stabilization. There are 10 species of seagrass in Palau, the most in Micronesia. *Thalassia hemprichii* and *Enhalus acroides* are the most abundant and dominant species of seagrasses in Palau, and are a main food source for fish, invertebrates, and dugongs.
15. Ongoing research on marine mammals is showing Palau to have a variety of species either living or passing through Palau's waters. Data on bycatch and marine fisheries interactions with pelagic marine mammals show few recorded interactions, making Palau a possible safe haven for these species.
16. Palau also has more than 70 marine lakes – the highest number and density in the world (Olkeriil, 2012) – of which five are home to stingless jellyfish that have evolved in these unique ecosystems. The world-famous Jellyfish Lake offers tourists a chance

to swim with stingless jellyfish. The evolution of these jellyfish represents another area of extreme interest to science and researchers from all over the world.

17. Palau's reefs have suffered high levels of coral bleaching and mortality following the 1998 El Niño Southern Oscillation (ENSO) event. ENSO events are expected to increase in frequency and intensity in the future.

Mangroves

18. Mangrove forests occur along the lower portions of rivers, on coastal mudflats, and on some offshore islets. Well-developed stands may be 15 to 20 meters in height. Mangroves are one of the most significant ecosystems in Palau, covering over 48km^2 and representing 11% of Palau's vegetation (15% of total forest area). Palau's mangrove forests include 19 species of mangrove tree as well as other associated plant species. *Rhizophora* spp. are the dominant mangrove species in Palau, but some *Bruguiera gymnorrhiza* are also found. On the seaward side of the forest, *Sonneratia alba* and *Rhizophora mucronata* are dominant.
19. Mangroves are vitally important to Palau. Their complex root structures allow them to survive storms and surges, and to protect coastal communities from coastal erosion. Mangroves serve as buffer areas that provide a transitional zone between terrestrial and marine ecosystems. They trap sediment, which simultaneously stabilizes coastal areas and maintains Palau's pristine marine ecosystems.
20. Mangroves provide nursery and feeding grounds for fish and other marine animals that Palauans rely on for food security and income. Mangroves are habitat for Micronesia's only resident population of saltwater crocodiles, numerous resident and migratory bird species, and also several invertebrate species such as mangrove crabs and clams. Mangrove trees are utilized for medicinal and traditional purposes and are also harvested for timber.

Terrestrial Systems

21. Palau has the most extensive and species-rich forests in Micronesia. Forests in Palau are considered some of the most intact in the Pacific. Approximately 70-75% of the land area is forest. There are nine types of forest: lowland tropical rainforest (found on the high volcanic islands), swamp forest, mangrove forest, atoll forest, Casuarina forest, limestone forest (with a subtype in the Rock Islands), plantation forest, and palm forest. Lowland forest is the most widely distributed forest type, comprising 70% of all the forest, with smaller areas of swamp forest, limestone forest, and other forest types. Remaining terrestrial land area includes grasslands, cropland, or urban development. Over 300 km^2 of continuous native forest cover throughout the islands. Agro-forest covers over 10 km^2 and is dominated by coconut stands.
22. Between 2001 and 2005 there was a net 1.5% decrease in forest cover and a 5.8% increase in non-vegetative cover on Babeldaob.
23. Palau has more than 1,350 species of plants, of which over 860 are native. Two bat species, 92 species of land snails, and 46 species of herpetofauna and at least 5,000 insects have been described. One of the bat species (*Microchiropteran Embellonura palauensis*) has gone extinct elsewhere in the Pacific adding biogeographic importance to this relatively common animal in Palau. Endemism is high, and there are approximately 1,000 endemic species – most found primarily in terrestrial

habitats. Endemics include nearly 200 plant species (including 60 species of orchids), as many as 300 terrestrial gastropods and 500 insects, 10 birds, 12 amphibians and reptiles, two freshwater fishes, and a bat.

24. Information on the conservation status of plants is limited. Currently the rare endangered palm, *Ponapea palauensis* of the Rock Islands and the endangered *Parkia parvifoliola* of the volcanic island of Babeldaob are being nominated as endangered species using the IUCN criteria. At least 64 endemic plants of the volcanic islands are being nominated as vulnerable.
25. At least 162 bird species including 111 migratory birds and 51 resident species (of which 10 are endemic) have been recorded in Palau. There are five globally threatened birds in Palau. A small but stable population of endangered megapode, *Megapodius laperouse,* exists throughout Palau's main archipelago. All of Palau's endemic and endangered birds use forests during all or part of their life cycle. Six Important Bird Areas (IBA) are confirmed and six additional areas, including two marine IBAs, are proposed. Palau falls within the Micronesia Endemic Bird Area (EBA).
26. In addition to their direct biodiversity values Palau's forests provide vital ecological services that maintain the health and ecological integrity of adjacent and downstream terrestrial and marine ecosystems, such as prevention of soil erosion, sediment trapping, temperature stabilization, soil production and conservation, water resourcing. Forests are used as sources of firewood, medicine, building materials and as areas to forage and hunt for food.
27. Wild areas without a continuous tree canopy are categorized as savanna. This category includes areas of predominantly bare soil, fern lands, grasslands, and savanna shrub lands. Much of this open land is the result of human activities, however, many support a variety of native and even some endemic plant species. Some of these species are found only in savannas.
28. Palau's swamp forests are the most diverse in Micronesia. However, they are also the most limited forest type in terms of area, making up only 2% of the forest and 1% of Palau's total land area. Swamp forests are threatened by access and encroachment.

2.3 Institutional, sectoral, and policy context

Demographic and Governance Information

29. A mini-census completed in 2012 estimated Palau's population to be 17,501, representing a possible decline from 19,129 measured in the previous 2005 census, and marking what could be the first population decline since the end of World War II. The estimated average rate of natural increase is 1.2%. Infant mortality is 16.2 for every 1,000 births.
30. 73% of the population is of Palauan descent, while foreign workers from the Philippines, Taiwan, and other countries comprise the remaining 27%.
31. Population density per square mile is estimated at 102 (39 people per km^2). The majority of Palau's population lives in the states of Koror and Airai, with approximately 65% (11,600) of the population living in Koror and a population density of 1,666 people per square mile (648 people per km^2). Airai has the second-largest population, with just over 2,500 people (149 people per square mile; 58 per km^2), but is growing rapidly both in total population and in the area developed. Koror

is currently the most urbanized area in Palau and is the economic center, while Airai is home to many commuters who work in Koror. Palau's Capital moved to Ngerelmud in Melekeok in 2006; Melekeok is also experiencing rapid population growth. The smallest populated areas are the Southwest Island group, which are home to only sixty people. Most of the people from the Southwest Islands have moved to Koror for work and education opportunities. Completion of an 83-km ring road around Babeldaob has made access to the island easier, and residential and commercial development in those states have increased significantly. It appears that population growth in Koror may have slowed to a net value of 0%.

32. Palau is governed by a Constitution and a democratically elected officials. Elected officials work in tandem with Traditional Leaders, who at the National level serve in an official advisory role. Palau is comprised of 16 states, with their own municipal governments that are a mix of elected and traditional leaders. Both genders are represented in the traditional decision making system. Traditionally, Palau women are recognized as leaders in their households, communities and clans. Palauan women have decision making authority. Present day women, among Palauan men are participants to wage labor. In relation to the history of national politics, Palau has had one female vice president and has slowly increased the number of women in National Congress and in Ministerial Positions. Several states have elected female Governors. In the public service, women dominate the judicial branch of government and many women sit on public sector boards and commissions. The Government established a Gender Division under the Bureau of Aging and Gender in the Ministry of Community and Cultural Affairs which is tasked with mainstreaming gender issues and achieving gender parity in national plans and actions.
33. The Constitution grants ownership of all lands and waters out to 12 nautical miles to the state governments. The national government shall own no land; thus all protected areas must involve local state government or private partnerships.
34. Land tenure in Palau is deeply rooted in the social structure, with ties to family, clan, and traditional leadership structures, but also affected by policies and boundaries put in place during the German and Japanese colonial periods, which removed most lands from private ownerships. The constitution requires the return of applicable lands to original ownership. Palau has traditionally been a matriarchal society with traditional land tenure flowing through the woman's side of a family. Both women and men own and lease land.
35. Land is divided into private and public lands. Private land is titled either individually or by a clan. The process for determining land ownership and registration is set forth in Title 35 of the Palau National Code (PNC). The Palau Public Lands Authority (PPLA), as set forth in Title 35 of the PNC, administers national public lands. The PPLA is in the process of transferring all public lands to state public lands authorities (PLAs), and provides advice and operational guidance to the state PLAs. Not all states have established PLAs, while lands within some states are entirely privately owned.
36. Determining land tenure is complicated by both the mix of governance regimes and by complex and disputed ownership claims. Difficulties in assigning title hinder all types of land decisions, from development to conservation. The national government has established a separate Land Court and implemented processes for streamlining the title and tenure process, but it still remains tedious.

37. Palau's GDP is of the order of $247 million per year (2013). Real GDP per capita in 2012 was US$10,849; relatively high for islands in the Pacific. Palau has signed a Compact of Free Association (COFA) with the United States, which provides declining annual restricted funds to Palau. The intent of the COFA is to promote economic and technical self-sufficiency. The government (all levels) is the largest employer in the nation (25%). Tourism is the next largest sector and agriculture and fisheries are priority areas that are growing. Agriculture and fisheries sectors make only a small contribution to GDP (around 4%). However, these two sectors provide the main livelihood for about 20% of Palau's population, and are therefore an important part of the informal economy. While less likely to participate in the formal labour market, when women do enter the workforce, on average they earn more than men.
38. Primary education is guaranteed for all by the Palau constitution and attendance rates reach 100% in most locations. College attendance rates are high and there is a local college, the Palau Community College. However, there is a shortage in the number of trained conservation workers in Palau. There are gaps in understanding of science and environmental issues. Gender parity in education has been achieved.
39. The Palauan cultural identity and most traditional practices are closely linked with the natural environment or reliant on native species and natural habitats and ecosystem processes. Subsistence economies are 100% reliant on the natural environment, and the majority of Palau's commercial economy is also reliant on the natural surrounding or productivity of natural resources.
40. Socioeconomic surveys at all levels and among all sectors of the population indicates strong support for the conservation and environmental sector, although that support is balanced with desire to grow commercially.

Tourism Sector

41. After public administration, tourism is the second major contributor to the formal economy. Total receipts from tourism in Palau is approximately US$164 million annually, accounting for 50% of current GDP, more than twice the Pacific island average and among the highest in the world.
42. Tourism has more than doubled since the early 1990s, with new records for the number of arrivals being set virtually every year. International tourism arrivals in 2013 were 114,000, up from 57,000 in 2000. The Palau Visitors Authority (PVA) anticipates that this trend will continue, projecting that the number of visitors will double to 200,000 per year by 2020. Hotels operate at nearly full capacity for much of the year (1,400 rooms).
43. Considered one of the top ten dive sites in the world, Palau's underwater environment is the primary tourist attraction. Most tourists spend the majority of their time in Koror and the Rock Islands Southern Lagoon (RISL), which is a UNESCO World Heritage Site. Many sites in the RISL are fragile and showing signs of stress (such as broken coral and visible surface pollution). Land-based tourism lags far behind marine tourism, but with improved access and improving infrastructure, combined with a decentralizing population, land-based tourism is growing. Land-based tourism includes cultural and environmental tourism, often packaged together. There is strong potential for diversification and expansion of land-based tourism activities.

44. The majority of visitors (80%) come from Asia (China, Japan, and Korea). The Palau Visitor Authority estimates that the average amount of spending per tourist is around US$1000-1200 per visit, and appears to have remained flat or even declined in the past decade, despite the increase in tourist arrivals. There is general agreement that Palau should market to higher-spending tourists, but the process for doing so is not agreed.
45. Tourism is a highly volatile sector, with drops in tourist arrivals mirroring global financial downturns.
46. Tourism accounts for the majority of economic growth (75%) among all industries in Palau (including the public sector). Tourism accounts for 40% of total employment in Palau and 50% of employment among foreigners. Foreign workers are represented by both men and women. The 2014 National Review on implementation of the Beijing Declaration and Platform for Action noted particular challenges for the Foreign Worker population being that there is no comprehensive Labor Policy and workers are not granted equal rights as all other people living in Palau.
47. Direct and indirect impacts of tourism on the environment is of growing concern and has spurred much of the movement towards Sustainable Land Management. Direct impact of tourists on fragile marine habitats, particularly coral reefs and Jellyfish Lake, are of concern; indirect effects of development and unsustainable harvesting levels spurred by tourism growth are of additional concern. Proposals for development are often driven by the Tourism sector. Proposals for development have included major resort hotels, golf courses, casinos, a new port, and a free trade zone.

Agriculture and Forestry Sector

48. Commercial agriculture may provide up to 3% of GDP. In 2014 there were at least 20 small commercial agriculture operations in Palau, and nearly all are located on Babeldaob. The impact of commercial agriculture to GDP has declined from around 20% in 1992 to less than 3% in 2010. Approximately only 1.5% of Palau's population was dependent on agriculture in 2012.
49. Although local food production is increasing, Palau relies on food imports. 2000 imports included 1.1 million pounds of chicken and 3.3 million pounds of rice.
50. Subsistence farming continues to be of cultural importance. Most women maintain a taro patch. Traditionally and today, farming and land-based food production has been the responsibility of women. Foreign male workers are also engaged in the farming sector.
51. Increasing both commercial and subsistence agriculture and production of food for local consumption is a key element of Palau's long-term food security and development plans. This includes expansion of farm number, size, and species (including animal husbandry). Key limitations are cost and technical capacity.
52. Palau's agricultural systems include agroforestry, dry and wet taro farming, clean till agriculture, fruit tree orchards and reforestation. Traditional crops in Palau have included true taro (*Colocasia esculenta*), giant taro (*Alocassia macrorrhiza*), cassava (*Manihot esculenta*), sweet potato (*Ipomoea batatas*), true yam (*Dioscorea esculenta*), bitter yam (*Dioscorea bulbifera*), Pawpaw (*Carica papaya*), betel nut (*Areca catechu*), banana (*Musa* spp.) and coconut (*Cocos nucifera*). Recent introductions to Palauan agriculture are Chinese cabbage (*Brassica chinesis*), eggplant (*Solanum melongena*),

squash (*Cucurbita maxima*), and watermelon (*Cucmis melo*). There are also many small-scale livestock operations raising pigs and chickens.

53. The soils of Palau are mostly ancient and of volcanic origin. They have been heavily leached by the high rainfall over a long period and are generally deficient in phosphorous, nitrogen, and calcium. Potassium, manganese, iron, and aluminum levels are mostly high. Most soils in Palau are well drained upland latosols of silty clay loams. These highly acidic, nutrient-poor soils make large-scale agriculture unfeasible. Soils on upper slopes are mostly highly leached. Soils at the base of slopes are richer. These highly erodible clays and silts remain suspended in water; and studies of Airai Bay have shown that negative impacts of soil sedimentation remain for decades.
54. Water availability is high and not a limiting factor.
55. For small-scale farming, soil fertility can be improved through composting or with the use of fertilizer. While traditional farming practices incorporated composting of organic debris, current practices favor open burning of plant wastes. This unsustainable farming practice releases nutrients for quick access by plants and allows the soil to support crops for only a short while. However, open burning leads to loss of soil organic matter. Burning also kills microorganisms that can support healthy plant growth, and is leading to long-term land degradation over time.
56. Virtually all of Palau's farms are located alongside streams and mangroves, and runoff from farms contributes to surface water contamination.
57. There are no large-scale commercial forestry operations in Palau. Timber is harvested at the individual level and limited in scope. Mangrove forests are most often used for timber harvests.
58. Forestry management is prioritized for water, soil, and biodiversity conservation, with some emphasis on recreation and tourism. National strategies include expanding livelihoods based on sustainable forest products (non-timber). Hunting occurs in forests (legal and prohibited).
59. Palau does not have a national policy on agriculture or forestry.

Fisheries and Aquaculture Sector

60. The fisheries sector consists of nearshore/coastal subsistence and commercial fishing, offshore commercial fishing, limited sports fishing, and limited aquaculture. Both men and women participate in fisheries. Traditionally and today is it men who participate in vertebrate fishing for both subsistence and commercially, and women gather invertebrates.
61. As with most islands in Oceania, Palauan communities have traditionally and continue to rely on nearshore fisheries as a major source of food and income. Although the sector represents as little as 3% of national GDP, it accounts for primary employment and income for 20% of Palauan families. Most nearshore fish catches are consumed in the home or sold in local markets; few coastal fisheries are export-oriented (trochus and aquarium fish). Estimates of the value of nearshore fisheries varies widely, but may be as high as US$2.8 million. The most important resources are reef finfish, pelagic fish, mangrove crab, lobster, trochus (for both shells and meat), giant clam, beche-de-mer, and other invertebrates.
62. Fishing activity has shifted rapidly in the past decade from traditional, low-impact methods to higher impact, modern methods (using speed boats and commercially

purchased equipment). 25% of Palauan families own a speed boat, and through clan affiliations, nearly 100% of fishers in Palau have access to a speed boat. Fishers using a boat are predominantly male.

63. Coastal fisheries are declining across all utilized species, as measured by biological counts and socioeconomic perception and income surveys. Palau's national Development Policies and Plans, such as Palau's Medium Term Sustainable Development Plan, prioritize sustainable fisheries as essential for food security and commercial livelihoods.
64. Although comparatively small, the average annual income of Palau's offshore commercial fishing industry amounts to nearly $3.5 million per year. There are three commercial fishing companies in Palau that mainly target tuna. In 2012 114 tuna vessels were active in Palau. All fish caught are processed and sold off-island. The size of Palau's EEZ makes policing tuna vessels difficult.
65. There are few successful commercial aquaculture operations in Palau, which are hindered by cost, technical capacity, and environmental and land tenure issues. Palau has successfully piloted aquaculture of Giant Clam species and there have been limited successes in aquaculture of mangrove crabs, milkfish, and some crustaceans. Milkfish has been farmed traditionally, but not extensively. Palau's national Development Policies and Plans prioritize expanded commercial aquaculture.

Construction and Development Sector

66. Development pressure is high in Palau. Much development pressure is driven by the tourism industry, resulting in construction of hotels, tourism facilities, and associated infrastructure. Additional development pressure comes from improving per capita income, as well as from improved access to Babeldaob from completion of the 83-km ring road and resulting migration and is in the form of home/apartment construction, local roads, and associated support structures. Much of Babeldaob was previously inaccessible and thus had native forest and areas of pristine biodiversity.
67. Peaks in income from the construction sector have been associated with large national and international development projects, such as an airport runway expansion, Koror-Babeldaob Bridge, construction of the National Highway, and construction of the new Capital building at Ngerelmud. Including these large internationally-funded infrastructure projects, construction has contributed as much as 9% to Palau's GDP since 2000.
68. The Environmental Quality Protection Board is tasked with overseeing construction and development in the nation through its permitting and inspection processes; however EQPB's limited capacity (staff and technical) hinders its ability to adequately minimize negative direct impacts from construction, such as sedimentation and habitat degradation. Illegal/Off-permit construction is prevalent.

Freshwater and Water Systems

69. Rainfall in Palau is high and supports surface water production. Annual rainfall is 3,784 mm spatially per year, or 1,700 mm^3 per year. Total renewable water resources are 1,160 mm^3 per year. Water use is 55 mm per year. Water supply is generally consistent, except in times of severe drought and national disasters. ENSO oscillations have caused occasional, but widespread, droughts leading to water shortages.

70. The largest water system is in Airai and sourced from the Ngerikiil River and Watershed, which serves Koror and much of Airai, over 70% of Palau's population. The Koror/Airai Drinking Water Plant is operated by the government and supplies 4 million gallons of potable water daily. States in Babeldaob get water from surface systems and free-flowing rivers. Alternative water sources in other islands include ground water and rainwater catchment tanks. 70% of households in Babeldaob own a rainwater tank. Bottled water is an alternative water source for over 10% of the population. Although all states have their own water distribution systems and are able to test for chlorine and turbidity levels, only the Koror/Airai Plant successfully maintains its ability to deliver potable water on a daily basis.
71. Palau does have groundwater in some places, but accessing it in Koror is difficult and generally not necessary due to abundant rainfall. Utilization of narrow groundwater resources on outer islands, particularly the Kayangel atoll, is leading to saltwater intrusion into the freshwater aquafer lens.
72. The largest freshwater lake in Micronesia, Lake Ngardok is capable of holding 15 million gallons of water. Drinking water for Ngerelmud and Melekeok is sourced from just below the lake.
73. Rivers are only found on Babeldaob. The two longest rivers in Palau are the Ngerdorch and the Ngermeskang Rivers. Many watersheds in Palau are fully or partially protected, but development in watersheds, including in the Ngerikiil, is an issue, particularly for downstream biodiversity and natural resource-dependent livelihoods.
74. Palau has a draft water policy.

Climate Variability

75. Palau's 2012 Climate Change Profile suggests that the country will see increases in temperature, sea level, ocean acidification, number of "Hot Days", extreme rainfall days (increases in seasonal and annual rainfall amounts), and Sea Surface Temperature. The Profiles suggests that incidences of drought and cyclones will decline. The 2014 National Review on implementation of the Beijing Declaration and Platform for Action noted that impacts of climate change will reduce the well-being of women.

Relevant Legislation and Policy

76. Palau has a complex legislative and policy framework in place to support conservation, but legislation and policy are not streamlined and at times conflicting. Legislation and policies exist at all levels of governance, from international and regional agreements to national governmental laws, regulations, and adopted policies, to local government laws and plans, which vary widely. Even at a single level laws and policies conflict from agency to agency. Although there are many laws and policies pertaining to protected areas and protected species, there are many gaps. There are fewer laws and policies in place regarding wider Sustainable Land Management and use. One of the outcomes of this project will be to review and streamline legislation and policies.
77. Palau's Constitution tasks the national government with "conservation of a beautiful, healthful and resourceful natural environment." However, the Constitution also

concedes legal ownership of all natural resources to states extending to 12 nautical miles. Highly migratory species are exempt from state ownership. Most state constitutions reiterate the importance of the natural environment, but each state has differing priorities. Land may only be owned by Palauan citizens, but 99-year leases are legal.

78. Palau's Protected Areas Network (PAN) was established by numerous laws, amendments, and regulations. The PAN Act (Republic of Palau Public Law (RPPL) No 6-39) was first passed in 2003. The PAN Act offered a framework for long term comprehensive and representative protected areas planning and management. It established a countrywide structure that would manage terrestrial and marine protected areas as a shared and connected system. The goals of the PAN include protecting Palau's biodiversity and natural resources at the national level (while also recognizing regional and global benefits) and supporting communities to manage their protected areas sustainably. The Network is set up by memberships, as states apply for membership for their protected areas. Member sites are thus PAN Sites. Law 6-39 also laid the framework for a Green Fee, with regulations promulgated soon thereafter. RPPL 7-42 passed in 2008, establishing a PAN Fund, to be used to support members in the PAN. Implementation of the Green Fee, which is charged to non-Palauans as an additional departure tax, began in 2010. The PAN Fund was subsequently incorporated and chartered. Funds were first disbursed to states by an act of Congress in 2011; from March 2012 funds have been managed by the PAN Fund. RPPL 7-42 and Section 4 of the PAN Regulations placed administration of the PAN under Palau's Ministry of Resources and Development; however in 2008, RPPL 7-43 was enacted by the National Government to split the Ministry of Resources and Development into two separate ministries: Ministry of Natural Resources, Environment and Tourism (MNRET) and Ministry of Public Infrastructure, Industries, and Commerce (MPIIC). The PAN is currently being administered by the MNRET under this new Executive Branch structure. RPPL 7-42 and the corresponding Regulations call for the establishment of a PAN Management Committee ("Steering Committee" as stated in the Regulations; hereafter referred to as PAN Management Committee), a PAN Technical Committee and the designation of a PAN Coordinator. The PAN Technical Committee and the PAN Coordinator have been appointed, but establishing and enabling a PAN Management Committee has been a political challenge. There are numerous inconsistencies between RPPL 7-42 and the PAN regulations.

79. The PAN regulations lay out a standardized process for nomination and acceptance of protected areas into the PAN. States must apply for membership, develop a Management Plan with minimum components, and ratify the national PAN regulations (at the local level). Once accepted, there are regulations governing the disbursement of funds and reporting timelines. However, the PAN regulations and RPPL 7-42 refer to numerous Standard Operating Procedures (SOPs) that do not exist: 1) Technical committee's operational procedures guidelines; 2) Management committee's operational procedure guidelines; 3) Nomination process; 4) Technical review of application and selection criteria; 5) Final review and designation; 6) Standardized environment monitoring protocols; 7) Monitoring and reporting requirements; 8) PAN Design and Sustainable Development Plan. This project will fill several gaps,

particularly #8 with a National PAN Management Strategy and Action Plan and a PAN Sustainable Financing Plan; #4 with standardized PAN criteria and ranking system; and #6 with three harmonized Management Effectiveness Tracking Tools (METT). METT developed through this project will be comprehensive and will measure many more parameters than those required as a minimum in the "Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5", the GEF METT Excel Table.

80. The PAN regulations defines categories of protected areas following IUCN's guidelines for protected area management, from "Ia. Protected Area managed mainly for science" to "VI. Protected area managed mainly for the sustainable use of natural ecosystems" and sites may be designated PAN sites within any of those seven categories. Thus the legislative regime at the state level varies widely.
81. These inconsistencies and gaps appear to be significantly detrimental to full implementation of the PAN, both in terms of community buy-in and stakeholder participation.
82. The PAN was aligned with the Micronesia Challenge by National Congress Joint Resolution No 7-60-10.
83. Palau has a Sustainable Land Management (SLM) Policy that was developed in 2010-2012 and endorsed by elected and traditional leaders in 2012. It outlines a vision for sustainable, integrated land use and management of natural and cultural resources for both the present and future. The SLM includes specific mention of protected areas and the Protected Areas Network as it is a broad, overarching policy that pertains to the impacts of land use and management nationwide. However, there is no specific guidance on how to link the SLM and PAN.
84. The Policy is intended to be the basis for a national-level Strategic Action Plan to ensure that the policy vision becomes reality. This project will develop that Strategic Action Plan.
85. The Policy established three top priorities: 1) Establishment of a national coordinating body with the full capacity to implement SLM; 2) Creation and standardization of Development Guidelines (master plans, land use plans, zoning systems, building code); and 3) Sustainable financing regimes.
86. The Policy describes in detail eight functions of a national coordinating body, including facilitating communication between layers of government, disseminating information, assisting in land use planning, and completing the National SLM Action Plan. This project includes an outcome to identify and empower the National Coordinating Body and complete the National SLM Action Plan, with the initial focus area being tourism.
87. The SLM Policy describes in detail the elements necessary and priorities for national Development Guidelines, which should be composed of aligned state-level master plans and land use plans, zoning systems, and a national building code. Seven priorities for state plans are listed: 1) prioritizing land use to support local food production; 2) protection of water sources; 3) good management of wastewater and solid waste; 4) protection of historic and cultural sites; 5) equitable access to public facilities and infrastructures; 6) Climate Change adaptation and mitigation; 7) Implementation of existing Best Management Practices. This project will develop guidelines for these areas and implement land use and SLM planning in 4 states to incorporate them.

88. Many Best Practices have been identified, but the SLM Policy has not incorporated them into the Policy. This project will result in packages of Best Practices to be included in National and state level plans.
89. The Policy describes in detail changes necessary by the national government to ensure sustainable financing for SLM, including having the authority to charge appropriately for services. The Policy includes a detailed Sustainable Finance Plan. This project will update and review that Sustainable Finance Plan, with the immediate priority for financing to be National Coordination.
90. In addition to the three priority areas, the Policy includes 10 Comprehensive Policy Elements to be implemented over time: 1) Improve institutional arrangements; 2) Increase capacity for land use planning and SLM (including Best Practices), 3) Establish zoning and development guidelines (with particular emphasis on tourism development); 4) Strengthen enforcement capacity; 5) Raise public awareness; 6) Balance culture with economic development; 7) Develop and implement Climate Change adaptation strategies; 8) Diversify and create funding; 9) Create incentives and economic opportunities for SLM; and 10) Actively participate in International Conventions. Beyond the three priority areas (also captured in #1 and #2), this project will emphasize several of these, including #3 with the drafting of a National Sustainable Tourism Management Plan, #5 with community outreach and intervention activities, and #10 with improved capacity by Palau's Office of Environmental Response and Coordination (OERC) to take on the role of an executing agency.
91. Beyond the PAN and SLM legislation and policies, there are tens of relevant laws, policies, Executive Orders, and plans pertaining to natural resource use and biodiversity protection at the national **(Table 1)** and state levels. Most states with protected areas have designated those areas as such by state law, although there are some areas designated by traditional decree. Management plans at the state level have integrated legislation and traditional management. Membership in PAN enables joint enforcement by state and national authorities, although the process to do so is not clear. Criminal and civil penalties have been established successfully at the national level for individuals who violate environmental regulations. This is outside of traditional actions carried out as a response by Traditional Leaders. Zoning is the responsibility of individual states.

Table 1. Key National Laws Impacting Biodiversity and Natural Resource Use

Law or Regulation	Function
24 PNCA	Environmental Quality Protection Act
	Control harvesting of Endangered Species
	Control harvesting of Protected Species
	Regulate use of poisons, explosives, or chemicals
	Establishment of Ngerukewid Islands Wildlife Preserve
	Establishment of Natural Heritage Reserve System
	PAN Act
	Green Fee Regulations
27 PNCA	Marine Protection Act
	Regulate foreign fishing
	Establish fishery zones
	Establish baselines and territorial sea
28 PNCA	Foreign Investment Act
	Regulate Trade
31 PNCA	Land Planning Act
	Koror Zoning Law
	Koror Subdivision Law
34 PNCA	Regulate sanitation; Sewer Usage Act
	Plant and animal control; quarantine regulations
35 PNCA	Land Claims Reorganization Act

92. While still a member of the Trust Territories of the Pacific Islands, Palau established internal governance in 1980. In 1981, the government passed the Environmental Quality Protection Act. This law established the Environmental Quality Protection Board (EQPB), mandating that EQPB be responsible for regulating earthmoving and development of structures, water quality, public water systems, solid waste management, toilet facilities, pesticides, environmental impact statements, and air pollution. While the Environmental Quality Protection Act created EQPB and set forth its responsibilities, with few statutes to provide specific direction to management priorities, the EQPB was granted little authority to manage environmental consequences of development. In addition, as established by the constitution, states have ownership of natural resources, which can further complicate the question of which body – the state government or EQPB – has authority over environmental management issues.
93. There is currently no national Biosecurity Policy, despite the existence of a regional Micronesia Biosecurity Plan to which Palau has agreed, and authority and responsibility for biosecurity is shared among several government agencies. These agencies have strategic plans that conflict internally and externally, such as limiting exposure to non-natives while at the same time prioritizing animal husbandry of non-native species. There are numerous local-level biosecurity plans in place developed by different levels of agencies (state or national government, nonprofit) for individual islands and species. At the plan level there are many conflicts. For instance, plans for exposed soil on savannas in some protected areas call for the use of non-native nitrogen-fixing trees, while other plans at the state level prioritize use of native plants. Despite many years of work on IAS and biosecurity, there are many gaps and conflicts.

94. Palau has a National Water Policy with three goals: 1) protection and conservation of water resources; 2) access to safe, affordable, sustainable water supply and wastewater services; and 3) effective and sustainable planning and management of water supply and services.
95. Palau has developed and begun implementing a Palau Climate Change Policy For Climate and Disaster Resilient Low Emissions Development 2015.
96. Sustainability is the root of all management policies in Palau, both culturally and politically. A *bul* is a cultural practice in which traditional leaders proscribe a moratorium on fishing, hunting or harvesting in a particular area for a period of time. Palau has a long history of conservation using the power of traditional leaders. Many Best Practices incorporate traditional practices.
97. The reliance of local communities on fishing and nearshore activities means that Palau has a long traditional and legislative history of marine protected areas, and established one of the first marine protected areas in the Pacific: Ngerukewid Islands Wildlife Preserve in the Rock Island Southern Lagoon in 1956.

2.4 Threats, Root Causes, and Impacts

98. Assessments of current and anticipated threats to biodiversity in Palau, compiled from sources involving all 16 states and all major stakeholders, suggests the following general situation: 1) Climate change is directly affecting the environment and further compounding other stressors; 2) Natural habitat is being lost and degraded by direct stressors, including ridge-to-reef impacts from erosion and nonpoint source pollution; 3) Invasive alien species are displacing native species; and 4) Biological resources (forest and marine) are being over harvested and illegally harvested. This project addresses these 4 broad threats: 1) Climate Change; 2) Direct stressors causing habitat loss and degradation; 3) Invasive alien species; and 4) Over harvesting and illegal harvesting.
99. The geographical scale of Small Island Developing States (SIDS) means that ecosystem components are physically and culturally closely linked, and that degradation in one area can rapidly produce repercussions in other areas. Thus, effective natural resource management requires ecosystem-scale strategic planning, which, when lacking, can compound the problem. Ecosystem-based Management (EBM) practices are intended to address ecosystem level threats as a means to reducing localized problems, but EBM is limited by capacity, coordination, and information gaps.
100. This Project will take steps to address the general threats to biodiversity listed above, by addressing root causes (**Table 2**):

Table 2: Specific threats and root causes to biodiversity relevant to this project

	Threats and Example Impacts			
Root Cause	***Climate change***	***Habitat loss and degradation***	***Invasive alien species***	***Over- and illegal harvesting***
Priority Biodiversity Areas unknown/ unclear/ not prioritized; site connectivity not modeled	Refugia, resilient areas not protected, subject to unsustainable use Financial resources used at wrong sites; e.g. coral replenishment in a site of coral bleaching	High biodiversity areas not protected; subject to development and secondary impacts Downstream water quality negatively impacted	Priority areas not monitored for IAS, IAS actions not taken in priority areas *Fabaceae* expands in priority areas	Priority areas not protected, open to legal (over) harvesting Rare endemic trees not protected, possibly harvested
Species status and protection needs unclear	Ability to predict bleaching events declines Increasing SST further stresses fisheries	Development permits issued leading to loss of critical habitat	IAS range expands Macaques cause decline in birds	Species declines continue, particularly dugong, pigeons, wrasses
Community awareness levels low or unsupportive	Mitigation such as sea walls prioritized despite environmental damage and loss to biodiversity Food security diminishes due to lack of knowledge about storm-resistant crops and structures.	Purposeful destruction of habitat, such as with fire or logging Accidental habitat degradation from unstable, unpermitted construction, such as erosion.	Community members bring in IAS, release IAS, do not participate in volunteer-based IAS management Macaques & cats released into wild	Illegal harvesting continues at will, over harvesting ongoing Less community involvement in monitoring and self-policing
Visitor awareness low; Tour guide and conservation worker awareness low	Support for Green Fee diminishes	Negative visitor impacts, such as damaged reefs; Loss of rare plants and orchids	IAS plants introduced to Palau	Premium charges and subsequent income from eco-tours limited, not usable to diversify funding streams

Root Cause	***Threats*** and Example Impacts			
	Climate change	***Habitat loss and degradation***	***Invasive alien species***	***Over- and illegal harvesting***
Management actions ongoing without full Management Plan or Effectiveness Evaluation	Coastal wetlands, taro patches under-represented in PAN, not managed for climate change – food security diminishes	IAS trees and plants not targeted or included in management actions, spread	Conflicting objectives (e.g. non-native Nitrogen-fixing trees) lead to establishment of IAS	Allowed harvesting exceeds natural limits, becoming over harvesting Improvements to enforcement do not occur
Enforcement lacking	Illegal / improper construction fails during heavy rains, leads to heavy sedimentation	Uncontrolled/ unpermitted burns continue leading to erosion and forest loss Illegal practices continue Siltation in bays continue	Invasive species brought into Palau and communities, take hold	Illegal harvesting of protected species Forests lost to burning, resulting in loss of species.
Lack of Coordination Body / Limited information sharing	Financial resources not streamlined across sector	Permits issued without full knowledge of consequences	Competing objectives not resolved, agencies implement actions without full picture of negative consequences	Protected species negatively impacted by development activities without full knowledge of impact
No overarching Tourism Plan	Tourist facilities and visitors further stress vulnerable habitats Local communities lose access or ability to farm food, decreasing food security	Permits given, leading to loss of important areas, sedimentation and erosion, nonpoint source pollution and loss of water quality	Tourism developments landscape with nonnative plants, bring in nonnative birds (such as sparrow)	Increasing tourist demand and willingness to play leads to reduction in valuable or protected species such as bats, wrasses, lobster, crabs

Root Cause	***Threats*** and Example Impacts			
	Climate change	***Habitat loss and degradation***	***Invasive alien species***	***Over- and illegal harvesting***
Few broad master or land use plans in place	Construction in areas with flooding or sea level rise; or landslides, road collapses Few climate change adaptation or mitigation planning or activities take place, uncoordinated Water availability reduced	Priority areas not protected, damaged by development, particularly taro patches and wetlands. Areas with salt water erosion planted, but unusable. Loss of mangroves and reefs leading to reduction in ecosystem services, siltation in bays.	High priority areas for IAS removal not identified, not cleared	Protected areas for vulnerable species not identified, too small Fragmentation of habitat for species that migrate across land (crocodiles) Forests lost and slow to recover.
Agriculture does not use Best Practices	Agriculture not sustainable for the long term, increased rainfall events exacerbate other negative effects	Runoff, erosion, and fertilizer use degrades water Soils degraded and topsoil layer lost, fertile soil reduced	New IAS introduced and/or spread	Food security diminishes with over harvesting of species

Climate Change

101. Impacts resulting from global climate change are of significant concern in SIDS like Palau, which are particularly susceptible to ecological disturbances. Climate change impacts both marine and terrestrial ecosystems and the organisms that depend on them. Palau is expected to see increases in temperature, SST, and rainfall. Impacts may include:
    (a) Altered weather conditions that stress trees and native species;
    (b) Increased erosion due to more frequent and stronger storms;
    (c) Loss of ecosystem services such as coastal protection and direct loss of biodiversity due to damage to coral reefs from storms and sea level rise;
    (d) Seawater inundation of coastal agro-forests and farms;
    (e) Loss of habitat and human habitation areas due to sea level rise.
102. Studies following the 1998 El Niño event showed that the associated increase in seawater temperatures contributed to coral bleaching that negatively impacted over 80% of Palau's nearshore reefs. Follow up studies indicated that reef recovery from bleaching was possible when local stressors are minimized, such as in a marine protected area. It is estimated that 100% of Palau's atoll, beach, and strand vegetation is at risk of being lost within the next 100 years due to sea level rise. Implementation

of adaptation measures now is a necessary and cost effective investment in protecting Palau's most sensitive areas of the environment.

103. Climate change also impacts terrestrial areas. Although Palau is generally considered outside of the typhoon belt, the country has been hit by two major typhoons in the last two years. In December 2012 Palau was hit by Typhoon Bopha, and in November 2013 by Typhoon Haiyan. In Palau these typhoons caused significant wind damage to homes and trees, storm surge flooding in coastal areas, heavy rains, and alterations in lagoon channels. Typhoon Haiyan caused particularly severe damage in Kayangel state. Nearly all structures in the state were destroyed, the vast majority of trees were toppled by high winds, taro patches were inundated with seawater, and the drinking water supply was contaminated with saltwater. As a result of damage to the state, all residents of the state were evacuated. For the state to fully recover, Climate Change Adaptation Planning must occur or the residents risk repeat incidents and outcomes. **Table 3** provides examples of environmental issues associated with the effects of climate change, including anticipated impacts on biodiversity in Palau.

Table 3: Climate Change Effects, Implications, and Possible Impact on Biodiversity

Effect	Implications	Possible Impacts on Biodiversity
Increased seawater / Sea Surface temperature	Coral bleaching Increased severity and frequency of storms	Loss of coral species and organisms dependent on corals Habitat loss (marine) Fish nursery decline, decline in fish populations
Increased average air and ocean temperatures	Increased energy consumption More severe weather events Changes in water quality	Destruction and alteration of habitat by storms Decrease in coral species and health Degradation of marine environments from pollution
Sea level rise	Flooding Coastal erosion Salt intrusion in taro fields Damage to low-lying hamlets and infrastructure Contamination of freshwater lens	Loss of terrestrial habitat and species Decline in riverine aquatic organisms and water quality Loss of beach and strand species
Climate extremes	Droughts, storms and floods	Increased susceptibility to invasive species
Changes in precipitation	Decreased reliability of water supply	Wild fires and habitat (forest) loss

Habitat Loss and Degradation

104. The SLM component of this project will target key stressors contributing to habitat loss and degradation: erosion and sedimentation, deforestation, poor land use planning, uncontrolled fires, and non-sustainable development practices – which arise from such root causes as lack of master, land use, or tourism plans. Erosion and sedimentation on a ridge-to-reef scale contributes significantly to non-point source pollution. Erosion and sedimentation impact both marine and terrestrial areas. Soil loss is particularly severe in areas with loss of forest or other vegetation cover; this creates a negative feedback loop in that loss of fertile soil loss makes it unlikely that

vegetation will naturally recover. Soil carried to the ocean leads to pollution and siltation of marine habitats. Erosion and sedimentation in marine environments is of particular concern because of the short time-scale and scope at which it is occurring. Once an important fishing area, Airai Bay drains the Ngerikiil watershed, one of the fastest growing areas of Palau. Many new homes have been built with poor development planning and often using non-sustainable practices. In 2003, the bay was silting at a rate of 150 km^2/year. It is estimated that at that rate the bay would be entirely filled and above sea level in 15 years.

105. Loss of forest and slow recovery times of native forest is also of concern. A 2010 Statewide Assessment of Forest Resources (SWARS) estimated that the rate of forest recovery from grassland to forest occurred at a rate of only 0.07%/year. Over 92% of forest expansion occurred within 100m of established forest, indicating the need for close-by forest to facilitate regeneration. Forests next to savanna areas that are subjected to frequent fires are whittled away over time by repeated exposure to fire along the edges. Vegetation in burn areas is slow to recover. Burn areas are left at a greater risk of erosion.
106. The current rate of habitat loss is unknown. Some evidence suggests fragmentation of forests impacts migration of animals, such as threatened saltwater crocodiles. Forests threatened by development include upland native forest and mangrove forest. There are few land use plans or building regulations in place, and EQPB lacks the capacity to inspect all construction for environmental impacts.
107. A lack of land use planning has also contributed to habitat decline. While in the most recent mini-census the population declined, the trend for population growth has been at 2% for the past two decades nationwide. In some states, the rate of population growth has been substantially higher: 75% in Airai, 60% in Ngatpang, and 40% in Koror. The new National Road circling Babeldaob was designed to encourage movement of the population from Koror to Babeldaob and reduce stressors on Koror State. Babeldaob areas with high population growth have had noticeable increases in construction of homes and roads with associated clearing of forest or conversion of land to farmland. Nationwide, between 1986 and 2005, the population increased by 44%, but the number of houses increased by 88%, indicating a boom in construction in Babeldaob.
108. Due to limited land availability, much development is on relatively steep terrain. Development on slopes increases the risk of erosion, particularly if forest or other landcover is removed. In Airai, 72% of the Ngerikiil watershed has slopes greater than 12% and 44% of the watershed has slopes greater than 30%. It is typical geologically when compared to other watersheds in Palau.
109. Additional forest loss has come from commercial agricultural development. Exact hectares of farmland conversion are unknown, however as an indicator between 1990 and 2005 the number of individuals engaged in farming, fishing, or forestry as a primary employment increased by 77%.
110. Uncontrolled fires on Babeldaob are of particular concern: they tend to spread quickly and there is limited national capacity to fight fires. Fire management is also hampered by cross-sector management issues. Fire prevention is the responsibility of communities, which lack resources to operate adequate fire prevention and response programs. Further, protected area management is the purview of natural resource

agencies, and fire fighting is under the Bureau of Public Safety, with little coordination between these sectors. The amount of land impacted by fire is unknown, however, during surveys in 2009 to 2011, all 6 terrestrial conservation areas in Ngardmau, Ngeremlengui, and Aimeliik States had signs of recent burning within or at the edges of their borders, leading to loss of habitat and downstream pollution.

Invasive Alien Species

111. Invasive animals and plants are currently degrading forests and pose a serious threat to biodiversity. Given that nearly all of Palau's protected areas include endemic or endangered animals with small populations, invasive species are of particular concern to protected area management on land. Numerous alien invasive trees, particularly in the *Fabaceae* family, have become established on Babeldaob and out-compete native vegetation. They are present in the Ngeremeskang Nature Reserve, a priority site for this project. Only one species of *Fabaceae* is the target of active management, due to severely limited capacity of the national Division of Forestry. It takes a team at least one day to girdle a single tree. Invasive vines such as *Merremia peltata* are present on every island and current efforts to manage them rely heavily on community volunteers. In some places roadways are entirely lined with invasive vines. Invasive grasses such as *Imperata cylindrica* and *Chromolaena odorat* exacerbate other problems such as wildfires.
112. Invasive long-tailed macaques were introduced to the island of Angaur in the early 1900s. They have since decimated local biodiversity (bird diversity is lower in Angaur than in any other similarly-forested area), impacted crop production, limited the economic role of women, and disrupted cultural relationships within Angaur society. Due to daily transportation of goods and people from Angaur to the rest of Palau, the spread of macaques poses a severe and immediate threat to the rest of the nation, even though there are national laws prohibiting their transportation. Macaques are also present on Peleliu, Koror and the RISL, and Babeldaob, although they are not known to be in the wild. Rodents (mice and rats), feral cats, and feral pigs are also problematic invasive alien species present on every island.

Over Harvesting and Illegal Harvesting

113. Although there is no large-scale commercial timber harvesting, there is widespread local harvesting of upland forest and mangrove trees. As a result, many native large tree species are rare. Mangrove forests are often clear cut or selectively harvested for charcoal or subsistence uses. The 2010 SWARS estimated the rate of loss for mangroves at 0.04% per year. Mangroves are the second largest forest type in Palau, with an estimated extent of 48 km^2 in 2010. The rate of loss is thought to be accelerating due to increased access to all parts of Babeldaob. In Melekeok, for instance, the number of homes along the coast has nearly doubled between 2000 and 2010, and the roads through Melekeok village are entirely paved.
114. Endangered species are protected by national and state laws, but illegal harvesting continues. This affects both marine and terrestrial species. At least 11 dugongs, a fully protected species with a $10,000 fine, were known to have been killed in 2010. Aerial surveys in the years prior estimated the population to have been around 200 dugongs. On land, the population of the Micronesian Imperial Pigeon has steadily decreased,

even though it is fully protected by law. A study in 2005 found that there were approximately 8,200 pigeons, a 33% reduction from a 1991 estimate of 13,700. A 2010 study found the pigeons in only 13 of the 20 sites where they had been found in 2005.

115. Evidence of biodiversity loss is also found in marine habitats. In fisheries, the total catch of fish and other marine products has decreased steadily since 2007, with the 2011 catch amounting to only 56% of the 2007 catch. This trend suggests a decline in total fish stocks in Palauan waters.
116. Modernization and the rapid shift to a dollar-based economy has also driven much of the declines in species, particularly as the importance placed on traditional law and decree has declined.

2.5 Stakeholder Analysis

117. Palau has a robust and active environmental sector. However, there are both gaps and overlaps in the mandates, activities, and capacities of Palau's wide environmental and conservation organizations and professionals. Stakeholders for the project are at every level: international/regional, national, state, traditional, and local, including government, semi-government, business, and nonprofit/NGO. Stakeholder participation crosses sectors, with participation from every Government Ministry and the Office of the President. The current President, Tommy E. Remengesau, established OERC and the National Environmental Protection Council and is committed to environmental sustainability. This project has been developed with support from the Office of the President The environment sector is one of the most diverse and fully representative sectors in Palau, with equal representation from men and women at all levels, participation of Palauans and Foreigners, and participation from all levels of governance. Project designs within the environment sector regularly include processes for targeting a full representation of society, having identified key community sectors to include Men's and Women's Groups, Youth Groups (men and women), and Foreigners. These groups are regularly consulted as part of environmental projects, which are almost always participatory in nature.
118. Stakeholder involvement in conservation is not fully clear or coordinated. This project explicitly addresses this barrier in Component 3. **Table 4** provides an overview of key stakeholders for this project. **Appendix 13** includes a full list of stakeholders with discernable impact on the implementation or success of PAN, SLM, or cross-sector issues. One additional confounding factor is that in a small population such as Palau, the same individual may hold multiple titles and have different job duties, such as having a paid government position and an unpaid Board position at a nonprofit organization. Thus deliverables of this project include clarifying the roles and contributions of stakeholders.

Table 4: GEF 5 Stakeholders

Stakeholder	Stakeholder's Interest in Project	Justification for Inclusion of Stakeholder	Expected Role of Stakeholder
Belau National Museum (BNM)	Biodiversity research and conservation	BNM is a key agency in researching and promoting conservation of terrestrial ecosystems and biodiversity in Palau	BNM will conduct research and provide support to establish monitoring protocols
Belau Watershed Alliance (BWA)	Sustainable watershed management	BWA supports SLM through cross-boundary, ecosystem-based watershed management	BWA will support other stakeholders in developing cross-boundary SLM practices
Bureau of Agriculture (Bureau of Ag/BOA)	Biodiversity management and natural resource conservation	Bureau of Ag is a key agency in integrated land, watershed and forestry management	Bureau of Ag will develop monitoring protocols, land use management, and forestry management policies, as well as develop natural resource management training materials
Bureau of Land and Survey (BLS)	Sustainable land management	BLS identifies land boundaries, including those of protected areas	BLS will support land use management through mapping and boundary identification
Bureau of Tourism (BOT)	Sustainable tourism management	BOT oversees tourism in Palau	BOT will improve tourism sustainability through development of sustainable tourism practices and policies
Community-based Organizations	Sustainable economic development	Community-based organizations provide community level support and guidance for conservation and development initiatives	Community-based organizations will support and guide localized implementation of Project activities
Environmental Quality Protection Board (EQPB)	Sustainable land management	EQPB is a key organization in implementing current land management practices	EQPB will provide sustainable land management training and support implementation of SLM and SFM policies
Ministry of Education (MOE)	Capacity development	MOE is responsible for national education standards and curricula	MOE will integrate Palau-focused biodiversity, ecosystem and other relevant science into school curricula in support of long-term SLM, SFM, IWRM and other Project related topics
Ministry of Natural Resources, Environment and Tourism (MNRET)	Natural resource management	MNRET oversees multiple natural resource management bureaus and offices, including BOA and BOT	MNRET will support overall implementation and organization of the Project
Ngardok Nature Reserve	Biodiversity and ecosystem conservation	Ngardok Nature Reserve was one of the first terrestrial protected areas in Palau	Ngardok will pilot several Project activities to improve implementation and effectiveness of programs across all PAN sites
Office of Environmental Response and Coordination (OERC)	Project management	OERC is the lead agency for overall management of the Project	OERC will have overall responsibility for implementation of the Project and will lead cross-sector coordination

Stakeholder	Stakeholder's Interest in Project	Justification for Inclusion of Stakeholder	Expected Role of Stakeholder
Office of the Palau Automated Land and Resources Information Systems (PALARIS)	Sustainable land management	PALARIS provides valuable mapping services that support land use planning and management	PALARIS will create maps to support natural resource management monitoring and decision making
Office of the President	National Executive Management, National healthy and sustainability	The Office of the President oversees all government Ministries and semi-autonomous partners. Support from the Office of the President is critical.	Support the project and direct Ministries and semi-autonomous agencies to participate as designed.
Palau Chamber of Commerce	Sustainable economic development	The Chamber of Commerce is an important partner in setting development priorities and establishing community support for management actions	The Chamber of Commerce will support sustainable development actions and provide guidance for economic development decision making
Palau Community College (PCC)	Capacity development	PCC is the lead post-secondary education institution in Palau	PCC will increase on-island capacity to train natural resource managers
Palau Conservation Society (PCS)	Biodiversity and ecosystem conservation	PCS is a natural resource conservation organization with expertise in communication, project management, and policy development	PCS will provide ongoing support to stakeholder agencies for communication, research, policy development, and guidance on Project implementation
Palau International Coral Reef Center (PICRC)	Biodiversity research and conservation	PICRC is a key agency in researching and promoting conservation of marine ecosystems and biodiversity in Palau	PICRC will conduct research and other support to establish monitoring protocols
Palau Public Lands Authority (PPLA)	Sustainable land management	PPLA is a key agency involved in managing Palau's public lands	PPLA will provide support in developing and implementing SLM, SFM, and IWRM policies
Palau Visitors Authority (PVA)	Sustainable tourism management	PVA plays an important role in developing tourism opportunities throughout Palau	PVA will support identification and development of sustainable tourism opportunities in support of Project activities
Protected Areas Network Fund (PAN Fund)	Biodiversity and ecosystem conservation, sustainable finance	The PAN Fund provides financial management for the PAN	The PAN Fund will identify and implement opportunities to improve long-term financial sustainability of the PAN
Protected Areas Network Office (PAN Office)	Biodiversity and ecosystem conservation	The PAN Office oversees management of the PAN throughout the nation	The PAN Office will support activities designed to improve management, monitoring, evaluation, and reporting across all PAN sites
State Governments	Sustainable economic development	States are responsible for natural resource management within state boundaries	States will function in a variety of capacities to develop policies and support implementation of Project activities

Stakeholder	Stakeholder's Interest in Project	Justification for Inclusion of Stakeholder	Expected Role of Stakeholder
The Nature Conservancy (TNC)	Biodiversity and ecosystem conservation	TNC is an international environmental management and conservation organization with an office in Palau	TNC will provide support and technical guidance for development and implementation of Project activities
Tri-Org	Sustainable economic development	The Tri-Org supports economic development throughout Palau	The Tri-Org will support identification and implementation of sustainable economic development opportunities

2.6 Baseline Analysis, Gaps, and Barriers

Introduction to Long-term Solutions

119. The long-term vision of the Project is to safeguard the environment to protect biodiversity and provide important ecological services. Given the cross-cutting nature of the threats, a coordinated approach that combines the intense protected area scale of the PAN with the broader reach of the SLM is necessary. Long-term solutions include paying particular attention to cross-cutting threats such as Climate Change, ridge-to-reef erosion and habitat loss, invasive alien species, and forest management, which impacts every ecosystem and species from marine to terrestrial. Thus, the long-term solution is to take a coordinated, ecosystem-based approach to protection and management.
120. One long-term solution will be to strengthen protected areas and the PAN to ensure that sites across Palau are being effectively conserved and are contributing to local, national, and global biodiversity benefits. A second long-term solution will be to implement SLM so that negative impacts from land use are minimized across terrestrial and marine ecosystems. A third component will be to create a single umbrella approach to conservation and resource management in Palau that encompasses the fully developed and linked PAN and SLM systems and that addresses cross-cutting issues.
121. Long-term solutions include establishing scientifically-based baselines for species and sites and mainstreaming biodiversity information into long-term policy and planning documents. These efforts will include some on-the-ground activities, but rather than duplicate effort, will rely heavily on decades worth of investment in on-the-ground conservation activities as it takes the final steps to identify, link, and coordinate effective ways forward. Increasing support and capacity at the local level to adhere to policies and implement, evaluate, and adapt those plans is also a key long-term solution. A strong foundation of accepted facts and community support will lead to secondary solutions such as increased enforcement and compliance with environmental regulations and laws and increased adaptability to change. A key area of the SLM Component (2) is to find ways to use SLM to improve economic opportunities. Contributing approximately 50% of Palau's GDP, tourism development must be a focus of any long-term strategy.

Existing Barriers to Achieving the Solutions

122. Key barriers fall into these categories: 1) PAN tools and strategies are not fully

developed or formalized; 2) the SLM Policy is endorsed but not fully developed for implementation; 3) Cross-coordination of PAN and SLM has gaps and overlaps and needs streamlining; and 4) Cross-cutting areas such as Sustainable Forest Management, Climate Change Vulnerability and Adaptation Assessment, Ridge-to-Reef planning and evaluation; and Invasive Alien Species and Biosecurity apply to both PAN and SLM, but need a consistent and coordinated response for which there are current gaps in capacity. Further, evaluation protocols for PAN, SLM, and cross-sector linkages are not developed, minimizing adaptive management.

123. The PAN has numerous gaps in Standard Operating Procedures (SOPs) as outlined in the PAN regulations. In addition, tools and information to prioritize and streamline planning and evaluation are not fully developed; these are root causes of many of the threats faced by PAN sites. Fully developed monitoring tools, best practices for identifying and protecting high biodiversity areas, baseline species status and needs assessments, and overarching national level effectiveness evaluation tools are all needed. There is no PAN strategy to identify and target high value areas and no way to judge them according to standard criteria. Although there are draft criteria for aligning management approaches in PAN sites, these have not been adopted as standard[3]. Awareness and support levels are low within some segments of the population, and capacity to manage PAN sites and protected area financing is also limited. Thus, there is no way to determine the best value for each dollar spent from the Green Fee, PAN Fund (which largely consists of Green Fees, plus additional grants), and the MC Endowment Fund.
124. There are significant barriers to full implementation of the SLM, including capacity at the state level for land use planning and only two land use plans (Airai and Melekeok), both of which are missing key sections (e.g. full zoning). Only one state has zones that can be used to inform other state plans (Koror). The broad extent of the SLM means that the lack of a Coordination Body is a barrier to implementation of the Policy. Similarly, full implementation of the SLM Policy also requires additional development of Best Practices. No state has established comprehensive land use and development policies and best practices along with the necessary legislative frameworks for its implementation.
125. With multiple government agencies responsible for overseeing various aspects of natural resource management, and numerous semi-government and non-government entities with interests in natural resource management issues, coordinated implementation of policies is difficult. Lack of resources, including human, information, technical, and financial, are major barriers to implementing PAN and SLM, as well as many other conservation policies. Developing measures to improve monitoring, evaluation, and reporting, as well as general knowledge sharing

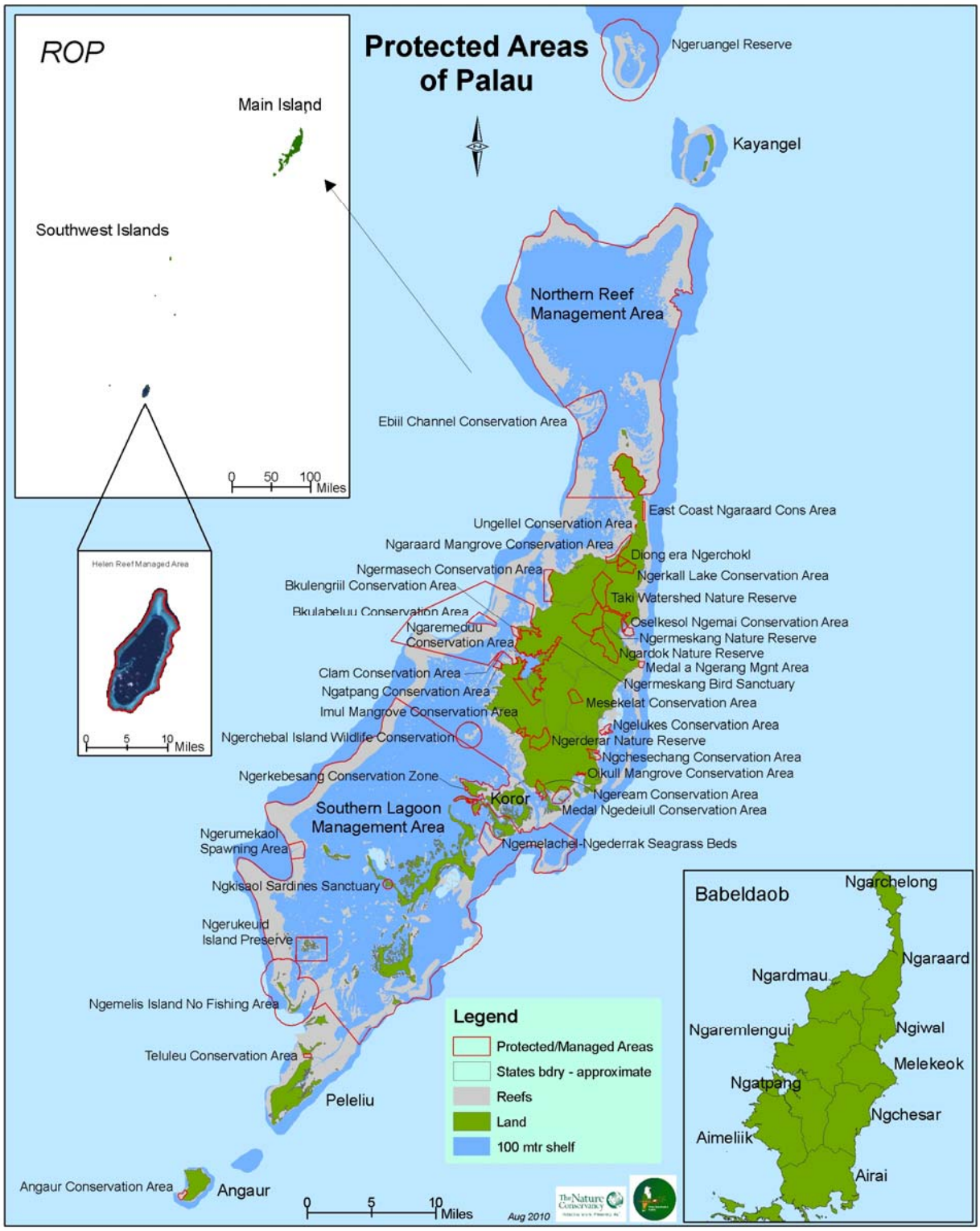
[3] This is beyond the criteria and standards reported as "adopted" in the final report on the GEF 4 Project "Micronesia Challenge: Sustainable Finance Systems for Protected Area Management in 'Micronesia Challenge' States." Under the PAN regulations, there are minimal requirements for management plans, and these minimal requirements have been codified into law with updates to the PAN legislation. These requirements include a broad list of topics the management plan must address (e.g. a management plan must have an "actions"). The proposed criteria discussed as part of this project build on the minimal requirements so as to be functional and comparable (e.g. actions must be categorized by education, field, research, administrative, etc.). These fully developed criteria and standards have not been adopted formally in Palau.

mechanisms between agencies and to the public will improve coordination across sectors and initiatives. Cross-coordination is key to addressing cross-cutting issues such as Climate Change and Biosecurity. Coordination and successful implementation of the initiatives hinges on securing on-going financing. Although Palau made significant strides towards meeting its financial goals under the Micronesia Challenge GEF 4 Project, it has not met all its needs locally or regionally. As a result, development of sustainable financing strategies is included in the Project activities.

Baseline and Gaps - Protected Areas and PAN

126. Building on traditional management practices, Palau has had great success in designating protected areas. In 2013 the nation had set aside 45 discrete government-backed or community-based protected areas (**Map 2**). This included 1331 km^2 of nearshore marine habitat (to 200 m depth; approximately 40% of total marine) and mangrove (approximately 46% of total mangrove) and 90 km^2 of terrestrial habitat (approximately 22% of total terrestrial). Each of Palau's 16 states has some sort of legislated or traditionally decreed protected area. (Only those protected areas that are PAN sites are eligible to be counted towards Palau's Micronesia Challenge 20% terrestrial and 30% nearshore marine commitments.) However, there are many critical areas in Palau that are not protected or are only fully protected. For instance, areas that are resilient to climate change – particularly bleaching – have been relatively well studied and identified. Some of these resilient areas are not protected and form the theoretical basis for actions within this project (such as improved design of the PAN, based on findings in publications such as McLeod et al 2013 and van Woesik et al 2012).
127. Where applicable, Palau's local and national governments have sought international recognition and support for protected areas, thus Koror's Rock Islands Southern Lagoon (RISL) is a World Heritage Site; Melekeok's Ngardok Nature Reserve is a Wetland of International Significance under the Ramsar Convention; Ngeremeduu Bay (in Aimeliik, Ngatpang, and Ngeremlengui) is a UNESCO Biosphere Reserve; and Kayangel's Ngeriungs and Sonsorol's Fana Islands are Important Bird Areas (IBAs) as designated under the Birdlife International system. Palau's two most recent Presidents have declared Palau's waters to be sanctuary for sharks, marine mammals, and fisheries. To the extent possible, stakeholders access limited grant funds for small projects in these internationally-recognized sites.

Map 2. Protected Areas in Palau.



128. In 2014, 13 of Palau's 16 states had successfully nominated 21 protected areas to the PAN. PAN sites cover 271 km^2 total, consisting of 230 km^2 marine protected area and 42 km^2 terrestrial protected area. This is below the goal of the Micronesia Challenge

and many eligible sites have not yet been nominated or accepted as PAN sites. (Only those protected areas that are PAN sites are eligible to be counted towards Palau's Micronesia Challenge 20% terrestrial and 30% nearshore marine commitments.) The initial inclusion of sites in the PAN was guided by technical capacity and political will and not by an overarching national biodiversity plan. Thus the existing PAN sites create a fragmented collection of sites without connectivity and without full systematic or necessarily representative coverage of Palau's endangered, threatened, and endemic species and their habitats. Many areas important to resource use are also not included in the PAN (such as spawning and aggregation sites, or watersheds draining above local drinking water sources). **Table 5** provides information about PAN sites, as listed by the Palau PAN Fund.

Table 5. Palau PAN Sites

PAN Site Name	Ecosystems or species included	State	Year PA established	Approximate Size (km^2)	Estimated Marine Coverage (km^2)	Estimated Terrestrial Coverage (km^2)	Year PAN Member	Primary Funding source(s)
Ngaruangel Reserve	Atoll island, reefs, lagoon	Kayangel	1996	34.96	30.00	4.96	2013	GF (Green Fee)
Ebiil Conservation Area	Grouper spawning & aggregation sites (SPAG)	Ngarchelong	1999	19.11	19.11	0.00	2008	GF
Ngaraard Mangroves Conservation Area	Mangrove	Ngaraard	1994	2.88	2.88	0.00	2011	GF
Ungellel Conservation Area	Mangrove	Ngaraard	2007	0.32	0.32	0.00	2011	GF
Ngerkall Lake and Metmellasech Watershed	Forest, pond, watershed	Ngaraard	2008	2.23	0.00	2.23	2011	GF
Diong Era Ngerchokl Conservation Area	Forest, stream, watershed	Ngaraard	2008	0.91	0.00	0.91	2011	GF
Ongiil Conservation Area	Mangrove and reef	Ngaraard	2010	2.00	2.00	0.00	2011	GF
Ngermasech Conservation Area	Mangrove, reef flat, seagrass bed	Ngardmau	1998	2.93	2.93	0.00	2010	GF
Ileakelbeluu	Patch reef	Ngardmau	2005	0.62	0.62	0.00	2010	GF
Ngerchelchuus	Forest, Mountain vista	Ngardmau	2005	0.30	0.00	0.30	2010	GF
Ngardmau Waterfall (Taki)	Waterfall, forest	Ngardmau	2005	6.12	0.00	6.12	2010	GF
Ngermeskang Nature Reserve	Upper Watershed, river, forest	Ngeremlengui	2008	8.86	0.00	8.86	2012	GF
Ngerderrar Watershed	Forest	Aimeliik	2008	3.80	0.00	3.80	2011	GF

PAN Site Name	Ecosystems or species included	State	Year PA established	Approximate Size (km²)	Estimated Marine Coverage (km²)	Estimated Terrestrial Coverage (km²)	Year PAN Member	Primary Funding source(s)
Conservation Area								
Olsolkesol Waterfall/Ngerbekuu River Nature Reserve	River, forest	Ngiwal	2009	1.05	0.00	1.05	2008	GF
Ngardok Nature Reserve	Lake, wetlands, watershed, forest	Melekeok	1999	5.00	0.00	5.00	2008	Grants, GF
Mesekelat Conservation Area	Watershed and forest	Ngchesar	2002	0.50	0.00	0.50	2008	GF
Medal Ngediuul Conservation Area	Seagrass bed	Airai	2006	3.18	3.18	0.00	2011	GF
Ngerukewid Islands Wildlife Preserve	Islands, reefs, lagoon	Koror	1956	11.02	3.31	7.71	2012	State budget, Tourism, Permits, Fines
Ngerumekaol Spawning Area	Grouper SPAGs	Koror	1976	2.08	2.08	0.00	2012	State budget, Fines
Teluleu Conservation Area	Seagrass bed, reef flat	Peleliu	2001	0.83	0.83	0.00	2013	GF
Helen Reef Reserve	Atoll island, reefs, lagoon	Hatohobei	2001	163.0	162.0	1.00	2009	Grants, GF
		TOTALS		**271.7**	**229.3**	**42.4**		**4 diversified; 17 GF-reliant**

129. In 2013 spending on protected areas was approximately US$2.1 million annually, combined from all sources. To meet national and regional Micronesia Challenge goals of *Effective Conservation* of 30% of nearshore marine areas and 20% of terrestrial areas, an estimated annual $1.1 million additional funding would be needed per year, as well as $1 million in one-off start-up costs. The Green Fee and MC Endowment fund should cover almost all of these costs, in time according to existing Sustainable Finance Plans. Baseline financial sustainability scores according to the GEF METT are relatively low. Combining the three components measured in the GEF "Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5" Excel Table, the total baseline score for Palau's protected areas financial sustainability is only 30% out of an optimal 100%.
130. Effective Conservation remains challenging. Although formal Management Effectiveness Tracking Tools (METT) (including additional desired parameters beyond those in the GEF "Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5" Excel Table) are lacking, an assessment of PAN sites existing prior to 2012 shows many areas where effective conservation is not being practiced. **Table 6** illustrates areas where improvements in management are needed as it pertains to conservation effectiveness – indicators are socioeconomic as well as biophysical and take into consideration climate change and resilience. There has been progress in

measuring management effectiveness, through the development of informal and formal scorecards. Representatives from Palau have been trained in the MPA Management Effectiveness Tracking Tool as part of the Micronesia Challenge GEF 4 Project. There is existing capacity in Palau to manage data from PAN sites and there are systems in place to collect data. These systems, in particular the MC Database, were also improved under the GEF 4 Project. This project will build a comprehensive METT that incorporates the types of information in Table 6. Baseline scores from the GEF "Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5" Excel Table show room for improvement: undesired threats range from 41 to 83 (out of a maximum of 159; desired = 0); desired assessment form scores range from 46 to 77 out of a maximum desired score of 112.

Table 6. Illustrative table of management gaps hindering Effective Conservation

PAN Site	Site has received funding through approved distribution mechanism	Amount of funding acquired relative to funding needed to meet core objectives	Management plan in place	Site has governance mechanism with authority	Site has active enforcement program	Enforcement program is operating fully	(Non-enforcement) Actions underway to minimize threats	Skilled people actively working at the site relative to number needed	Site has developed a capacity development strategy	Ongoing capacity development	Number of partnerships in place relative to the number needed	Ecosystem based CC adaptation strategies in management plan
Ebiil, Ngarchelong	Yes	Some, not enough	Yes	Yes	Yes	No	Yes	Some, not enough	Yes	Yes	Adequate	Yes
Olsolkesol, Ngiwal	Yes	Some, not enough	Yes	Yes	In progress	No	No	Some, not enough	No	Yes	Some, not enough	No
Ongedechuul SCA, Ngardmau	Yes	Some, not enough	Yes	In progress	Yes	No	Yes	Some, not enough	Yes	Yes	Some, not enough	Yes
Ngardok Nature Reserve, Melekeok	Yes	Some, not enough	Yes	In progress	No	No	No	Some, not enough	No	Yes	Some, not enough	No
Mesekelat and Ngelukes, Ngchesar	Yes	Some, not enough	Yes	In progress	In progress	No	No	Some, not enough	In progress	Yes	Some, not enough	No
Helen Reef	Yes	Some, not enough	Yes	Yes	Yes	In progress	Yes	Some, not enough	Yes	Yes	Some, not enough	In progress
Ngerderrar, Aimeliik	Yes	Some, not enough	Yes	In progress	In progress	No	No	Some, not enough	Yes	Yes	Some, not enough	Yes
Kerradel Network, Ngaraard	Yes	Some, not enough	Yes	In progress	No	No	No	Some, not enough	Yes	Yes	Some, not enough	Yes

131. **Business-As-Usual Scenario** – More detailed scenarios for each outcome are included in **Appendix 3**. Without dedicated investment in the PAN, sites will continue to be added to the PAN opportunistically based on funding, temporary technical availability, and changing political will rather than systematically and representatively. Palau's conservation organizations have attempted to develop

national PAN Strategic Plans in the past, but without organization, authority, and mandates, these efforts have been abandoned and any plan drafted through volunteer efforts will lack authority. The mandate of the PAN legislation, compounded by conflicts in regulations, prioritizes funding of state PAN sites and their management, thus funding for national coordination activities is and will continue to be low. A PAN Office under the MNRET exists and will receive minimal annual funding to support one staff person, which is 2-3 positions below what is necessary to ensure complete coordination.

132. Even with funding of state management actions as a priority for the National Government and PAN Fund, no states will receive their full optimal budget. There will be improvements, but the full suite of management actions as identified by the PAN regulations will not be implemented in any state with the *status quo* of opportunistic, interest-driven activities continuing. Enforcement and community buy-in suffer particularly from inadequate investment.
133. There will be additions to the PAN of at least one state, but several sites critical to Palau's biodiversity and economic stability will remain outside of the PAN or without adequate management, such as many sites within the RISL. Watersheds above local water sources will not be protected in each state, or the management regime will not be adequate to control erosion. At the current rate at which sites are added to the PAN, Palau may miss its 2020 goal to effectively conserve 30% of nearshore marine areas and 20% of terrestrial areas, although it will likely be close or surpass it in terms of absolute coverage. However, given the limits in capacity, few sites will likely meet the requirements (however determined) to be considered Effectively Conserved.
134. Research organizations such as the Palau International Coral Reef Center will continue to provide best information on the condition of protected areas, but the uptake of such information into policy, regulations, or management practice will be slow. METT development will continue at its current rate, funded almost entirely by grants at the agency level. Palau has made significant progress on marine indicators and is working towards terrestrial and socioeconomic indicators. However, with piecemeal funding this process has taken over 7 years and is not complete.
135. Even in many conservation areas, key species such as Micronesian Pigeons and food fishes will continue to decline.
136. **Proposed Alternative Scenario** – This project will fill many existing gaps, with particular emphasis on filling in gaps in the PAN framework, such as by identifying a coordinated approach to PAN site selection to achieve national biodiversity benefits (such as connectivity, representation, and resiliency). In addition, this project will ensure that appropriate linkages are made with land uses outside of protected areas by aligning plans with the SLM Policy and with cross-sector issues such as climate change, IAS, SFM, and ridge-to-reef erosion control. Thus, inclusion of the PAN component will result in benefits within protected areas, and inclusion of the SLM and cross-coordination component will result in additional benefits to natural areas outside of and in addition to those realized in protected areas.
137. This project will lead to the inclusion of at least 4 new PAN sites, with a minimum of 950 km^2 marine area and 6.3 km^2 terrestrial area, ensuring that all 16 of Palau's states are included in the PAN and that Palau is closer to meeting the MC goals by 2020.

(100% participation in the PAN is desirable both for national biodiversity benefits but also to ensure sustainable livelihoods for all of Palau's population).

138. Sites will be targeted based on best available science, and new research will increase information available. PAN sites will be more representative of Palau's ecosystems.
139. Comprehensive METT (with many additional parameters beyond those required in the "Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5" Excel Table) will be finished and standardized, based on a broad body of existing information, research, and systems developed over the past several decades. The MPA Management Effectiveness Tool that was integral to the GEF 4 Project "Micronesia Challenge: Sustainable Finance Systems for Protected Area Management in 'Micronesia Challenge' States" will be a key element of METT developed for marine areas. Standardized, comprehensive METT will guide more effective conservation of sites and improved ecosystem condition scores. Full implementation of management plans in 4 sites, guided by the full suite of METT, should slow or stop the decline of species populations. By the end of the project, the GEF METT Scores will show a decrease in threat scores by 25%, an increase in assessment form scores by 30%, and an improvement in the total financial sustainability score by 66%.

Baseline and Gaps – Sustainable Land Management (SLM)

140. Implementation of the SLM Policy is still in its infancy. The three priority elements have only been minimally implemented, and there is no Coordinating Body. Development guidelines have been implemented in a piecemeal and uncoordinated fashion, and sustainable financing is minimal.
141. However, Palau has made progress in improving planning capacity and overall management of its natural resources. Airai and Melekeok states have been leaders in developing management plans including Master and Land Use Plans, and in 2013, Airai completed the first state-level watershed management plan (for the Ngerikiil Watershed) in Palau. There are 2 local land use planners now; in 2011 there were none. The development of additional plans to manage natural resources outside of protected areas demonstrates recognition of the importance of ecosystem-based environmental management in SIDS. While protected areas support healthier ecosystems in adjacent non-protected areas, poor management of areas surrounding protected areas can counteract the value of designating a protected area.
142. Of Palau's 16 states, 3 states have some sort of master plan, land use plan, or zoning. Koror has led Palau in developing zones for construction, while Airai State was the first to develop a State Master and Land Use Plan. Melekeok has also developed a State Land Use Plan. The baseline score from the GEF "Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5" Excel Table for three components of Policy and Regulatory Frameworks is only 9 out of a maximum desired score of 24.
143. 2012 estimates indicate that across all stakeholders influencing land use and management in Palau, approximately US$13 million is spent per annum. $3 million is from grants and $10 million from government appropriations, funding a wide range of government services across nearly all Ministries. However, if the SLM Policy were to be fully funded, funding for an additional $5.4 million in startup costs and $3.6 million in annual costs would be needed. Even just the top two priorities (national

coordination and development guidelines) would require $2.1 in startup costs and $320,000 annually to be fully implemented.

144. **Business-As-Usual Scenario** – Without dedicated investment, the development of SLM plans will continue, but very slowly. Relying on grants and existing government appropriations, it takes between 4-5 years to develop a Master and Land Use Plan for one state. At this rate it will take Palau over 60 years to develop SLM plans and policies, at which time threats such as climate change will have compounded – perhaps beyond recovery.
145. Government appropriations and the Green Fee are dedicated to protected areas and PAN sites, thus there is little funding for SLM. Without investment the National Coordination Body may not be established. Cross-links between SLM and PAN will be established using the existing informal system and thus not mandated or streamlined.
146. Given the scope of SLM and the pace of development, every delay in implementing SLM leads to increases in erosion and sedimentation and degraded habitats. Tourism development will continue in the piecemeal fashion as it has so far, based more on land ownership and political will than on land suitability. Even for well-situated tourist developments, the impacts of increasing visitors will increase threats to biodiversity and natural resources.
147. **Proposed Alternative Scenario** – This project will implement the top two priority areas for the SLM, particularly a National Coordinating Body.
148. Development of 4 SLM plans by the project will reduce the 60-year timeframe and build momentum and support for additional SLM planning in other states.
149. The Sustainable Tourism Management Plan will provide necessary guidelines and limits for tourism development, thus reducing negative environmental impacts such as erosion, runoff, and habitat loss.
150. Cross-sector links will be established in a formal setting, with specific inclusion of PAN and SLM in the same documents and a coordinated scientific review to ensure that proposed actions contribute to national biodiversity protection and do not conflict. For instance, Palau's Bureau of Agriculture's Strategic Plan includes plans to expand pig husbandry in Palau; however, feral pigs are a problem in protected areas and targeted for control. PAN-SLM coordination will be necessary to ensure that the activities of each are aligned and complementary.

Baseline and Gaps - Integrated Coordination

151. OERC has the mandate for coordination but not the staff or budget to do so, and meeting immediate obligations to International Conventions is a priority over national coordination.
152. Exactly how to best coordinate Palau's wide stakeholder groups is unclear; this is exacerbated by proposals to create a Bureau of Environment to replace OERC, as well as by inconsistencies in EQPB's mandate. Information is currently shared through informal networks and capacity building varies based on available funding and technical expertise.
153. IAS management is not funded in a comprehensive way, although a National Invasive Species Committee does exist. There is no mechanism to streamline IAS management and biosecurity. Many planning and on-the-ground efforts have been conducted to identify, manage, and even eradicate invasive plants and animals in various locations

throughout Palau. However, these efforts have been driven by outside sources and often championed by single individuals or groups. There has been no holistic approach to invasive species management – including prioritization of species – so far. One effort that has received wide-spread support from across agencies and communities has been biosecurity, with various biosecurity laws, draft laws, and plans in place at the regional and local levels.

154. National-level evaluation indicators and measures do not exist apart from informal assessments on an opportunistic basis.
155. **Business-As-Usual Scenario** – In the absence of a national coordinating body, mechanism, and dedicated staff, many cross-sector activities will occur without streamlining, leading to both gaps and redundancies. Coordination and information continue through informal networks and thus information and data are lost along the way. Sustainable Forest Management (SFM) will be developed again using informal networks and may miss many cross-links. Similarly, even though Palau has a Climate Change Policy, development may occur that is not adaptable to change.
156. Without a dedicated effort to streamline biosecurity at the national level, IAS will spread and negatively impact biodiversity.
157. Without investment, funds for reviewing EQPB's mandate will take many years to raise, reducing immediate action to minimize threats from tourism development and sedimentation.
158. **Proposed Alternative Scenario –** This project will establish a national coordinating mechanism and will provide full capacity (training and staff) to make cross-sector links a reality. Cross-cutting issues such as biosecurity, climate change adaptation, SFM, water resources, and other ridge-to-reef issues will be standardized across all plans.
159. Momentum for positive environmental action will continue and grow, given expected stronger stakeholder relationships and alignment combined with clear information sharing expectations and mechanisms, and the number of gaps and redundancies will reduce. Improvement in Policy and Regulatory Frameworks will lead to an increase in the GEF METT Score by 66%.

2.7 Linkages with other GEF and non-GEF interventions

160. The project leverages from the global/regional setaside funding participation in the UNDP "Ridges to Reef" programme (R2R) at a value of $175,000. This project is fully aligned with and expands upon the outcomes in the Palau National International Waters (IW) R2R Project Results Framework of the Ridges to Reef programme:
    - *(a)* Component 1 (*Strengthen coordination in support of the implementation and national replication of the Ngerikiil Management Plan*) – This project expands upon the R2R component by strengthening nationwide coordination and contributes to R2R Outcome 1.2 by taking lessons learned from the Ngerikiil/Airai State Master and Land Use Planning process and scaling it to 4 additional states.
    - *(b)* Component 2 (*Strengthen the capacity for participatory monitoring and evaluation of the Ngerikiil Management Plan to strengthen the enabling environment for catchment management in Palau*) – This project contributes directly to the outcomes with improved data collection and sharing via web-

based systems and a nationally coordinated process, crowd-sourced data, capacity building for community monitoring, and development of METT for the PAN.

(c) Component 3 (*Establish public-private partnerships for tourism sector investment in IWLCM in Palau*) – The development of a National Sustainable Tourism Management Plan and associated Best Practices as part of this project through nationally coordinated implementation of the SLM Policy will meet the outcomes of this component (coordination, guidelines, and enhanced environmental protection).

161. Beyond specific activities, this project is also aligned with the spirit of the R2R project to mainstream "ridge-to-reef" approaches across multiple sectors (particularly water and forestry), develop climate resilient approaches to integrated land, water, forest and coastal management both in PAN sites and beyond, and share results broadly.
162. Specific outcomes addressing wetlands will expand on GEF 4 investments in the Pacific Adaptation to Climate Change (PACC) Project in Ngatpang State to mitigate saltwater intrusion into taro patches and implement adaptation activities for vulnerable areas in Melekeok. This will be in conjunction with the Belau Watershed Alliance and is part of a SPREP/UNDP project. This project is also aligned with the Palau Integrated Water Resources Management (IWRM) project implemented by UNDP and UNEP and executed by SOPAC.
163. In addition to supporting the regional Micronesia Challenge (MC) by expanding protected area coverage and improving management to meet "Effective Conservation" criteria, this project will expand on the GEF investment in the project "The Micronesia Challenge: Sustainable Finance Systems for Island Protected Area Management - under the GEF Pacific Alliance for Sustainability."

SECTION 3: INTERVENTION STRATEGY (ALTERNATIVE)

3.1 Project rationale, policy conformity, and global and local environmental benefits

Fit with the GEF Focal Area Strategy and Strategic Programme

164. **Strategic Focal Area: Biodiversity** - The project focuses on Objectives 1 (*Improve Sustainability of Protected Area Systems*) and 2 (*Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes, Seascapes and Sectors*) of the GEF 5 Biodiversity Results Framework and will improve Palau's ability to manage biodiversity at the local and national level, address threats and root causes to this biodiversity, and integrate protected area efforts more fully into overall sustainable landscape and seascape management in Palau. For Objective 1 the project builds on the gains made in the Micronesia Challenge GEF 4 Project by adding at least 4 new, more effectively conserved sites to the Palau PAN, including assessing their legislative framework and sustainable financing needs. Effort in this area will develop the full suite of desired METT for PAN sites, analyze coverage of unprotected ecosystems within the Palau PAN, and analyze gaps and opportunities for demonstrating functional linkages in cross-cutting issues (ridge-to-reef planning, biosecurity, climate change, and sustainable forest management). An updated revenue generation assessment from local and non-local sources at project inception and end will help

guide Palau's sustainable financing needs for the PAN. The project will significantly improve the PAN's ability to preserve and monitor critical ecosystems and species.

165. For Objective 2, implementation of priority areas in the Sustainable Land Management (SLM) Policy will improve land use planning and sustainable forest management across national and state governments to ensure the conservation of Palau's biodiversity and ecosystems in a manner consistent with national development goals in order to reduce pressures on those natural resources. This component of the project will also demonstrate similar functional linkages and represents scaling up of cross-cutting issues (ridge-to-reef planning, biosecurity, climate change, and SFM) from the protected area to the landscape scale. This will have a positive effect on coastal areas, including marine protected areas, through improved catchment management. Mainstreaming of protected area efforts into the wider SLM initiative will benefit and protect the investment in PAN in this project and from the Micronesia Challenge. The inclusion of both the PAN and SLM components will ensure that benefits are realized both inside and outside of protected areas. Benefits inside protected areas will be supported by the additional gains to natural areas outside of the PAN.
166. **Strategic Focal Area: International Waters** - This project meets objectives of the GEF International Waters Strategic Action Programme for Pacific Island Countries, particularly in the priority areas of integrated watershed and coastal management and water supply through Component 2 (Implementation of the SLM Policy) and Component 3 (National coordination and cross-sector linkages).
167. **Strategic Focal Area: Land Degradation** - The project focuses on Objective 3 of the GEF 5 Land Degradation Strategy (*Reduce pressures on natural resources from competing land uses in the wider landscape*) through development of national coordination mechanisms in each component and by implementation of the SLM Policy. Dedicated national coordination resources will result in the identification of competing land uses as well as competing or conflicting policies and plans among stakeholders, thus enabling streamlining. Identification and implementation of Best Practices across many sectors will minimize pressures at the immediate scale (PAN site or local community) and the landscape/seascape level.
168. **Strategic Focal Area: Sustainable Forest Management/REDD plus** - The project contributes to both Objectives of the SFM/REDD+ GEF 5 strategy (*Reduce pressures on forest resources and generate sustainable flows of forest ecosystem services* and *Strengthen the enabling environment to reduce GHG emissions from deforestation and forest degradation and enhance carbon sinks from LULUCF activities*). Integrated sustainable planning and capacity building at the PAN site level and state and watershed level will reduce pressures on forest resources. A suite of activities will coordinate SFM responses cross-sector, including updating SFM strategies and policies, identifying Best Practices, and raising awareness. Reduced greenhouse gas (GHG) emissions from sustainable forest management together with expansion of PAN to include conserving priority forest areas in new sites and improved management of existing sites will increase effective management of more than 8,000 ha of Palau's forests.

Fit with the UNEP 2014-2015 Programme of Work

169. This project contributes to the 2014-2015 and 2016-2017 Programme of Work for UNEP under Ecosystem Management. It will help UNEP help achieve Expected Accomplishment (a) (same for 2014-2015 and 2016-2017): *Use of the ecosystem approach in countries to maintain ecosystem services and sustainable productivity of terrestrial and aquatic systems is increased.* Through implementation of an ecosystem approach, Palau will contribute towards UNEP's target of 24 countries by 2015 and a 20% increase over the baseline by 2017. Under EA(a) for 2014-2015, this project will contribute directly to Output 1: *Methodologies, partnerships and tools to maintain or restore ecosystem services and integrate the ecosystem management approach with the conservation and management of ecosystems.* This project will develop a methodology for evaluating the ecosystem management approach through development of METT and a model for integrating nation-wide partnerships for coordinating environmental efforts at different scales. It contributes to the 2016-2017 Outcome 1: *Partnerships, technical support, education and awareness raising provided to countries to strengthen countries' development planning and investment decisions to apply ecosystem approaches for a green economy and for the protection and rehabilitation of forests, wetlands and other terrestrial ecosystems under threat.* UNEP tools and methodologies have been considered throughout the project and will be used in partnership with UNEP to strengthen Palau's planning efforts. Component 2, which focuses on land use planning and sustainable incomes, will further Palau's efforts to achieve a green economy.
170. The project also contributes to Palau's efforts to adapt to the impacts of climate change and in particular to Objective 5 of the GEF 5 Climate Change Mitigation Results Framework (*Promote conservation and enhancement of carbon stocks through sustainable management of land use, land-use change, and forestry*). Climate change is included in this project as a cross-cutting issue and responses and Best Practices will be aligned in PAN and SLM documents and outputs. National coordination through Component 3 means that there will be national level alignment with local level plans. Palau's 2015 Climate Change Policy informs development of Climate Change Adaptation Guidelines and Best Practices developed as part of this project and incorporated into at least 4 SLM and PAN plans. This project also addresses all five of the Aichi Biodiversity Strategic Goals and 12 of the 20 Targets. It will model innovative ways to tackle these over-arching targets in a Small Island Developing State scenario. This project will thus contribute each of the Multilateral Environmental Agreements (MEA) to which Palau is signatory, including:
    (a) CBD: Increased Protected Area coverage and sustainable financing, Sustainably managed sectors, and land use plans
    (b) UNCCD: SLM Plans for pilot sites and Best practices for land use
    (c) UNFCCC: Sustainably Managed Forest Area
    (d) Ramsar: Improved management of at least 2 wetlands, one of which is a Ramsar site
    (e) All conventions: Improved reporting and tracking across the environment sector.

171. Palau has pristine, healthy, highly biodiverse marine and terrestrial ecosystems. Global environmental benefits include protection of these habitats for at least 5 globally endangered birds, 3 endangered reptiles, 2 endangered mammals, 3 endangered plants, and countless other endemic and native flora and fauna, as well as improving conservation status for 2 species. It will improve management and reduce indirect pressures on a World Heritage Site, a Biosphere Reserve, and Ramsar Site. The project will contribute to global scientific research efforts in climate change, taxonomy, and evaluation.
172. At the national level, many root causes of the four priority threats (climate change, habitat loss and degradation, IAS, and over and illegal harvesting) will be improved, thus reducing direct and indirect pressures from those threats on biodiversity and livelihoods. This project will contribute to sustainable livelihood generation through sustainable tourism that also preserves and celebrates Palauan culture.
173. Important local benefits include protection of water sources and minimization of pollution, increased food security due to habitat protection and restoration, and expanded income generation opportunities from sustainable use of resources or sustainable tourism. For example, closure of the PAN site Ebiil Channel from 2005-2010 resulted in increased seafood availability, decreased fishing effort, and increased economic benefits. Increased community resiliency and reduced vulnerability to climate change will also result in targeted communities and at targeted habitats important to biodiversity and income (e.g. taro patches). It is anticipated that SLM implementation will raise property values for those sites that are sustainably managed (e.g. with least erosion). These biodiversity and socioeconomic values are aligned with the Ridge to Reef programme, which aims to enhance ecosystem services to reduce poverty.
174. This project will increase the livelihoods of Palauan men and women and equal opportunity will be a project policy. The project inception workshop and subsequent Plan policies and frameworks will also include consideration of gender mainstreaming, addressing one of Palau's challenge areas under the Beijing Declaration and Platform for Action. A report analyzing existing gender mainstreaming conditions and providing recommendations will be prepared under direction from the Executing Agency prior to the inception workshop.
175. This project meets numerous objectives of the GEF to safeguard global biodiversity values and sustainable human livelihoods; it capitalizes on existing gains from prior GEF investments; and it will highlight a comprehensive, coordinated approach to protected area management in harmony with sustainable land management.

3.2 Project goal and objective

176. The Goal of the project is to improve livelihoods and protect biodiversity. The livelihoods of most Palauans and the Nations economy are highly reliant on the natural environment and its biodiversity.
177. The Project Objective is: To effectively and sustainably use biodiversity and maintain ecosystem goods and services in Palau by building institutional capacity to integrate the Palau Protected Area Network (PAN) with the Sustainable Land Management (SLM) initiative, and fostering a ridge-to-reef approach across and within these initiatives.

3.3 Project components and expected results

178. This project is composed of three components. Starting at the site level, **Component 1** will improve the design and implementation of the PAN. Moving the landscape level (e.g. watersheds), **Component 2** will implement priority sections of the SLM Policy to minimize wide impacts from land use. At the national level, **Component 3** will ensure integrated coordination and streamlining across PAN and SLM, mainstreaming of cross-sector issues into PAN and SLM, mainstreaming of biodiversity values into national level development plans, and project management. Socioeconomic benefits will be realized throughout the project. By improving the functionality of the PAN, Component 1 will benefit local communities through the sustainable management of their local conservation areas. Indirect benefits will include improved harvesting values and availability of natural resources. Direct socioeconomic benefits include employment and benefits arising from tourism, fees, and fines from protected areas. Component 2 will improve ecotourism infra-structure with obvious employment benefits. This is in addition to expected benefits from better land management, including maintaining water sources and reducing downstream erosion, which will benefit downstream fishers and taro patch farmers particularly, contributing to long-term food security. Component 3 will reduce waste and reduncies amongst government agencies with public financial benefits.

Introduction to Site Interventions

179. Site interventions include a mixture of national and state level planning, policy development, capacity building, and outreach, as well as local level research and targeted, meaningful field interventions.
180. Each of three components has its own set of interventions; an important overarching activity is alignment between PAN and SLM and cross-cutting issues. This will be embodied in the day-to-day activities of OERC.
181. There are numerous cross-linkages between activities. For instance, during research activities, awareness building will also occur. There are also adaptive processes built into activities that are not explicit here; for instance, plans will inform capacity and research; research will inform plans and create loops for adaptive management. **Table 7** broadly overviews project interventions. **Appendix 12** includes a list of all deliverables to be produced as a result of this project. During project design, Palau developed a very thorough and comprehensive Results Framework to guide day-to-day implementation of activities. This follows standard practice in Palau, where participatory processes demand full transparency and tracking from project conception through final reports. However, at the request of the UNEP GEF Project Review Committee, the Results Framework was consolidated and streamlined to improve the efficiency of project tracking. The newer, more concise Results Framework is included within the text of the document. **Appendices 15 through 17** include the original Framework and Budget (**Appendix 15**), Results Framework (**Appendix 16**), and Key Deliverables and Benchmarks (**Appendix 17**).

Table 7: Overview of Site Interventions

Category	Intervention
Planning, with subsequent evaluation and adaptive planning	***Component 1: PAN*** National PAN Management Strategy development and alignment Updating of local PAN Management Plans with cross-linking sectors, sustainable finance, and Best Practices Drafting and alignment of a PAN Communications Plan (aligned with MC plans) Development of Management Course and Certification Program Updating and review of PAN Sustainable Finance Plan ***Component 2: SLM*** Development and alignment of National SLM Action Plan Updating of SLM Sustainable Finance Plan Updating of SFM Strategies Development of 4 state SLM Plans (master/land use plans) Development of National Sustainable Tourism Development Management Plan Updating PAN and state plans with Best Practices from Tourism Plan Development of Water Pollution Reduction Strategies (e.g. Beneficial Animal Waste) ***Component 3: Integrated Coordination, Cross-sector linkages*** Development of species-specific management plans for 2 species Development of eradication and control strategies for 2 IAS Incorporation of Climate Change Adaptation into existing plans Aligning of all PAN, SLM, and cross-sector plans (at all national and local levels)
Policy development, streamlining, endorsement, and adoption	***Component 1: PAN*** Development of PAN Criteria and Ranking Systems Agreement of METT Legislative and community protection of 4 new protected areas Development of expanded Palau-specific conservation curriculum ***Component 2: SLM*** Creation and empowerment of National Coordination Body Development of SFM Policies Identification of Best Practices for tourism, ridge-to-reef (in land use planning), agriculture, water, reforestation, forest rehabilitation, and erosion control Drafting of legal and regulatory framework for tourism Best Practices Adoption of Fire Prevention Protocols ***Component 3: Integration*** Development of National Biosecurity Policy with legal and regulatory framework Creation of organizational structure and signing of MOUs; creation of new staff position in government hierarchy Clarification of EQPB Mandate Development of EBM Guidelines and Best Practices (ridge-to-reef) and Climate Change Adaptation Best Practices Development and authorization of earth moving Certification Program
Outreach, Capacity Building, and Training (Education)	***Component 1: PAN*** PAN Awareness activities at legislative and community levels Training of PAN Managers in Management Course/Certification Program Capacity Building and Training in Best Practices for PAN Staff

Category	Intervention
	Component 2: SLM Outreach on Best Practices (multiple subjects) Workshops on sustainable agriculture, water, and small business development Training in water pollution control (e.g. beneficial animal waste practices) Outreach on fire prevention and plans ***Component 3: Integration*** Capacity building for and empowering of GEF 5 Project Steering Committee and staff Sharing of data locally and regionally via the web and presentations; data management training Awareness activities targeting SFM, enforcement, and other cross-sector issues
Research, Increasing information available	***Component 1: PAN*** Assessment of Taxonomic baseline and needs Determination of PAN site connectivity Identification of comprehensive stakeholder list Desktop review of all relevant legislation Identification of indicators to fill METT gaps Fish and bird monitoring Standardized assessment of PAN Site Effectiveness Socioeconomic surveys of MPA perceptions Implementation of citizen science / crowdsourcing activities ***Component 2: SLM*** Assessment of tourism capacity and opportunities in key sites Review of legal and regulatory needs for tourism Monitoring implementation and effectiveness of SLM and cross-linkages Mapping of burn areas and assessment of burn effects Mapping and determination of PAN/non-PAN sites for ethnobotanical, archeological, and historical relevance ***Component 3: Integration*** Monitoring of local capacity and forests; evaluation of PAN, SLM, and cross-sector implementation and establishment of feedback loop Indicators developed for Sustainable Harvesting Rates and Ridge-to-Reef
Field Interventions	***Component 1: PAN*** Implementation of community management actions in PAN sites Testing and implementation of new income streams in pilot project sites ***Component 2: SLM*** Expansion of tourist opportunities on Babeldaob Implementation of Best Practices for tourism, water, SFM, Climate Change, beneficial animal waste strategies, in Demonstration Catchment Expansion of sites with reforestation, forest rehabilitation, and erosion control ***Component 3: Integration*** Development of local website and sharing arrangements Full implementation of METT Translation, distribution, and use of Palauan language materials Expanding of National Botanical Garden (with trial plots)

182. At the time of project development, OERC was the agency with the national mandate to coordinate environmental actions. However, the Palau Government may reorganize itself to include a Bureau of Environment (BOE) within the Ministry of Natural Resources, Environment, and Tourism; in which case the staff at OERC would become staff of the BOE and references to OERC would be replaced with references to BOE.

Component 1. Improving Palau's Protected Areas Network

183. This component builds on Palau's successes with protected area establishment and streamlining of sites into a national Protected Areas Network (PAN). It fills essential gaps that hinder effective conservation of sites and maximizes achievement of national and global level biodiversity benefits. This enables the long-term solution of improved biodiversity protection through a strengthened PAN and minimizes key barriers due to the fact that PAN tools and strategies are not fully developed or formalized. With implementation of this component, Palau stands a better chance of meeting its national and Micronesia Challenge goals (30/20%) by 2020 (it will meet total coverage goals). It is anticipated that this Component will equally benefit both men and women. Protection of terrestrial sites will contribute to access to improved water quality and national biodiversity benefits, which is a public benefit. Improvement in the management of Marine Protected Areas will benefit both men who fish for vertebrates and women who collect invertebrates. New employment opportunities created from this PAN Component are expected to benefit young men in outlying states, who are often marginalized due to having reached lower educational attainment than women. This Component is not expected to have any negative impacts on gender equity or on marginalized communities.

Outcome 1.1: Improved Design, Evaluation, and Implementation of the PAN leads to increased engagement by states, improved coverage of sites, species, and ecosystem functions, and increased conservation effectiveness.

184. The baseline analysis noted that key SOPs as required by the PAN regulations do not exist, creating inconsistencies and barriers to full realization of PAN benefits. This outcome will create several of those SOPs, thereby improving the PAN regulations and reducing inconsistencies. The PAN National Management Strategy will fulfill the regulation's requirements for a PAN Design and Sustainable Development Plan. This is a key element for inclusion of SLM cross-linkages and cross-sector issues, with standardized approaches and Best Practices guiding site level management. The PAN Office will take the lead on development of the plan, in consultation with stakeholders. To formalize the plan, endorsement will be sought at the Ministry level.
185. Although there are existing guidelines and proposed criteria for site management plans, these are not formalized or adopted as standard and as such individual PAN site management plans are inconsistent and difficult to compare in terms of financing. The inclusion of minimum guidelines will meet gaps in the SOPs. Although the PAN Office will be the lead organization, this process will be done in conjunction with the states and their PAN site management teams. This activity is essential for taking cross-sector issues from the national level and implementing them at the local and site level (e.g.

streamlining national and regional IAS and biosecurity policies, plans, and Best Practices into site level management plans).

IMPROVED DESIGN:

186. Currently only 15 states are engaged in PAN and only 13 have PAN sites, of 16 total, even though every state has known important sites and species. The PAN National Management Strategy will outline priorities for engaging with the remaining 3 states through an improved nomination process and by developing PAN sites that meet national and local level biodiversity needs.
187. Existing PAN sites have been established without an overarching plan, often influenced by political will rather than biological priorities. This leads to gaps in protecting priority areas and redundancies in lower priority areas, creating inefficient use of financing. This outcome will provide the scientific basis for prioritizing particular sites. Activities will enable a ridge to reef perspective for site inclusion in the PAN. Stakeholders at PICRC have been trained in the use of CBD-supported Marine Spatial Planning (MSP) processes and have incorporated them into their methods for determining a comprehensive network fo MPAs. These activities are part of a PAN Design Revision Study currently being conducted by The Nature Conservancy and PICRC.
188. This outcome signifies an important advancement for Palau in terms of species management. Knowledge of species requirements is low and many management plans take a habitat perspective by necessity, using proxy indicators to judge species health. Activities here will improve baseline assessments and understanding of biodiversity at the genetic and species level. Increasing knowledge of species status and protection needs will address one of the root causes of numerous threats. This project may contribute data and conservation gains to regional projects addressing endangered species (e.g. UNEP's Dugong project and a SPREP sea turtle project). Palau is participating in the Pacific Region Access and Benefit Sharing project due to start in late 2015 and implemented by UNEP. Alignment and integration will be ensured where appropriate.
189. This outcome will address a root cause of threats, namely that priority biodiversity areas are not fully understood, leading to gaps in protection and unsustainable use in high priority areas and compounding climate change threats.
190. Modeling PAN site connectivity will directly address the threat of climate change by identifying refugia that feed into more impacted areas. The Taxonomic Needs Assessment will capitalize on Palau's new genetic evaluation resources to achieve national benefits. As a site of scientific interest, several studies on marine ecosystem resilience (to climate change stressors) have been done for Palau. This information will be utilized in the PAN Strategy and design. Additionally, Palau will utilize its relationships with UNEP and the JPO to access new tools from UNEP to better incorporate resilience into MPA design.
191. Together the PAN Strategy and PAN criteria and ranking system will provide the national government with its first opportunity to streamline protected area management for the purpose of national and global level biodiversity, and will provide the PAN management committees and offices with methods for selection that are standardized and independent of political will.

Outputs	Activities
1.1.1 IMPROVED DESIGN: A National PAN Management Strategy and Action Plan is developed and endorsed by 2017; and the National and associated State Plans 1) align with SLM in the 4 core areas and with regional projects such as R2R, 2) engage all 16 states, and 3) cover gaps and ensure representative coverage of sites, species, and ecosystem functions, and 4) address the applicability of national, regional, and global goals and benefit-sharing.	1.1.1a: Develop a National PAN Management Strategy that is supportive of national SLM policies, uses existing and proposed systems for criteria and ranking of existing and upcoming PAN Sites with specific consideration of the 4 cross-sector issues (SFM, IAS, Climate Change, and R2R), uses standards criteria for ranking species protection needs, models PAN site connectivity, and considers national, state and local level natural resource management policies, laws, regulations and agency mandates
	1.1.1b: Following development of a communication plan, work with PAN Site Managers to update individual PAN site management plans to reflect National PAN Management Strategy
	1.1.1c: Consult subject experts and local naturalists to conduct baseline assessment of all PAN MPAs in Palau, including ecological surveys, socio-economic surveys and outreach and education campaigns. This broad scale pilot study will provide valuable information on the effectiveness of Palau's PAN network, and if Palau is meeting the Micronesia Challenge goals of "protecting effectively at least 30% of nearshore habitats"
	1.1.1d: In support of the GTI, consult subject experts and local naturalists, conduct field surveys, and employ available genetic evaluation resources to conduct a Taxonomic Needs Assessment of Palau's terrestrial and aquatic biodiversity

IMPROVED EVALUATION:

192. METT will be harmonized at the national and state level and agreed for use. PAN evaluation tools will align with GEF METT ("Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5") and with Micronesia Challenge effective conservation measures, such as an Ecosystem Condition Score. Improved evaluation tools will be trialed in 9 sites: 4 new and 5 existing PAN sites to judge their applicability and effectiveness for sites added to PAN under the old regime (political influence) versus the new regime (scientific criteria). Significant progress has already been made in developing METT as part of the PAN and the Micronesia Challenge, with indicators identified and agreed for the marine sector, and possible indicators identified for terrestrial areas and socioeconomic benefits. METT will be developed through a participatory process to ensure that they can be implemented in the field. The Palau PAN Office will be given the task of overseeing development of the METT, but will do in partnership with academic partners in Palau (such as PICRC and BNM) to ensure rigorous development and applicability. In do so, development of METT will take into account existing tracking tools and methods developed by the R2R Programme, Micronesia Challenge, UNEP, and elsewhere.

Outputs	Activities
1.1.2: IMPROVED EVALUATION: Management Effectiveness Tracking Tools (METT): Agree on a set of 3 harmonized national and state level PAN site monitoring and evaluation tools and protocols (1 marine, 1 terrestrial, 1 socio-economic)	1.1.2a: Identify and evaluate existing relevant monitoring and reporting programmes and other tracking tools (such as from the R2R programme, the Micronesia Challenge, and UNEP), and assess the existing body of research, to build a unfied terrestrial, marine, and wetland METT for PAN Sites. Consider down-scaled climate modelling (including impact on coral reef systems), resilience indicators for assessment and decision support. Include procedures for conducting a Protected Area Management Effectiveness (PAME) evaluation.

which are aligned with METT, with full trial and evaluation of Palau's METT tool in at least 9 PAN sites by the end of the Project.	1.1.2b. Test the METT in 9 pilot sites and generate PAME Evaluations.
	1.1.2c: Identify percentages of Palau's terrestrial area and marine area that are currently part of effectively managed protected areas
	1.1.2d: Support the Northern Reef Fisheries Initiative pilot project as a locally driven socio-economic METT, incorporating community-based monitoring of PAN

IMPROVED IMPLEMENTATION:

193. Inclusion of 4 new areas into the PAN will be guided by the PAN Strategy and new design criteria, but efforts are underway to recruit at least two sites from those that have recognized global biodiversity values: 1) The Rock Islands Southern Lagoon (95,000ha marine, 5,200ha terrestrial), a UNESCO World Heritage Site (inscribed in 2012) containing nearly one-third (1/3) of Palau's total forests, hundreds of entire islands and the sole known location of *Ponapea paluaensis* (EN), and 2) The Ngeremeskang Nature Reserve (1100ha terrestrial), a large ridge-to-reef site with numerous endangered and endemic species. METT will address cross-sector issues.

Outputs	**Activities**
1.1.3: IMPROVED IMPLEMENTATION: At least 4 PAN sites meet a minimum METT score, and at least 5 other sites show improving trends toward effective conservation (e.g. reduction in over/illegal harvesting) by the end of the Project and total area protected.	1.1.3a: PAN site management plans updated to address IAS, climate change, SFM, Ridge to Reef planning, and site plans are in alignment with national policy and standardized criteria
	1.1.3b: Work with states to nominate and approve at least 4 new PAN sites, or expand existing PAN sites, to add at least 95,000 ha of marine area and 6300 ha of terrestrial area, increasing the area of key ecosystems and the number of states currently protected in the PAN

Outcome 1.2: PAN management capacity (engagement, training, and financial) and coordination improved across sectors and across governance levels and results in benefits across genders and for marginalized populations in outlying states.

IMPROVED ENGAGEMENT:

194. At the heart of conservation in Palau is community. Protected areas are locally protected and as such, PAN effectiveness must be driven by local participation. Thus, this outcome is critical for achieving long-term solutions and mainstreaming biodiversity and conservation values into daily life.
195. Dedicated effort must be made to raise awareness and thus improve compliance with management protocols. This outcome will raise awareness of the PAN and thus raise support for the PAN and involvement in the management regime. Community is a broad term and it is impossible to reach everyone, but key stakeholder groups will be targeted.
196. Design of awareness materials and outreach procedures will be based on the outcomes of a socioeconomic survey on the public perception of MPAs. Results will inform priority outreach areas. The target of 80% reach improves on current baseline, with only small segments of communities reached during outreach (elected officials, older men and women), but is achievable. The 8 states targeted will be based on the

PAN Strategy but will most likely be those states with indicative need for improved support.

197. Improving awareness will facilitate incorporation of cross-sector issues into local plans and address threats that are compounded by low community awareness, such as over harvesting and accidental habitat degradation.

Outputs	Activities
1.2.1: IMPROVED ENGAGEMENT: An outreach program reaching at least 80% of stakeholders in 8 states results in communities that are measurably more aware and supportive of PAN and increasing active participation in management of PAN Sites.	1.2.1a: Conduct socio-economic surveys of public perception and key stakeholders of MPAs in Koror, Airai and 4 other states
	1.2.1b. Develop and implement a PAN communication plan with the goal of establishing permanent outreach activities to build public awareness and support of PAN
	1.2.1c: Building on the success of eBird, identify other online databases to enable citizen science crowdsourcing as a means to participate in biodiversity and ecosystem monitoring
	1.2.1d: Work with MOE to integrate Palau-specific biodiversity and island ecosystem topics into national curriculum standards

IMPROVED TRAINING:

198. Building capacity is a key element, as one key barrier is that few individuals are currently able to implement all necessary cross-sector activities to achieve national biodiversity benefits. This outcome will result in improved capacity both at the legislative level and at the personal level. Existing capacity programs will be identified and streamlined, such as monitoring programs offered by PICRC and management professional cohort training programs developed by PCS. Palau Community College has the infrastructure necessary to house a program, both with tourism programs and environmental/science programs. The conservation management course curricula will follow the National PAN Strategy and elucidate PAN SOPs as well as provide training in conservation practices.

Outputs	Activities
1.2.2. IMPROVED TRAINING: The number of trained, certified PAN Staff increases by at least 15 and benefits some marginalized populations in outlying states.	1.3.2c: Conduct capacity building training for PAN staff targeting improvement of monitoring, reporting and data management
	1.3.1b: Develop a conservation management course/certification program through a partnership with conservation sector and PCC professionals

IMPROVED FINANCING:

199. PAN at all levels is funded by multiple funding streams: PAN Fund (largely Green Fee), MC Endowment, grants, local and government appropriations, local fees and fines, and in-kind services by every stakeholder. While diversifying the income stream is desirable, without coordination funds may be spent inefficiently due to redundancies and there may be unnecessary gaps in protection. This outcome will result in improved understanding of financing opportunities and priorities.

200. Heavy reliance on the Green Fee as the primary revenue source, however, puts Palau at risk of global economic variability. Tourism will remain a primary source of income, but diversifying income streams from tourism will lead to more predictability. Tourism streams will be tested in PAN sites that already receive tourists. Sustainable

financing mechanisms from tourism will be piloted in Ngardok Nature Reserve, the Rock Islands Southern Lagoon (RISL), and Ngarchelong's Northern Reefs.

201. There has been no specific evaluation of financing needs of the PAN. The existing sustainable financing plan was developed for the Micronesia Challenge. The Micronesia Challenge GEF 4 Project updated the Sustainable Finance Plan and developed a Business Plan that targets external funding; Palau needs similar dedication to an internal financing. Sustainable financing for the PAN should also take into account SLM financing, which includes many of the same sources. Updating the PAN Sustainable Finance Plan so that it is specific to the current situation will enable identification of cross-sector issues and links with SLM. This outcome will enable ongoing engagement and support of the Micronesia Challenge. Results from local sites piloting sustainable financing in tourism and other sectors (e.g. permitting and fees or fines in Ngardok Nature Reserve, RISL, and/or Ngarchelong's Northern Reefs) will further inform the PAN Sustainable Finance Plan. The GEF METT target is a 50% improvement in the Financial Sustainability score across all three components.

Outputs	Activities
1.2.3 IMPROVED FINANCING: PAN revenue generation assessment from local and non-local sources at project inception (baseline) and project end show diversified financial support at the national and state levels and alignment with regional programs such as the Micronesia Challenge, and benefits are shared widely with gender and environmental safeguards in place.	1.2.3a: Commission a formal review and update of the PAN Sustainable Financing Plan and actual funding conditions of the PAN Fund (Green Fee and grants), to include a monitoring and reporting program.
	1.2.3b. The PAN Fund will work with states to identify new and improve existing income streams, including building reserves to support ongoing PAN needs through economic downturns, as well as alignment with new and existing SLM Plans.
	1.5.2c: Develop strategies and implement pilot projects to diversify funding for Ngardok Nature Reserve, the Rock Islands Southern Lagoon area and the Ngarchelong Northern Reefs area to include eco-tourism as part of larger state-level tourism portfolios with a view to having a wider application to other sites and states in Palau
	1.5.3a: Develop a communication plan in alignment with the Micronesia Challenge communication strategy to build awareness of the updated PAN Sustainable Financing Plan, and gain endorsement by the PAN Board

Component 2: Effective Implementation of Palau's Sustainable Land Management (SLM) Policy

202. This component takes the next step up in the hierarchy of management, from sites to broader landscapes, with particular emphasis on watersheds and states. Whereas protected areas have intensive management, SLM consists of broad, daily decisions and actions that minimize undesirable environmental impact to both sensitive areas and the general environment. The impacts of land use have both point source and nonpoint source impacts, and are felt at the point of impact and beyond (often downstream).

203. Palau and GEF invested heavily in the development of the SLM Policy, but implementation is limited and is a key barrier to achieving integration between the site level PAN management and landscape level land use. This project will build on local implementation in Melekeok, Koror, and Airai, which have addressed various aspects of the SLM Policy.

204. There are many priority areas in need of full development in the SLM, but tourism is the priority one selected for emphasis by this project. Tourism is essential to Palau's GDP and, as described in Component 1, an important part of sustainable financing for the PAN. To ensure linkages, this component will focus on SLM and tourism. Special attention will be paid to this Component to ensure that it achieves benefits for women, particularly those who farm, and that it has no negative impacts on Foreigners involved in the farming or tourism sectors. Palauan women of all ages and socioeconomic levels will benefit from the activities in this component through improved harvesting due to implementation of Best Practices in agriculture. As in the past and as well-documented in the Ngerikiil Watershed Assessment, inclusion of Foreign workers in improved implementation is an accepted part of the process. In the past materials have been translated and special liaisons from the BOA have worked on an individual level to improve farming practices of both Palauan and foreign workers. The SLM Coordinating Body includes representation from the MCCA and the Labor Division, both agencies have safeguards in place to consider gender and marginalized communities.

Outcome 2.1: Improved and effective planning, alignment, and coordination of the Palau SLM Policy

IMPROVED PLANNING:

205. The SLM Policy has been developed and endorsed, but implementation is slow. The SLM Policy calls for a SLM Action Plan to guide implementation. This is a significant area for alignment with PAN and with cross-sector issues. Numerous Best Practices will be developed as part of this project; the SLM Action Plan is a natural repository for these guidelines and as such will facilitate their use.
206. A broad stakeholder base was influential in development of the SLM Policy, including many sectors that are not usually involved in biodiversity conservation (such as the Chamber of Commerce and economic agencies). Inclusion of this broad stakeholder base in the development of this plan will continue the momentum created by the SLM Policy drafting process and keep engagement levels high. This will have particularly beneficial impacts on tourism and development.
207. This outcome addresses nearly all root causes of threats.

Outputs	Activities
2.1.1: IMPROVED PLANNING:A National SLM Action Plan that incorporates ecosystem-based management (such as R2R), includes updated sustainable financing information and goals, addresses cross-sector issues such as SFM and Climate Change, considers benefits	2.1.1a: Develop and implement a National SLM Action Plan that incorporates ecosystem-based management practices and is aligned with the National PAN Management Strategy
	2.2.1b: Update existing SLM Sustainable Financing plan
	2.2.1c: Review and update SFM strategy, and develop policies to enable implementation of SFM practices

across genders and marginalized communities, and aligns with the PAN is designed and agreed.	

IMPROVED COORDINATION:

208. A key barrier to implementation of the SLM Policy is the lack of a Coordinating Body. Without a single entity responsible for implementation the SLM Policy remains unrealized. Similarly, funding for the Coordinating Body and for implementation of plans and Best Practices is lagging behind need. Coordination between PAN and SLM occurs now in an informal and inconsistent setting, whereas with a Coordinating Body, and in conjunction with activities in Component 3, coordination and streamlining will be institutionalized.
209. Improved coordination will create a feedback loop between PAN and SLM. As SLM strategies are developed and Best Practices are identified, they will be incorporated into PAN site management plans, creating a cycle of feedback from site to landscape level and back.
210. This is a key outcome for ensuring that cross-sector issues are aligned at the site and landscape levels. This outcome will reduce management without planning and evaluation. The GEF METT target is a 66% increase in the Policy and Frameworks score across all three components.

Outputs	Activities
2.2.1: IMPROVED COORDINATION: A national coordinating mechanism and body for SLM with representatives from at least 6 sectors and levels of government is operational and includes associated capacity building and resourcing to ensure its function.	2.2.1a: Identify an existing body or create a national steering committee responsible for coordinating implementation of SLM and SFM activities across sectors, with OERC (or BOE) providing leadership to the committee, and members from at least 6 sectors

Outcome 2.2 Increased implementation of the SLM Policy in the key sectors of land use planning, land uses, and tourism development.

INCREASED LAND USE PLANNING:

211. States have jurisdiction over their lands, including the responsibility to zone. Land use plans must be at the state level, and are most effective when at the even smaller watershed scale. This project will speed the development of land use plans significantly and create momentum as well as a standardized process for landscape level planning. The project will develop SLM Plans (land use plans and master plans) for 4 states. The inclusion of monitoring at the community level also creates a feedback loop to inform ongoing development and implementation of plans, to reduce pollution (into water sources and marine habitats) and improve management of biodiversity outside of PAN sites, with particular emphasis on sensitive sites

Outputs	Activities
2.2.1 INCREASED LAND USE PLANNING: State SLM Plans for at least 4 states are	2.2.1a: Develop and implement State SLM Plans (with evaluation) in alignment with National SLM Policy in at

developed, tested, and implemented	least 4 states

IMPROVED LAND USE:

212. Current SFM strategies, which focus on large-scale logging that does not occur in Palau, are based on models provided by technical partners from the USA and thus are not appropriate for Palau's small land mass and unique forests. Existing SFM strategies must be updated to account for the situation in Palau, where non-forest products are used for medicine or recreation.
213. This output specifically addresses threats that are caused by lack of Best Practices, such as for agriculture, water conservation, and fire. Together, these areas are essential for food security.
214. The Ridge to Reef approach and Demonstration Catchments offer opportunities for scaling up from site to watershed to state to national level planning. This would require changing the scale of the catchment, but may offer a scientific model for determining the impact on any level of area.

Outputs	**Activities**
2.2.2: IMPROVED LAND USE: Best Practices for multiple land uses are identified, tested, promoted; and capacity to implement them is built, particularly among vulnerable populations such as women and foreign farmers.	2.2.2a: (Agriculture) Develop Best Practices in Agriculture and conduct workshops to build capacity.
	2.2.2b: (Water Resources) Expand existing water conservation best practice guidelines and public awareness programme
	2.2.2c: (Reforestation, Erosion, SFM) Scale up lessons learned from Ngardok Nature Reserve and Ngarchelong State reforestation and erosion control initiatives to produce reforestation and rehabilitation guidelines, and expand practices into at least 3 terrestrial PAN sites and 1 catchment area. Update SFM Strategies for Palau.
	2.2.2d: (Fire) Develop fire prevention protocols such as fire breaks and green belts, identify and map at least 4 priority fire management zones in both protected and non-protected areas, and implement and test the protocols in these areas
	2.2.2e: (Rare sites) Conduct studies and map and overlay key natural and cultural features, significant ethnobotanical sites, archaeological, historical, or otherwise unique or special sites to identify conservation hotspots that may need to be targeted for protection (and otherwise not captured in PAN).
	2.2.2f: (Tourism) Develop sustainable tourism guidelines and best practices communication materials, and conduct outreach to relevant sectors
	2.2.2g: (Coordinated SLM Demonstration) Identify, assist, and promote at least 1 Demonstration Catchment with policies in place to implement an integrated SLM approach, including Ridge to Reef ecosystem management

SUSTAINABLE TOURISM:

215. This projects recognizes and embraces that tourism is a driving economic force in Palau and thus this outcome is key to ensuring tourism growth occurs sustainably. Protected areas and high value scenic areas are of extreme value to tourists, but their value may be compromised and reduced by overuse or through inconsistencies in management and access. All accessible tourism facilities in Palau are owned by the States and thus subject to the State's individual tourism plans and policies. However,

as tourism outside of Koror is fledgling, there exists the opportunity to develop a comprehensive Sustainable Tourism Management Plan that meets National and State needs while maximizing income for SLM and the PAN.

216. Babeldaob is a key site for tourism expansion but is a fragile environment. Transitioning tourism to Babeldaob would reduce pressure in Koror and the RISL World Heritage Site, but would introduce new threats to the island. Thus coordination by SLM of tourism development taking into account cross-sector issues such as ridge-to-reef erosion is necessary. Sites selected as part of this project already receive tourists and thus have already faced many of these impacts but offer the chance to "get it right" in terms of sustainable environmental management.
217. This outcome will create long-term solutions for root causes of several threats (such as negative tourist impacts and limited information sharing) and will reduce environmental degradation. This may be in the form of legislation, regulations, mitigative measures, or Best Practices as well as field interventions, both related to tourism and beyond.

Outputs	**Activities**
2.2.3: SUSTAINABLE TOURISM: Improved national level tourism planning and state level implementation of tourism leads to benefits realized across genders and socioeconomic levels.	2.2.3a: Assess tourism capacity development needs and opportunities to improve tourist experience and promote sustainable tourism in different regions of Palau: a) Koror/RISL; b) Babeldaob; c) More accessible outer islands (Peleliu, Kayangel, Angaur)
	2.2.3b: Draft a National Sustainable Tourism Management Plan that will a) Address key management issues in the RISL on a national level; b) Expand interest, access and activities available for tourists on Babeldaob; c) Identify best management practices to support SLM in tourism-related industries across sectors (i.e. coordination with PAN, improvement of diving experience, fishery/reef management, local food access, etc.); d) Develop a strategy for improving infrastructure needed to support anticipated growth in the tourism industry using SLM principles
	2.2.3c: Draft legal and regulatory framework necessary to support implementation of Palau's National Sustainable Tourism Management Plan
	2.2.3d: Design and implement sustainable tourism management plans in at least 4 states: Koror (targeting the RISL); Ngarchelong (Northern Reefs); Melekeok (Ngardok Nature Reserve); and one other state

Component 3: Integrated Coordination, Mainstreaming & Project Management

218. This component is essential for the identified long-term solutions to come to fruition, leading to more sustainable development in Palau. Although there are many efforts to coordinate both formally and informally, development and protection of biodiversity have been driven opportunistically by individual, variable needs and conditions, rather than by a comprehensive plan. Component 3 is necessary to take Palau from a nation of fragmented environmental initiatives to a streamlined model nation where major initiatives are coordinated and aligned. Identification and empowerment of a coordinating body, and subsequent capacity building, is key. This is an innovative approach to coordination across sectors that could be applied to other small island developing states.

219. Component 3 builds upon the site level and landscape level approaches of the PAN and SLM and incorporates nation-level, cross-sector issues that apply at all levels and to all locations (IAS and biosecurity, ridge-to-reef approaches particularly as they apply to water resources and earth moving, Sustainable Forest Management, and Climate Change adaptation and mitigation). Many of these exist in some form, but there are gaps and redundancies. This project will network existing efforts and stakeholders to create a unified, umbrella approach. The explicit consideration of climate change in cross-sector projects will benefit society at large, but is expected to particularly benefit women as they adapt to expected changes in climate.

Outcome 3.1: Effective coordination role by the Office of Environmental Response and Coordination (OERC) (or designated government agency) for this Project and environmental actions in Palau, including through facilitating information-sharing and two-way learning and thereby ensuring benefit sharing among a wide population.

220. Although PAN and SLM are complex, Palau is still small enough of a community that integration among sectors at the national level is both feasible and valuable. Thus enabling OERC (or designated agency) to take on that role and empowering OERC to do so is key to removing barriers to long-term solutions. OERC has been chronically understaffed and thus always at a point of stress; whereas the agency is in a position to be a leader among conservation organizations in Palau. This project will provide the resources to allow OERC to take on its mandate as a national coordinating body.
221. Together, there will be three coordination entities: 1) PAN site management authority (such as a PAN Management Committee); 2) SLM Coordinating Body; and OERC acting as the center of the umbrella.
222. Building capacity of OERC will further enable it to implement and track this project and ensure that all deliverables are met and funding is used accordingly, thus building its capacity in other roles. Limited technical and staffing capacity have reduced OERC's ability to report to conventions; whereas a partnership model has proven successful. Thus, rather than OERC acting alone, by taking a coordination role it will engage more stakeholders and strengthen these partnerships, improving Palau's reporting to conventions.
223. A partnership model will facilitate information sharing as well as identification of gaps and redundancies. It will also model innovative approaches to streamlining and aligning activities and reducing disputes within a country's environment sector. Infrastructure to enable sharing and modernize data systems in Palau will also help with such identifications and reduce gaps and waste. Information sharing will also be promoted through existing partnerships. For instance, Palau – through MNRET – is a member of the World Conservation Monitoring Centre (WCMC), and thus shares information globally. Similarly, Palau expects to benefit from tools developed by UNEP, the WCMC, and others through these same partnerships.

Outputs	Activities
3.1.1: Improved capacity of OERC to act as the National coordinating body for Palau's	3.1.1a: Conduct a capacity needs assessment of OERC (including staffing needs) to identify obstacles to performing role as executing agency for environmental management, and develop strategies and actions for

environmental sector.	addressing these issues and provide training as necessary.
3.1.2: OERC effectively implementing, reporting, and evaluating Project.	3.1.2a: Develop project implementation organizational structure, MOUs for project implementing partners, and protocols and timeframes for reporting on Project Activities
	3.1.2b: Compile and review progress reports, evaluate Project implementation, and complete reports on progress.
3.1.3. Two-way peer learning approach fostered through participation in regional initiatives (Micronesia Challenge, Ridge to Reef, Integrated Water Resource Management, etc.) and uses multiple forms of communication and media to share lessons from the project.	3.1.3a: Identify or create a website where Project materials can be published, stored and maintained electronically for access by stakeholders, the public and other interested entities and post communications products to the website that illustrate Project progress and outcomes (including reports on Demonstration Catchments and Best Practices). Publish as necessary in other forms of media (e.g. paper) and share with R2R and other partners.
	3.1.3b: Support the development of peer-reviewed articles and sharing of information at relevant national and international conferences

Outcome 3.2: Effective national and state coordination of PAN, SLM and associated cross-sector issues

224. These cross-sector issues have been addressed in many other outcomes and activities, but are included here in a dedicated outcome to ensure that the national level integration of these issues (PAN/SLM links, ridge to reef (e.g. connectivity on land and marine), IAS and Biosecurity, SFM, and Climate Change adaptation) are prioritized as discrete actions. Actions that address species not fully protected in PAN sites will be targeted here for only 2 species, but as a demonstration for how such a process may occur. Similarly, planning for control or eradication of IAS that are not fully contained in PAN sites will also follow a similar process. The intial phases of this project will include purposeful discussions about the invasive species to be targeted as part of this project, so that agreement for the species targeted receives cross-sector support. This is an important step, as prior efforts to address IAS issues have often been driven opportunistically and reactively at the individual level and have lacked a wider mandate. Further, different agencies in Palau have varying priorities, with some agencies prioritizing invasive plants trees and vines over invasive animals. Although there has been much work done – and many international dollars spent – on IAS in Palau, key steps towards aligning efforts across sectors and agencies has not been completed. Coming to agreement over the species, after assessing the existing body of work that has been done on existing priority IAS species, will lead to greater support and buy-in for prioritization of IAS management and achieve more effective, proactive coordination of this cross-sector issue. However, this project will capitalize on the existing work that has been done on the ground in support of IAS issues by pulling those efforts together. This project purposefully does not include an actual IAS eradication effort because a) Palau's experiences across species (mammals, plants, birds) has shown that IAS eradication is far more expensive than ever originally planned, and b) requires wide-spread buy-in and support to be successful. National Biosecurity Plans in Palau will build on and be fully aligned with the existing Micronesia Biosecurity Plan.

225. EQPB plays a key support role in SLM and cross-sector issues, but its mandate is unclear and there are limits to its regulatory capacity. This is a gap that will be addressed by these activities. This will minimize threats associated with enforcement issues and improve the status of water resources. Together with actions in the R2R Programme, this project will clarify and strengthen EQPB. As an ongoing part of the IWRM Programme, EQPB may serve as the liason between Palau's GEF 5 Project Steering Committee and the R2R Project Steering Committee, thereby ensuring linkages between the projects. The coordination processes developed as part of this GEF 5 Project will feed data and information to EQPB so that it may complete annual "State of the Environment" that its regulations require (this will encompass the "State of the Coasts" reports required as a deliverable by the R2R Project).
226. A process to ensure OERC-led coordination of PAN, SLM, and cross-sector issues will be developed to streamline the coordination process. This process will capitalize on existing local and regional coordination processes, such as the National Environmental Protection Council (NEPC), the Micronesia Challenge Steering Committee, and methods used by the MC Regional Office and the R2R Project Coordinators. These coordination bodies have processes for sharing information that are often at a high level; this project will take these further by implementing a process to review documents and in-depth field information and agree on final steps. Thus it will modify the best of existing processes into a method that works for Palau. The final coordination process in Palau will maintain links at the high level between agencies, but also clearly link decision-making authorities and agencies to activities on the ground, thereby minimizing gaps and redundancies. When the vision for true coordination across sectors is realized, this will become an innovative model with application across the globe. A suggested process includes a suite of meetings, information sharing, and document reviews:
    (a) Regular (at least monthly) meetings between the Project Manager, Component Managers, and any major contractors involved in Component 3 (OERC, PCS, MNRET, PAN Office, Cross-sector consultants/contractors)
    (b) Quarterly meetings between Managers and their respective coordination body 1) PAN Office and PAN Management Committee; 2) PCS, MNRET, and the SLM Coordinating Body; and 3) OERC and cross-sector consultants. At these quarterly meetings the Managers will align any cross-region developments (e.g. from the Micronesia Challenge or the R2R Project and its networks), and identify and gather any project-related information necessary for reporting to these regional projects.
    (c) 6-month (biannual) meetings of the full GEF 5 Project Steering Committee (all members)[4,5]

[4] In this capacity the GEF 5 Project Steering Committee (SC) will take on more than the traditional role of providing guidance solely on the progress of the Project. The SC will thus have an advisory capacity as well as have a role in resolving cross-sector conflicts. The GEF 5 Project Steering Committee will have authority as it relates to this project only; however many of the members of the SC will likely be members of Palau's National Environmental Protection Council (NEPC), which does have an executive mandate (so far unrealized) to coordinate among agencies. Thus, advice taken by the SC could lead to decisions made by the NEPC.

(d) Online or physical document sharing process
(e) Coordination Review of documents, compared against a checklist or criteria to ascertain gaps, redundancies, complementarities, inclusion of Best Practices, and adherence to policies and plans.

Outputs	**Activities**
3.2.1: Enable effective cross-sectoral coordination of PAN and SLM policies	3.2.1a: Review EQPB's mandate in order to identify and clarify the agency's role in SLM and identify opportunities to incorporate SLM into the earth moving permitting process
	3.2.1b: Develop a programme to train and certify PAN site officers to enforce EQPB regulations to assist with erosion and sedimentation control
	3.2.1c: Develop guidelines for cross-boundary management of SLM/PAN issues, such as the continuous forest ecosystem linking Ngiwal and Melekeok States via Ngardok Nature Reserve
	3.2.1d: Develop species-specific management plans for key vulnerable species, linking PAN, SLM and SFM management practices
3.2.2: Streamline forest management across sectors, government levels, and within watersheds with at least 1/3 of native forest under protection and sustainable management (2100 ha in PAN sites and an additional 6000 ha in SFM catchments)	3.2.2a: BOA Develop and pilot a forest monitoring program using PAN, SLM and FIA standards based on reference plots from FIA as focal points for monitoring transects, and align and assist with PAN METT in 4 sites.
	3.2.2b: Develop and implement localized training materials to support improved forestry, terrestrial, and associated marine PAN management and monitoring capacity (including data collection, entry and analysis to support monitoring, evaluation and reporting of SLM/SFM/PAN management initiatives)
	3.2.2c: Expand the national botanical garden and develop a botanical partnership network, including the botanical garden and at least 4 PAN areas, 4 existing nurseries, and 1 catchment area to coordinate conservation and cultivation of botanical species and build capacity across organizations
3.2.3: A national biosecurity policy agreed upon with legislation drafted and with at least 2 invasive alien species (IAS) risk reduction or eradications achieved that demonstrates a harmonized approach by PAN and SLM	3.2.3a: Develop a National Biosecurity Plan and Strategy for managing existing invasive alien species, including Living Modified Organisms (LMO), and preventing the introduction and successful colonization of new alien species, including legal and regulatory framework
	3.2.3b: Establish ranking criteria and identify the top 5 IAS that need to be eradicated or controlled, including evaluation of Palau's capacity to effectively eliminate or manage these species (capacity to survey, map, control, and potential for eradication) and agree on eradication strategies to pursue for 2 species.
3.2.4: At least 4 states have SLM and PAN plans aligned with climate change adaptation plans, with at least one modeling a gender-inclusive approach to climate change adaptation	3.2.4a: Develop and implement climate change adaptation strategies integrating SLM and PAN management ideals with State SLM Plans and national plans.

[5] Biannual meetings have been successfully managed by the Micronesia Challenge, which includes individuals via the internet and remotely when necessary. This model for biannual meetings will be used by this Project.

3.4 Intervention logic and key assumptions

227. The central concept behind this project is that coordinating Palau's existing conservation efforts will lead to improved local and global benefits and reduce gaps, redundancies, and waste. Addressing three different scales at the same time (local/site, state/watershed, and national) will ensure streamlined approaches and maximize benefits beyond the site of the intervention.
228. Detailed assumptions are included in the project logframe. Key assumptions driving the project design are:
    - *(a)* Investment in document preparation will lead to realizable biodiversity values; effort put into planning is an adequate proxy for the harder-to-measure effort put in directly and indirectly in the field.
    - *(b)* Although tested elsewhere, several aspects of conservation science are still theory in Palau. One assumption is that networks of protected areas will essentially add up to form more than the components by delivering national and global biodiversity values. Another is that a positive equation exists in which development goals and environmental goals can both be realized in such a way that economic growth and positive returns in biodiversity are realized simultaneously.
    - *(c)* Awareness and capacity building will lead to behavior change.
    - *(d)* Political support for PAN and SLM will continue on its current trajectory (increasing) even as complexity and scope grows.
    - *(e)* The amount of information shared is a proxy for agreement and alignment.
    - *(f)* Projects can be scaled up and applied in new locations after demonstration in a different location. One assumption is that enforcement regimes that work in the urban center of Koror will be scalable to areas outside of Koror.

3.5 Risk analysis and risk management measures

229. Risks have been significantly elaborated since the PIF stage, as well as assessed for impact and likelihood. The project design is robust enough to absorb these risks if they become realities, and products themselves are designed to be adaptive in nature. **Table 8** lists risks.

Table 8. Project risk assessment and mitigation strategy

Risk	Assessment	Risk Mitigation Strategy
Some states refuse to engage in PAN	*Likelihood*: Low *Impact*: Low	Since its inception the PAN has faced discord. However, support for the PAN grows every year. This project includes a multi-pronged approach that involves outreach, assistance, and multiple stakeholders. Most outcomes will be realized even without all states being involved in the PAN.
Political will changes and support declines.	*Likelihood*: Medium *Impact*: Medium	Political will for protected areas is high, but this project is capitalizing on current support for SLM and national coordination from the current administration. It is possible that changes in administration could reduce support for the SLM component in particular. This is one reason why this project involves coordination at multiple levels and across sectors (PAN, SLM, national). In the event that support for SLM itself wanes, many of the activities can be subsumed into the PAN component.

Risk	Assessment	Risk Mitigation Strategy
Limited Pool of available talent for many new positions leaves them unfilled	*Likelihood*: Medium *Impact*: High	Although the project, as the Palauan government does, will prioritize hiring of Palauans first, positions may be filled from partnerships in Micronesia. Consultants are also already identified to take on most portions.
Long-term funding sources reliant on tourism, which is inherently variable.	*Likelihood*: High *Impact*: Low	Both the Green Fee and Sustainable Tourism activities are reliant on tourism. This project also stresses sustainable development for the purposes of self-sufficiency (food security from agriculture and minimization of habitat degradation and illegal and over harvesting). Sustainable tourism should promote changing the marketing of Palau to attract low impact, high value tourists, who are less likely to feel global fluctuations. Diversification through tourist dollars is still a valuable project outcome given the additional risk of changes in political will or policy to direct Green Fees to the PAN.
True national coordination is unwieldy, difficult OERC staff unable to take on national coordination Some stakeholders left out of process	*Likelihood*: Low *Impact*: High	Palau does have a complex environmental regime and the outcomes of this project are sufficiently ambitious enough to warrant assessment. This is one reason why this project has three separate but linked "coordinated coordination" plans. Coordination bodies exist in all three components and are discrete from each other (acknowledging that it may be the same people at times). This provides a safety network. The design includes multiple scales – local, state, and national – for the purpose of addressing all stakeholders, and there are sufficient community-based activities to use non-project personnel to recruit and identify additional stakeholders.
METT takes longer to finish than anticipated	*Likelihood*: Medium *Impact*: Medium	METT evaluation protocols are being developed in all three sectors and progress has been made. Failure to finish the METT tools will set the project back in terms of evaluating impact, but not in terms of implementing the work plan.
Internet access limited	*Likelihood*: High *Impact*: Low	Information sharing will be limited if Internet access does not improve in Palau. In this case, a two-pronged approach may be used: 1) use of the local Palaunet Intranet for sharing information within country; and 2) a system whereby regional partners are enlisted to upload information during frequent travel throughout the region.
Land Use Plans developed, not used	*Likelihood*: Low *Impact*: High	Land use planning in Palau takes a long time because it is community-based, and stakeholders may take many years to find agreement. This is one reason why the project builds in so many pilot sites and a demonstration catchment – Palauan communities learn best when they learn from each other. By showcasing positive benefits from implementation of land use plans, this should create momentum.
Natural or Human disasters exacerbated by Climate Change delay or hinder implementation of project	*Likelihood:* High *Impact:* Medium	Given recent trends, it is likely that Palau will experience a Typhoon or associated Natural Disaster during the period of project implementation. Part of the mitigation strategy comes from the diverse nature of the project design. PAN Sites include marine and terrestrial sites, ensuring continued work in some sites, and there are many other sites that can be the focus of moved PAN projects. SLM and Institutional Management must continue regardless of disasters. In the event of a disaster Palau will implement its Disaster Risk

Risk	Assessment	Risk Mitigation Strategy
components		Management Strategy, which includes procedures for modifying project planning and assessment within government departments. Together with UNEP, Palau will follow standard procedures for modifying the timetable and financing of the project in the event of a Typhoon that hinders progress of the project.

3.6 Consistency with national priorities or plans

230. This project directly implements the SLM Policy, which has been endorsed at the national level. It also implements the PAN, which is a national priority.
231. The project will directly address five of the eight strategic themes of the Palau NBSAP. Themes addressed are: 1) Effective and inclusive protected areas; 2) Conserved and/or restored biodiversity (species level); 3) Reductions in IAS; 4) Environmentally sustainable economic development; and 5) Increased integration and awareness of biodiversity in government and community actions.
232. In regards to reduction of IAS the project also will be guided by the National Invasive Species Policy, Strategy and Action Plan, local level IAS management plans and biosecurity plans, a broad and comprehensive body of work that exists in Palau on IAS, and the regional Micronesia Biosecurity Plan
233. The project will implement several aspects of the National Implementation Strategy from the First Communication to the Convention on Climate Change, namely: 1) Integration of climate change mitigation and adaptation into processes and plans; 2) Capacity building to understand and implement climate change science and activities; and 3) Effective management of carbon sinks.
234. This project implements all nine priority strategies in Palau's National Action Program to Combat Land Degradation, which includes strengthening or enhancing capacities and coordination, and comprehensive and inclusive planning. This project will also align with and feed into a proposed GEF 6 Project entitled "Mainstreaming global environmental priorities into national policies and programmes" that is under development with UNDP. The proposed GEF 6 Project specifically addresses improvements to dataset availability and utility to decision-makers. This GEF 5 Project will improve the data going into datasets from improved METT and evaluation of conservation strategies.
235. The project will contribute to implementation of the following plans and strategies (some finalized and endorsed, other still in draft form): State Conservation Action Plans, State Master and Land Use Plans, specific agency Strategic Plans (MNRET, Bureaus/Divisions of Agriculture, Forestry, and Marine Resources), the Disaster Risk Management Framework, the Energy Policy, Palau National Aquaculture Strategy, the Water Policy, the Food Security Policy, National Action Program (UNCCD), Micronesia Challenge Communications Strategy, the Sustainable Land Management Policy, the National Forest Strategy, Palau's draft Forest Policy, the Forestry Health Program Strategic Action Plan, the National Program for Monitoring Forest and Coastal Birds, and the Palau National Master Development Plan.

3.7 Incremental cost reasoning

236. Section 2.6 detailed the Business-As-Usual and Proposed Alternative Scenarios for this project and a detailed table with incremental differences based on investment is

included in Appendix 3. A summary of global and incremental benefits that are to be achieved with GEF investment includes:

(a) Filling gaps in PAN such that additional protected areas are included, above and beyond those promoted by the local communities, such that national and global level biodiversity benefits are realized (such as climate change resilience, site connectivity, endemic species representation, and species recovery).

(b) Contribution of new scientific data and information on island-wide networks, taxonomy, and METT, such that local tools are scalable at regional levels.

(c) Further enable Palau (at the national level) and the Micronesia Challenge (at the regional/international level) to meet the agreed goals of 30/20% conservation.

(d) Building momentum, tools, and processes for SLM and particularly land use planning that are scalable from watershed to state and applicable to other SIDS.

(e) Reducing erosion and water resource degradation at the local level, with national biodiversity and economic benefits.

(f) Reductions in habitat loss and increases in reforestation and rehabilitation with global GHG benefits. The estimated carbon benefit of the project is the additional sequestration of 141,867 tonnes of CO_2 per year.

(g) Improved species conservation status for at least 2 species (biodiversity benefits at all levels).

(h) Increased local resilience to climate change through adaptation and sharing of lessons learned and Best Practices regionally and globally.

237. In summary, the GEF Alternative will expand protected area extent and achieve faster and more effective conservation of protected areas, both on site and by taking steps to minimize indirect impacts; create momentum for SLM by expanding plans to 4 new states; reduce impacts from tourism development; address cross-sector issues in a streamlined, standardized manner; increase capacity and create formal mechanisms for mainstreaming cross-sector issues into local and national level plans and policies; reduce waste from redundancies; and deliver global biodiversity benefits faster than in the baseline scenario; and strengthen systems and processes Palau so that Palau can fully capitalize on the gains made in to its Micronesia Challenge Endowment Fund, such that sustainable financing is sufficient to maintain momentum on improving environmental management.

3.8 Sustainability

238. This project is a short-term investment to build long-term solutions and eventual sustainability. Much of the project is coordinated planning for the long-term, with feedback loops for evaluation and adaptation. The inclusion of sustainable financing mechanisms for PAN and SLM levels and the focus on income generating sectors is part of the design for sustainability, building Financial Sustainability.

239. It is anticipated that by the end of the project period financing from the Green Fee and MC Endowment will adequately cover advancements made to PAN sites. During the project period SLM will develop fees as part of its sustainable finance plan.

240. The goal of the project is to improve livelihoods while protecting biodiversity, thus sustainable use of natural resources is at the heart of the project. This is why there is a heavy investment in METT as an essential component in the feedback loop. Information sharing is also part of this loop. Investment in awareness and capacity building will enhance local support for PAN sites and SLM. This builds Environmental and Social Sustainability.
241. The history of conservation in Palau is that once something builds momentum and has a clear and transparent process it is often sustainable. Thus management planning for PAN sites started slowly, but once it built momentum and attracted attention, every state with a PAN site developed a management plan (albeit with gaps). Similarly, when the informal Palau Conservation Consortium started it was slow, but had a clear structure (individuals) and transparent organization (voluntary association open to all environmental organizations). Thus the group built momentum and is still going strong. This project will create the clear and transparent processes and structures necessary for coordination of PAN, SLM, and national-level cross-sector linkages and will invest in the early years of coordination to build momentum. Once established and the benefits of coordination are evident (by project end), the project design should be sustainable for the long-term. Further, this project includes several legislative outputs that will formalize new policies and relationships. Together this will build Institutional Sustainability.

Country Ownership: Country Eligibility and Country Driven-ness

242. This project has strong country ownership. Palau is eligible as it is signatory to the CBD, CCD, and UNFCCC and has shown commitment to observing the conventions and contributing to them to protect biodiversity values. Palau has successfully implemented small grants and medium-sized GEF projects and shown leadership while participating in Full Scale Projects funded by the GEF such as the Micronesia Challenge. As a nation, Palau has seen both top-down and bottom-up prioritization of environmental conservation. At the level of the President's Office, numerous conservation initiatives have been championed and encouraged at state and local levels. At the community level, there has been a push for traditional conservation as well as a desire for sustainable growth using modern practices. These are codified in numerous local laws and resolutions from elected and traditional leadership. Resoure managers in government and non-profit agencies throughout the environment sector seek to implement and improve both top-down and bottom-up initiatives. This is true in this project, which includes both local level and national level actions. The development of this project came through intensive consultations with all of the stakeholders in Table 4, meaning that input came from all levels of government and from all sectors of society.
243. The activities in this Project are based on national priorities and would be implemented without GEF funding, but in a piecemeal fashion over a much longer time (and without resolving issues of gaps). The process of developing this project has taken multiple years because it has included many rounds of stakeholder consultations and direct involvement, but has been driven entirely by local organizations with technical assistance provided by UNEP. This project builds on numerous past assessments and national and individual agency strategies that have

identified conservation priorities and barriers and gaps at the local and national levels. Even these past assessments and strategy development processes have always included a participatory approach by multiple sectors of Palauan society, also while taking advantage of outside technical expertise. Through the multi-year process to develop this GEF 5 Project, this wide variety of assessments, strategies, gap analyses, and capacity assessments have been consulted and presented to the stakeholders. **Appendix 14** includes many of the assessments, strategies, and participatory documents that were used in the participatory process of deciding on activities for this Project and drafting this Project Document.

3.9 Replication

244. This project is itself scaled and thus it is scalable. It starts at the local site level, moves to the watershed and state level, and then realized national level coordination and benefits. The models developed here will be replicable in other SIDS. Palau has a history of inspiring replication, being among the first in the region to establish a marine protected area in 1956 and issuing forth the challenge that became the Micronesia Challenge. The Micronesia Challenge has been replicated in the Caribbean and Indian Ocean.
245. Information sharing is built into the design to drive replication, with particular emphasis on developing METT, protocols, findings, and results that are broadly applicable. As it has been so far, Palau expects to contribute its country-specific METT to the Micronesia Challenge indicators.

3.10 Public awareness, communications, and mainstreaming strategy

246. In essence this project is one of mainstreaming environmental knowledge and values at all geographic scales into all levels of governance. Each activity is designed to increase available information, create mechanisms for sharing and use of that information, and encourage best practices. General and targeted public outreach and awareness activities are essential to the objective and are included in each of the three components and thus have expected results and deliverables. Components 2 and 3 have specific mechanisms for mainstreaming the results and information produced from this project into long-term development plans. Component 3 also includes specific mechanisms to coordinate communication.

3.11 Project beneficiaries and environmental and social safeguards

247. The primary beneficiaries are Palauan individuals and families who rely on natural resources for their livelihood and cultural identity. Other beneficiaries will include the implementers of these conservation initiatives, who will receive a major boost through sustained financing and intense capacity building. Other beneficiaries include local governments, who will benefit from financing and streamlining of plans. The Micronesia Challenge and its stakeholders will also benefit by Palau's contribution to the 30/20% goal. Other countries participating in the Ridges to Reef programme will also benefit from lessons learned from the Palau experience. This project will assist disadvantaged groups, particularly: 1) Women living in outlying states (non-Koror) who farm for cultural and economic purposes (all socioeconomic levels), 2) Men and Women (particularly in outlying states) who achieve their primary economic

subsistence through fishing, 3) Young men in outlying states with minimal education and few economic opportunities (who will find employment within PAN), 4) Foreign workers who farm, and 5) Both men and women in outlying states with few economic opportunities (who will find employment through new tourism). Safeguards will be maintained to ensure that Foreign workers involved in the tourism and farming sectors are not negatively impacted by the project. A full gender analysis was not conducted as part of the development of this project; however the 2014 National Review on implementation of the Beijing Declaration and Platform for Action was comprehensive in its identification of the needs of women. These needs have been accounted for here. The participatory process of project development and the multi-stakeholder design of the Management Arrangement further acts as a safeguard to ensure that marginalized populations are considered.

248. The project approach will address environmental and social safeguards by adopting a highly consultative approach in decision making at all stages of project planning and implementation. This practice has already been established during the design of the project (PIF/PPG). The local participatory approach has also taken into consideration global considerations such as the Millennium Development Goals (MDG), which includes streamlined climate change and disaster risk management. This project is aligned with the Palau Climate Change Policy for Climate and Disaster Resilient Low Emissions Development 2015, which explicitly considers MDGs. This project contributes directly to the United Nations Development Assistance Framework (UNDAF) Results Matrix for Palau for several outcomes:
    - Outcome 1.1 – Sustainable management of natural resources; climate change adaptation and mitigation. Indicator: Percentage of Terrestrial and Marine Areas protected (from baseline of 4.8% to 35% nearshore marine and 20% terrestrial)
    - Output 1.1.1 - 4 pilot initiatives to support biodiversity conservation and water resource management (combined outcome from PAN and SLM component)
    - Output 1.1.2 – At least 1 gender inclusive climate change adaptation and mitigation measure in Melekeok (benefitting farmers in Palau who are often Palauan women or foreign men).
    - Outcome 3.1 – Inclusive Economic Growth and Incorporated Food Security. This project will contribute to several poverty indicators by increasing employment and capacity within the conservation sector. Capacity growth at PAN sites will likely benefit marginalized young men, who often cannot find jobs and are often part of the driving force behind threats to sites. The minimum of 4 pilot sites for the SLM component will create best practices for farming, which will contribute to food security in those sites and be scalable to other locations. In terms of employment, benefits to the farming sector will largely benefit women, who make up the majority of farmers (e.g. taro and small gardens). These will contribute to Output 3.1.3.
    - Outcome 5.1 – Good governance. Component 3 will create a model for good governance through a participatory and inclusive process.

    Gender equity will be addressed with guidance taken from the Pacific United Nations Development Assistance Framework (UNDAF) Gender Equality Score Card; however,

Palau's UNDAF Results Matrix Outcome 2 activities (focused on gender equality) are specific to issues of gender violence and thus not applicable to this project. However, a document for the Pacific sub-region released in May 2009 describing the Score Card for the Pacific UNDAF will be used as a model to guide the design of sub-projects as they evolve by using the score card itself as a template and the results to indicate lessons learnt from the Pacific to date. UN Women (Fiji office) may be consulted for further guidance on ensuring gender equity during the project. OERC, the EA for this project, is also the liaison for the annual UNDAF Monitoring Visits, and thus will use these annual opportunities as a time to seek assistance on reporting and hare progress on the UNDAF and MDGs. Palau will also seek assistance from and share reports with the UNEP/UNDP Joint Presence Office that is in Palau. Further, Palau is a partner to a new GEF5-SPREP Project that will improve environmental reporting to the MEAs and on the MDGs. OERC is the liaison for that project as well, thus there will be natural information flow between the two projects.

249. The implementation of new protected areas will require social and environmental safeguards. These are essential to ensure that protection measures do not disenfranchise; do not exclude customary access and full community participation; do not discriminate against social groups; and do provide equitable social and environmental benefits (including fair access and benefit sharing of genetic resources) as a result of conservation actions. Local community support is critical for establishment of new protected areas; stakeholder consultations of key groups will occur before any legislation is introduced. During setup of the institutional arrangements, one of the Component Project Managers (likely PCS) will need to agree to take on a watch-dog role and ensure compliance with the Score Card. The agency taking on the watch-dog role will also consider issues of Access and Benefit-Sharing of genetic resources during the yearly evaluations (as relates to UNEP and GEF reporting) and as new, relevant information is produced and shared globally.
250. Ensuring environmental safeguards during implementation of effective conservation and particularly during SLM Policy implementation and cross-sector interventions may be necessary given the likely conflicting nature of objectives. Examples of conflicting and competing objectives have been noted throughout, with particular emphasis on agencies promoting use of non-native species for food security in SLM and agencies promoting non-native biodiversity within or near PAN sites. A specific strategy for handling situations with competing objectives where trade-offs are inevitable will be finalized during Project Inception. However, a suggested strategy is the following:
    (a) As new documents are finalized, they are sent to OERC for a Coordination Review. OERC staff will review the document against Best Practices, SLM policy guidelines, and PAN documents to identify gaps, redundancies, areas of conflict, identify any competing objectives, and to check for environmental and social safeguards.
    (b) OERC may return documents to the originating agencies with comment, or may bring competing objectives to the respective coordinating bodies for resolution.

SECTION 4: INSTITUTIONAL FRAMEWORK AND IMPLEMENTATION ARRANGEMENTS

Project Oversight

251. UNEP, as the GEF Implementing Agency, through its Division of Environmental Policy Implementation and its out-posted task manager in the UNEP Pacific sub-regional office will providethe overall supervision and guidance for the Project including approval of key Project activities, funding commitments, and co-financing arrangements. This will include responsibility for, in conjunction with the various project partners and especially the GEF 5 Project Steering Committee, aspects of monitoring and evaluation, including organizing project reviews, approving annual implementation work plans and any needed budget revisions, monitoring progress, and identifying problems and actions to improve the Project. They will also assist in providing linkages with other regional and global initiatives (including related UNEP programmes and the Ridges to Reef programme) and to the portfolio of UNEP-related work on Protected Areas (such as management and monitoring) and Sustainable Land Management. All monitoring and evaluation functions will be carried out in line with standard procedures of UNEP-GEF.
252. The Executing Agency will be the Office of Environmental Response and Coordination (OERC) under the Office of the President. In this role OERC will manage the project including the midterm and final review (financial and progress), facilitate information sharing and coordination (including membership to committees and coordinating bodies) and share information and lessons learned on cross-sector issues with the Ridge to Reef Programme and the Micronesia Challenge, and other international projects (such as the PACC programme through SPREP/UNDP).
253. For execution of this project, following precedents established in previous projects, there will be established a multi-partner GEF 5 Steering Committee to guide project decisions, oversee implementation, and conduct reporting and evaluation. OERC will offer a number of competitive and noncompetitive contracts/consultancies to qualified individuals and organizations. The GEF 5 Steering Committee will be comprised of the National Environmental Protection Council (NEPC), which is mandated by Executive Order to coordinate national environmental actions and which serves as Steering Committees for other GEF and regionally-funded projects. NEPC consists of decision-makers from all major government, semi-government, and nonprofit sectors, with representatives from business and communities as well. NEPC Membership already includes the PMU, who will act in relation to their role in this project: 1) OERC (Executive and Component 3 Manager), 2) PAN Office (Component 1 Manager), 3) MNRET (Office of the Minister; Component 2 Co-Manager), 4) PCS (Component 2 Co-Project Manager), and 5) EQPB (as R2R Liaison). The GEF 5 Project Steering Committee shall also have a UNEP representative and at least one representative each acting on behalf of the PAN Management Committee and the SLM Coordinating Body. The PAN Management Committee consists of community representatives from states in the PAN with an associated group of technical advisors. The SLM Coordinating Body will include wide representation from states and business sectors. The larger GEF 5 Steering Committee itself will thus have wide representation from all sectors. A smaller Project Management Unit (PMU) consisting of OERC, PCS, PAN Office, MNRET, and EQPB will meet more regularly. EQPB will be a

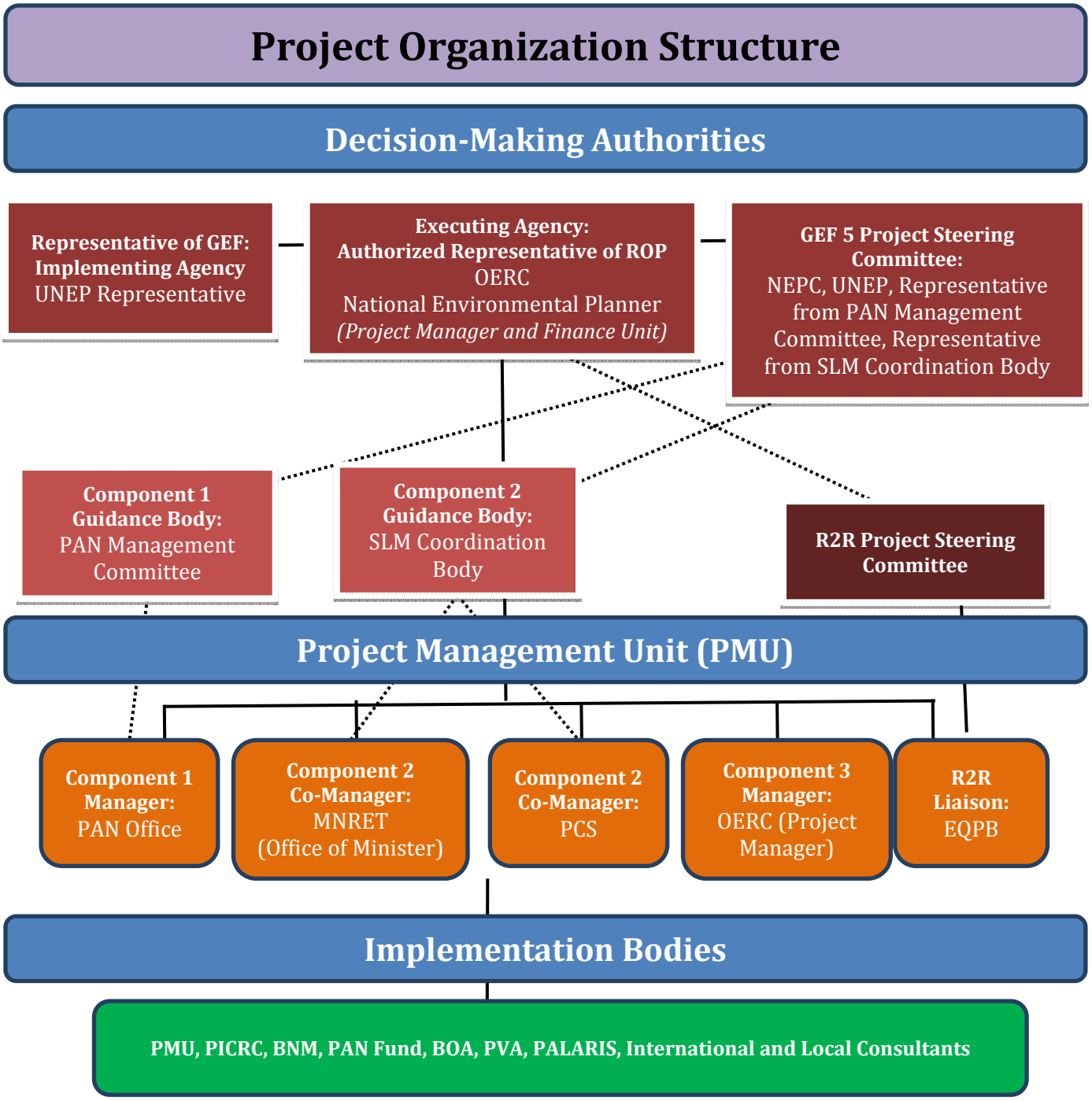
member of the PMU both as a major contractor under Component 3 and as liaison with the R2R Programme.

254. At least one staff (minimum ***Project Manager***) will be hired and placed within OERC to oversee day to day execution of the project and implement coordination activities. This person will also be the ***Component 3 Manager***. The Project Manager will answer to the head of OERC, the National Environmental Planner, who will have overall responsibility for implementation of the project.

Project Management at the Site Level

255. The PAN Office under MNRET will be ***Component 1 Manager***. MNRET and OERC will also work to ensure that the PAN Management Committee is established as the steering committee for this component. This committee should include representatives from every state with a PAN site.
256. MNRET and PCS will share project management duties for Component 2 and thus will be ***Component 2 Co-Managers***. They will lead establishment of a National SLM Coordination Body and Mechanism.
257. Together the Component Managers (1, 2, 3), the Project Manager, and the National Environmental Planner will form the PMU. The PMU represents a core group of individuals from the PAN Office, PCS, and MNRET's Office of the Minister with close working ties to the project. The PMU is different from the GEF 5 Project Steering Committee (SC), which is a larger body of stakeholders with interests in the progress and outcomes of the project. OERC will act as both Executing Agency with decisionmaking authority, and as a Component Manager (and thus a member of the PMU) with implementing responsibilities. Different individuals at OERC will oversee those responsibilities, with the Project Manager overseeing implementation and Palau's National Environmental Planner (head of OERC) holding decisionmaking authority. This system ensures consensus among a broad group of stakeholders while still ensuring functionality of the management unit; at the individual level it also separates implementation from decisionmaking functions to minimize conflicts of interests.
258. **Figure 1** shows the reporting and coordination structure of the project.

Figure 1. Organogram of Management Arrangements



SECTION 5: STAKEHOLDER PARTICIPATION

259. Stakeholders will participate in the project in a number of direct and indirect ways. In addition to the Component 1 and 2 Project Managers (based at PCS, MNRET, and PAN Office), several stakeholders will receive direct subcontracts to carry out activities, including:
    (a) PICRC and BNM, for developing biological and socioeconomic METT for marine and terrestrial systems, as well as testing, implementation, analysis, training, sharing, and communications
    (b) PAN Office and PCS, for leading plan development at the national and state levels (PAN, SLM, state PAN-site management plans, state SLM plans)
    (c) PAN Fund, for research and development of sustainable financing plans
    (d) BOA, for developing SFM guidelines
    (e) PVA and BOT, for designing sustainable tourism plans
    (f) EQPB, for updating regulations upon mandate review. EQPB will also serve as the liaison to the IWRM and R2R Projects, thus serving as both a member of this GEF 5 Project Steering Committee and the R2R Project Steering Committee.
    (g) PALARIS, for mapping services
260. Stakeholders will participate in the GEF 5 Project Steering Committee and associated PAN Management Committee and SLM Coordinating Body. A UNEP representative will also be a member of the GEF 5 Project Steering Committee.
261. Many stakeholders will be the recipients of direct assistance (such as states receiving assistance with PAN and SLM plans). Individuals will participate in training and workshops.

SECTION 6: MONITORING AND EVALUATION PLAN

262. The project will follow UNEP-GEF standard monitoring, reporting, and evaluation processes and procedures. Substantive and financial project reporting requirements are summarized in **Appendix 8**. Reporting requirements and templates are an integral part of the UNEP legal instrument (Project Cooperation Agreement) to be signed by the executing agency and UNEP.
263. The project Monitoring and Evaluation (M&E) plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework presented in **Appendix 4** includes SMART indicators for each expected outcome as well as mid-term and end-of-project targets (which will in turn be represented in the comprehensive METT). These indicators, along with the Key Deliverables and Benchmarks included in **Appendix 6**, will be the main tools for assessing project implementation progress and whether project results are being achieved. The means of verification for tracking the indicators are summarized in the Project Results Framework (Appendix 4). Other M&E related costs are also presented in the Costed M&E Plan (**Appendix 7**) and are fully integrated in the overall project budget. Expected deliverables from Palau under the R2R Program have been incorporated into the Results Framework and Key Deliverables and Benchmarks and thus will be assessed as part of annual reviews in the M&E Plan. The mechanism to ensure this alignment is to have EQPB continue its liaison role between IWRM and other

programs, and thus take on the role of liaison between this GEF 5 Project and the R2R Project.

264. The M&E plan will be reviewed and revised as necessary during the project inception workshop to ensure project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. Indicators and their means of verification (MOVs) may also be fine-tuned at the inception workshop; targets and existing MOVs will be identified during the inception phase prior to the workshop. Day-to-day project monitoring is the responsibility of the Executing Agency but other project partners will have responsibilities to collect specific information to track the indicators. It is the responsibility of the Executing Agency to inform UNEP of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.
265. In addition to helping to resolve conflicts between agencies as part of Palau's new cross-sector coordination effort, the GEF 5 Project Steering Committee will receive periodic reports on progress, provide project and technical advice, and will make recommendations (conveyed to UNEP via the Executing Agency) concerning the need to revise any aspects of the Results Framework or the M&E plan. Project oversight to ensure that the project meets UNEP and GEF policies and procedures is the responsibility of the ***Task Manager*** in UNEP-GEF. The Task Manager will also review the quality of draft project outputs, provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.
266. At the time of project approval some baseline data are available. Baseline data gaps will be addressed during the first year of project implementation, with many targeted for development during the Inception Phase. This project includes a list of information needed at the Inception Workshop and a plan for gathering that information. Project supervision will take an adaptive management approach. The Task Manager will develop a project supervision plan at the inception of the project which will be presented to and discussed and agreed with the project partners during the Inception Workshop. The emphasis of Task Manager supervision will be on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress vis-à-vis delivering the agreed project global environmental benefits will be assessed with the PMU and GEF 5 Steering Committee at agreed intervals. Project risks and assumptions will be regularly monitored both by project partners and UNEP. Risk assessment and rating is an integral part of the annual Project Implementation Review (PIR) report, to be prepared by the project manager and UNEP Task Manager for the UNEP-GEF. The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.
267. A mid-term management review (MTR) or evaluation will take place halfway through project implementation, implemented by the Task Manager. The review will include all parameters recommended by the GEF Evaluation Office for evaluation and will verify information gathered through the GEF tracking tools, as relevant. The review will be carried out using a participatory approach whereby parties that may benefit or be affected by the project will be consulted. Such parties were identified during the stakeholder analysis. The GEF 5 Project Steering Committee will participate in the

mid-term review and develop a management response to the evaluation recommendations along with an implementation plan. It is the responsibility of the UNEP Task Manager in collaboration with the PMU to monitor whether the agreed recommendations are being implemented.

268. An independent terminal evaluation will take place at the end of project implementation. The ***Evaluation Office*** (EO) of UNEP will manage the terminal evaluation process. A review of the quality of the evaluation report will be done by the EO and submitted along with the report to the GEF Evaluation Office not later than 6 months after the completion of the evaluation. The current standard terms of reference for the terminal evaluation are provided by UNEP's Evaluation Office at the start of the process. These will be adjusted to the special needs of the project.
269. The GEF tracking tools will be used during evaluation. These will be updated at mid-term and at the end of the project and will be made available to the GEF Secretariat along with the project PIR report. As mentioned above the mid-term and terminal evaluation will verify the information of the tracking tool.
270. Financial monitoring will be to a high standard. The Office of Environmental Response and Coordination (OERC) will be the grant recipient and project Executing Agency. OERC will maintain close accounting of project investments and will require progress reports and other evaluation tools from project implementers. OERC will contract auditors following the Palau government's standard system of objective selection of vendors. The Project budget includes dedicated funds for yearly audits.

Monitoring and reporting

271. A Logical Framework Matrix (Results Table) with performance/impact indicators for project implementation along with their corresponding means of verification, specific targets and corresponding time-bounds are provided in Appendix 4 and will be revised and further developed in the project inception phase. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction. These will form the basis on which the project's Monitoring and Evaluation Plan (M&E plan) and Annual/Quarterly work-plans will be developed.
272. The following sections outline the principal components of the M&E Plan. The project's M&E Plan will be presented and finalized in the Project's Inception Report following collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities. Alignment with R2 R requirements will be verified with the SOPAC/SPC (as EA for the R2R programme). **Appendix 8** summarizes reporting requirements.

Project Inception Phase

273. The objectives of the inception phase are to: review and update the project's log-frame matrix, based on which the implementation plan and budget for project will be updated, review and finalize the monitoring and evaluation plan, review and clarify all TORs for project management and implementation arrangements, and identify and provide the information needed by the Inception Workshop. The smaller subset of the GEF 5 Steering Committee consisting of the Executing Agency and Component Project Managers (PCS, PAN Office, MNRET, and Component 3 Contractors) make up the Project Management Unit (PMU). This phase will start immediately after signing of the

project document and will last about 3 months. During this phase all operational activities for starting up the PMU will be carried out.

274. Numerous baseline values will be established during Project Inception, including:

(a) Gender equality scores
(b) Assess gender mainstreaming into policies
(c) Existing revenue generation (PAN sites, SLM, Tourism)
(d) Local monitoring capacity
(e) Agree and establish baseline values for all indicator targets (Threats, Spatial range of biodiversity (including location of known populations), Population size, Biophysical/chemical, Socioeconomic), where existing METT allows
(f) PAN awareness (%stakeholders exposed to PAN), support, and number of people active in PAN
(g) Indicators for SFM, Tourism, Violations (particularly for Outcome 2.2)

275. Additional, specific activities that will occur during Project Inception include:

(a) Agree on "watchdog" for environmental and social safeguards (particularly ensuring consultative processes and gender mainstreaming)
(b) Agree on process and timetable for reviewing and aligning PAN, SLM, and cross-sector documents
(c) Finalize and agree on a method to streamline and address conflicts between PAN, SLM, and Cross-sector issues
(d) Hiring and identification of members of the PMU (including cross-sector contractors)
(e) Select and agree on states targeted for Community Outreach and all other outcomes with undecided locations.
(f) Determine methodology for assessing "capacity," whether based on a Palau-generated METT or using a standard UNEP-GEF Scorecard.
(g) Assign responsibility for collecting and tracking each Means of Verification, and any other data or information to be discussed at the Inception Workshop, to partners participating in project, including identifying areas where expertise is necessary and contracting experts for baseline and ongoing analysis. (This will include a step to develop a checklist of MOVs and the responsible PMU Project Manager and partner organizations/ consultants).
(h) Determine Technical Reports (8) and Program Publications (4) and associated partner-authors to target (to meet the M&E plan).

276. A **Project Inception Workshop** (PIW) will be organized at the end of the inception phase with the PMU, full GEF 5 Steering Committee, relevant government counterparts, local implementing agencies, co-financing partners, the UNEP project coordinator and representation from the UNEP/GEF as appropriate. A fundamental objective of this Inception Workshop will be to present and discuss the updated log-frame matrix, implementation work-plan and budget, monitoring plan, and roles and functions of all partners, and detailed first annual work-plan. Any additional baseline values for the METT and MOVs will be agreed at the Inception Workshop, although the work to identify and research those values will be conducted during the Inception Phase. The baseline values in the GEF METT (those in the "Tracking Tool for

Biodiversity Projects in GEF-3, GEF-4, and GEF-5 Excel Table and submitted to GEF upon submission of this Project Document) will be reviewed. By agreeing together on targeted outcomes (e.g. IAS and targeted locations), the Inception Workshop will be an important opportunity to cement local ownership of the project and its outcomes. This project builds upon a broad and rich body of work in the field and in policy. The inception phase will be used to identify and catalog that information, so that the PIW is focused on agreement of targets.

Monitoring responsibilities

277. Day to day monitoring of implementation progress will be the responsibility of the Executing Agency and reported to the GEF 5 Steering Committee based on the project's Annual and Quarterly Work plans and their indicators. The Executing Agency will inform the UNEP Task Manager (through the project's progress reports and/or ad hoc communication) of any delays or difficulties faced during implementation so the appropriate support or corrective measures can be adopted in a timely fashion.
278. Periodic monitoring of implementation progress will be jointly assessed at the quarterly meetings and through quarterly reports between the Executing Agency and UNEP. The Executing Agency will also frequently meet with the PMU and other implementing partners and sub-contractors. These will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities. These will also allow the Executing Agency to prepare and finalize a work-plan for the next quarter and finalize the reports for the current quarter for submission to UNEP. Minutes will be prepared after each meeting, cleared by the Executing Agency and sent to the GEF 5 Steering Committee and UNEP.
279. UNEP / GEF, as appropriate, will conduct visits to project sites yearly or more often based on an agreed upon schedule to be detailed in the project's Inception Report/ Annual Workplan, to assess project progress first-hand. A Field Visit Report will be prepared by the UNEP and circulated no less than one month after the visit to the PMU, all GEF 5 Steering Committee members, and the UNEP/GEF. Annual Monitoring will be done through an annual GEF Project Implementation Report (PIR). The PIR is designed to obtain the independent view of the main stakeholders of a project on its relevance, performance, and likelihood of its success. The PIR will be used as one of the basic documents for discussions in GEF 5 Steering Committee meetings.
280. Annual GEF 5 Project Steering Committee (SC) Meeting: the SC meeting is a policy-level meeting of the parties directly involved in a program or project. It aims to: (i) assess the progress of the project based on the PIR and other relevant reports, including endorsing the prior year's report and modifying or approving the upcoming year's workplan; and (ii) to make decisions on recommendations to improve the design and implementation of the project to achieve the expected results, and (iii) to assist with cross-sector conflicts. The SC meeting must be held at least once a year, but are scheduled at least every six months due to the role of the SC in resolving cross-sector conflicts. SC meetings may be held more frequently during the year. The Executing Agency is responsible for preparing the SC meetings and circulating relevant documents to the PMU, GEF 5 Steering Committee, UNEP and other members of project SC at least two weeks before the meeting, for review and comment. A UNEP

representative will serve on the SC to ensure alignment with GEF requirements for all submitted reports and proposed changes to the annual workplans.

281. Project Reporting: The Executing Agency will be responsible for the preparation and submission of the following reports throughout implementation:

(a) Inception Report
(b) Annual Project Reports (APR)
(c) Quarterly Project Reports (e.g. expenditure) according to UNEP formats;
(d) Project Implementation Reviews (PIR);
(e) Project Terminal Report; and
(f) Project Publications and technical reports

282. These reports must be completed and submitted to UNEP and GEF according to the schedule set out in Appendix 8 or upon request by UNEP or the GEF 5 Project Steering Committee. All Cash Advance Requests will follow typical precedures and will be dependent on timely completion of project reporting.

Independent Evaluations

283. The project will be subjected to at least two independent external evaluations as follows:

(a) Mid-term Evaluation. An independent Mid-Term Evaluation will be undertaken at the end of the second year of implementation. The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency, and timeliness of project implementation; highlight issues requiring decisions and actions; and present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNEP EO and Task Manager based on the standard GEF guidelines.

(b) Terminal Evaluation. An independent Terminal Evaluation will take place three months prior to the terminal review meeting, and will focus on the same issues as the mid-term evaluation. The terminal evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Terminal Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this terminal evaluation will be prepared by the UNEP EO and Task Manager based on guidance from the GEF. Standard TORs for Terminal Evaluations are provided at the time of evaluation.

Financial Auditing

284. The project is subject to external audit once a year, which is included in the Project budget The GEF 5 Steering Committee will review the audit report in draft form and

make comments. The final audit report will be submitted to all parties concerned including the UNEP. The Executing Agency must ensure that actions are taken to correct adverse audit findings.

285. Independent auditors will be contracted to carry out annual external financial audits of OERC accounts and activities in accordance with generally accepted accounting principles including International Financial Reporting Standards to be advised by the UNEP at the time. As a government agency, OERC will follow standard government procedures for soliciting an auditor (including bids) and following standard audit protocols. The audit for OERC would provide an opinion regarding the overall financial health of the institution. The audit report would also provide a separate opinion regarding accounts for the central coordination program, supporting documentation received by OERC for funds spent, and OERC financial statements. A management report would also be included, with analysis regarding overall financial management, control, and effectiveness.
286. An independent annual audit of the asset manager will also be conducted. This audit would focus on investment management performance relative to benchmarks as defined in the investment policy guidelines, and would also include a management report. Within four months of the close of each fiscal year, the results of financial audits would be made available.

SECTION 7: PROJECT FINANCING AND BUDGET

7.1 Overall Project Budget

287. The overall project budget is presented in detail in **Appendix 1** and **Appendix 2**. A breakdown by output and activity is presented in **Table 9**. The cost to the GEF Trust Fund for funds spent in country will be $3,747,706.

Table 9. Overall Project Budget and Co-finance by Outcome, Output, and Activity

	GEFTF	Co-financing	Total
Componnet 1	2,139,344	9,900,000	**12,039,344**
Componnet 2	858,400	4,250,000	**5,108,400**
Componnet 3	571,500	1,450,000	**2,021,500**
Sub-total	***3,569,244***	***15,600,000***	***19,169,244***
Management	178,462	200,000	**378,462**
TOTAL	**3,747,706**	**15,800,000**	**19,547,706**

7.2 Project co-financing and financial capacity to implement

288. Total co-financing is $15,800,000. Table 9 includes co-financing by activity and output. The co-financing committed for the project includes that from national and state governments, nongovernmental partners, and UNEP, as summarized by letters of commitment. In-kind and in cash contributions will be further defined. The PAN is expected to provide $4,000,000 in cash co-financing towards project activities, paid directly to state governments.

289. Palau's government, individual agencies, and nongovernmental partners have successfully implemented projects of this size, budget, and complex nature. This includes GEF projects and projects funded by governments and donor Foundations. The list of projects awarded to Palau's agencies that accounted for US$1,000,000 or more is long, including such projects as the GEF-funded SLM Initiative, the PACC Project, and the IWRM project. Palau's Green Fee itself brings in over $1 million per year in funds, which are shared throughout. There are accountability and accounting procedures in place to ensure that funds are used as planned. It is noted that the environment sector – which influences the tourism sector – plays a large role in Palau's $247 million GDP, thus the country has the capacity to absorb an additional $1 million in funding in this sector. Large projects in the past have consistently been cross-sector and have involved participation by many partners, which is consistent with the design of this project. It is also noted that Palau's per capita income is higher than many other developing nations and transportation and supply costs are higher than in other, larger non-island nations. Thus the costs of this project are deemed necessary and appropriate. The Executing Agency, OERC, has been the channel for GEF Funds into Palau since its inception and as such has successfully managed these large-scale budgets. OERC operates by outsourcing activities to implementing agencies. This allows it to take a coordination role and oversee multiple large-scale projects at once. This project will enable the hire of a dedicated person (Component 3 Manager: OERC / Project Manager) as listed in the Project Organogram, which will further build the capacity of the EA to implement a project of this scale.

7.3 Cost-effectiveness

290. Multiple years of planning for this full-sized project have led to the absolute minimum set of activities thought necessary to achieve the stated biodiversity benefits. Alternatives have been assessed and rejected. For instance, in Palau protected areas need comprehensive management planning because the strictest management regime (closure for science) would be impossible to enforce and culturally unacceptable. The project includes both protected areas and land outside protected areas, thus there are few alternatives in regime possible. The sites selected have all made progress and are starting from a point far along the conservation pathway, thus reducing the need for startup costs at new sites.
291. The project builds cost-efficiency into its design by investing in coordination that will identify and reduce redundancies and waste.
292. Palau has already invested much towards realization of global biodiversity benefits; in essence this project takes Palau to one of the last steps towards a sustainable planning and financing regime.
293. The project prioritizes prevention over the more expensive rehabilitation and focuses on climate change adaptation rather than the more expensive and harder to achieve mitigation.
294. Science contributions from this project will have global significance far beyond their local purpose.

APPENDICES

APPENDIX 1: Budget by project components and UNEP budget lines

Project title: Advancing sustainable resource management to improve livelihoods and protect biodiversity in Palau
Project number: 5208
Project executing partner: Office of Environmental Response and Coordination (OERC)
Project implementation period: 48 months
From: 1 January 2016
To: 31 December 2019

			Expenditure by project component/activity					Expenditure by calendar year				
UNEP Budget Line			Component 1	Component 2	Component 3	Component 4	Total	2016	2017	2018	2019	Total
10	PERSONNEL COMPONENT											
	1100	*Project Personnel*										
	1101	Project Manager (OERC)/Component 3 Manager	48,000	48,000	48,000		**144,000**	36,000	36,000	36,000	36,000	**144,000**
	1102	OERC Staff Training (individual)	4,000	4,000	2,000		**10,000**	10,000				**10,000**
	1199	*Sub-total*	*52,000*	*52,000*	*50,000*	*0*	*154,000*	*46,000*	*36,000*	*36,000*	*36,000*	*154,000*
	1200	*Consultants*										
	1201	College Curriculum Developer	50,000				**50,000**			35,000	15,000	**50,000**
	1202	Digital Mapping Expert	50,000				**50,000**	10,000	30,000	10,000		**50,000**
	1203	Ethnobotanical Researcher	30,000				**30,000**	5,000	20,000	5,000		**30,000**
	1204	Land Use Planner		200,000			**200,000**		100,000	100,000		**200,000**
	1205	Legal Consultant	60,000	7,500	7,500		**75,000**	25,000	10,000	30,000	10,000	**75,000**
	1206	Management Plan Developer	90,000				**90,000**	10,000	40,000	30,000	10,000	**90,000**
	1207	Primary School Curriculum Specialist	12,500	10,000	2,500		**25,000**			20,000	5,000	**25,000**
	1208	Species Specialist	13,000		7,000		**20,000**			15,000	5,000	**20,000**
	1209	Sustainable Financing Consultant	50,000	25,000			**75,000**	25,000	25,000	25,000		**75,000**
	1299	***Sub-total***	*355,500*	*242,500*	*17,000*	*0*	*615,000*	*75,000*	*225,000*	*270,000*	*45,000*	*615,000*

	1300	*Administrative Support*					**0**					
	1301	Administrative Assistant, OERC	8,344	3,500		9156	**21,000**	5,250	5,250	5,250	5,250	**21,000**
	1302	Accounting support				50000	**50,000**	12,500	12,500	12,500	12,500	**50,000**
	1303	Public relations/ communications				60000	**60,000**	15,000	15,000	15,000	15,000	**60,000**
	1304	Administrative support				19306	**19,306**	4,827	4,827	4,827	4,826	**19,306**
	1399	***Sub-total***	***8,344***	***3,500***	***0***	***0***	***138,462***	***150,306***	***37,577***	***37,577***	***37,577***	***37,576***	***150,306***
	1600	*Travel on official business*					**0**					
	1601	Travel to conferences	10,000	6,000		8,000		**24,000**	6,000	6,000	6,000	6,000	**24,000**
	1699	**Sub-total**	**10,000**	**6,000**		**8,000**	**0**	**24,000**	**6,000**	**6,000**	**6,000**	**6,000**	**24,000**
1999	**Personnel Component total**		**425,844**	**304,000**		**75,000**	**138,462**	**943,306**	**164,577**	**304,577**	**349,577**	**124,576**	**943,306**
20	**SUBCONTRACT COMPONENT**												
	2100	*Subcontracts (UN Organizations)*											**0**
	2101						**-**						**0**
	2199	*Sub-total*						-	-	-	-		**0**
	2200	*Subcontracts (Non-UN Organizations)*											
	2201	BNM	290,000				**290,000**	90,000	110,000	75,000	15,000		**290,000**
	2202	BOA		125,500	145,000		**270,500**	30,125	180,000	55,375	5,000		**270,500**
	2203	EQPB		45,000	145,000		**190,000**	50,000	125,000	10,000	5,000		**190,000**
	2204	Koror State	25,000	25,000			**50,000**	0	25,000	25,000	0		**50,000**
	2205	Melekeok State	25,000	25,000			**50,000**	0	25,000	25,000	0		**50,000**
	2206	MNRET	100,000	50,000	50,000		**200,000**	80,000	80,000	30,209	9,791		**200,000**
	2207	Ngarchelong State	25,000	25,000			**50,000**	0	25,000	25,000	0		**50,000**
	2208	PAN Fund	140,000				**140,000**	30,000	70,000	40,000	0		**140,000**
	2209	PAN Office	340,000	30,000	63,000		**433,000**	141,000	151,000	131,000	10,000		**433,000**
	2210	PCS	200,000	60,000	50,000		**310,000**	125,000	135,000	40,000	10,000		**310,000**
	2211	PICRC	540,000				**540,000**	167,918	183,708	168,374	20,000		**540,000**
	2212	BOT		150,000			**150,000**	35,000	55,000	55,000	5,000		**150,000**
	2299	*Sub-total*	*1,685,000*	*535,500*		*453,000*	*0*	*2,673,500*	*749,043*	*1,164,708*	*679,958*	*79,791*	*2,673,500*
	2300	*Subcontracts (For commercial purposes)*					**0**						**0**

	2301						**0**					**0**
	2399	*Sub-total*										
2999	**Subcontract Component total**		**1,685,000**	**535,500**	**453,000**	**0**	**2,673,500**	**749,043**	**1,164,708**	**679,958**	**79,791**	**2,673,500**
							0					
30	**GROUP TRAINING COMPONENT**						**0**					**0**
	3200	*Group Training*					**0**					**0**
	3201	Inception Workshop	1,000	1,000	1,000		**3,000**	3,000				**3,000**
	3299	*Sub-total*	*1,000*	*1,000*	*1,000*	*0*	*3,000*	*3,000*	*0*	*0*	*0*	*3,000*
	3300	*Meetings/Conferences*					**0**					
	3301	Biannual GEF 5 Steering Committee Meetings	1,500	1,500	1,500		**4,500**	1,125	1,125	1,125	1,125	**4,500**
	3399	*Sub-total*	*1,500*	*1,500*	*1,500*	*0*	*4,500*	*1,125*	*1,125*	*1,125*	*1,125*	*4,500*
3999	**Group Training Component total**		**2,500**	**2,500**	**2,500**	**0**	**7,500**	**4,125**	**1,125**	**1,125**	**1,125**	**7,500**
40	**EQUIPMENT AND PREMISES COMPONENT**						**0**					**0**
	4100	*Expendable equipment*					**0**					**0**
	4101	Office supplies (OERC)	3,000	3,400	6,000		**12,400**	3,000	3,000	3,400	3,000	**12,400**
	4199	*Sub-total*	*3,000*	*3,400*	*6,000*	*0*	*12,400*	*3,000*	*3,000*	*3,000*	*3,000*	*12,000*
	4200	*Non-expendable equipment*										
	4201						**-**					**0**
	4299	*Sub-total*	*0*	*0*	*0*		*0*	*0*	*0*	*0*	*0*	*0*
4999	**Equipment and Premises Component total**		**3,000**	**3,400**	**6,000**	**0**	**12,400**	**3,000**	**3,000**	**3,000**	**3,000**	**12,400**
50	**MISCELLANEOUS COMPONENT**											**0**
	5100	*Operation and maintenance of equipment*										**0**
	5101	OERC Vehicles			5,000		**5,000**	1,250	1,250	1,250	1,250	**5,000**
	5199	*Sub-total*	*0*	*0*	*5000*	*0*	*5000*	*1250*	*1250*	*1250*	*1250*	*5000*
	5200	*Reporting Costs (operational)*										
	5201	Reporting Costs	3,000	3,000	3,000		**9,000**		1,000	3,000	5,000	**9,000**
	5299	*Sub-total*	*3,000*	*3,000*	*3,000*	*0*	*9,000*	*0*	*1,000*	*3,000*	*5,000*	*9,000*
	5300	*Sundry*										

	5301	Internet Access (OERC)			3,000		**3,000**	750	750	750	750	**3,000**
	5399	*Sub-total*	*0*	*0*	*3000*	*0*	*3000*	*750*	*750*	*750*	*750*	*3000*
	5400	*Hospitality and entertainment*										
	5401	Leadership receptions			4,000		**4,000**	2,000			2,000	**4,000**
	5499	*Sub-total*	*0*	*0*	*4000*	*0*	*4000*	*2000*	*0*	*0*	*2000*	*4000*
	5500	*Evaluation*										
	5501	Mid-Term evaluation	10,000	5,000	5,000	**10000**	**30,000**		30,000			**30,000**
	5502	Terminal evaluation	10,000	5,000	15,000	**10000**	**40,000**				40,000	**40,000**
	5503	Audits (M&E)				**20000**	**20,000**	5,000	5,000	5,000	5,000	**20,000**
	5599	*Sub-total*	*20,000*	*10,000*	*20,000*	*40,000*	*90,000*	*5,000*	*35,000*	*5,000*	*45,000*	*90,000*
5999	**Miscellaneous Component total**		**23,000**	**13,000**	**35,000**	**40,000**	**111,000**	**9,000**	**38,000**	**10,000**	**54,000**	**111,000**
		TOTAL	**2,139,344**	**858,400**	**571,500**	**178,462**	**3,747,706**	**929,745**	**1,511,410**	**1,043,660**	**262,492**	**3,747,706**
UNEP Budget Line			**Component 1**	**Component 2**	**Component 3**	**Component 4**	**Total**	**2016**	**2017**	**2018**	**2019**	**Total**

APPENDIX 2: Co-financing by source and UNEP budget lines

Project title: Advancing sustainable resource management to improve livelihoods and protect biodiversity in Palau
Project number: 5208
Project executing partner: Office of Environmental Response and Coordination (OERC)
Project implementation period: 48 months
From: 1 October 2015
To: 30 September 2019
Source of Funding: Cash and In-Kind (US$)

		GEF Cash	PAN	PAN	PICRC	PCS	UNEP	BNM	BAC	BLS	BMR	BOA	BOT	PALARIS	PPLA	TNC	EQPB	PVA	Koror	Angaur	8 Babeldaob States*	
		Total	Cash	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	Total
PERSONNEL COMPONENT																						
1100	*Project Personnel*																					-
1101	Project Manager (OERC)/Component 3 Manager	**144,000**																				-
1102	Staff Training (individual)	**10,000**			100,000					60,000	40,000	60,000							100,000			***360,000***
1103	Component Manager			150,000	250,000	200,000					20,000											***620,000***
1104	Project Supervision						160,000															***160,000***
1105	Technical or Expert Staff				600,000			300,000	350,000	210,000	400,000	300,000	200,000	300,000	200,000	130,000	80,000	110,000	240,000	130,000	900,000	***4,450,000***
																						-
1199	*Sub-total*	**154,000**	-	*150,000*	*950,000*	*200,000*	*160,000*	*300,000*	*350,000*	*270,000*	*460,000*	*360,000*	*200,000*	*300,000*	*200,000*	*130,000*	*80,000*	*110,000*	*340,000*	*130,000*	*900,000*	*5,590,000*
1200	*Consultants*	-																				
1201	College Curriculum Developer	**50,000**																				-
1202	Digital Mapping Expert	**50,000**																	20,000			***20,000***
1203	Ethnobotanical Researcher	**30,000**																				-
1204	Land Use Planner	**200,000**				50,000																***50,000***
1205	Legal Consultant	**75,000**															20,000					***20,000***
1206	Management Plan Developer	**90,000**				100,000													100,000			***200,000***
1207	Primary School Curriculum Specialist	**25,000**																				-
1208	Species Specialist	**20,000**																				-
1209	Sustainable Financing Consultant	**75,000**																				-

		GEF Cash	PAN	PAN	PICRC	PCS	UNEP	BNM	BAC	BLS	BMR	BOA	BOT	PALARIS	PPLA	TNC	EQPB	PVA	Koror	Angaur	8 Babeldaob States*	
		Total	Cash	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	Total
1210	Sustainable Forestry Consultant/Researcher											100,000										***100,000***
1211	Genetic Researchers/Marine				200,000																	***200,000***
1212	Web Developer															20,000		10,000				***30,000***
1299	***Sub-total***	**615,000**	-	-	*200,000*	*150,000*	-	-	-	-	-	*100,000*	-	-	-	*20,000*	*20,000*	*10,000*	*120,000*	-	-	*620,000*
1300	*Administrative Support*	**-**				100,000																*100,000*
1301	Administrative Assistant, OERC	**21,000**																				-
1302	Administrative Assistants, non-OERC			80,000		50,000		20,000	50,000	10,000	50,000	50,000	30,000	40,000								***380,000***
1399	***Sub-total***	**21,000**	-	***80,000***	-	***150,000***	-	***20,000***	***50,000***	***10,000***	***50,000***	***50,000***	***30,000***	***40,000***	-	-	-	-	-	-	-	***480,000***
1600	*Travel on official business*	**-**																				
1601	Travel to conferences	**24,000**			50,000	20,000					40,000	40,000							20,000			***170,000***
1602	Travel to in-country meetings				60,000	50,000	40,000				40,000	40,000	20,000	40,000					40,000			***330,000***
1699	**Sub-total**	**16,000**	-	-	**110,000**	**70,000**	**40,000**	-	-	-	**80,000**	**80,000**	**20,000**	**40,000**	-	-	-	-	**60,000**	-	-	**500,000**
Personnel Component total		**814,000**	-	**230,000**	**1,260,000**	**570,000**	**200,000**	**320,000**	**400,000**	**280,000**	**590,000**	**590,000**	**250,000**	**380,000**	**200,000**	**150,000**	**100,000**	**120,000**	**520,000**	**130,000**	**900,000**	**7,190,000**
		-																				
SUBCONTRACT COMPONENT		-																				
2100	*Subcontracts (UN Organizations)*	**-**																				
2101		-																				-
2199	*Sub-total*	-																				-
2200	*Subcontracts (Non-UN Organizations)*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2201	BNM	**290,000**																				-
2202	BOA	**270,500**																				-
2203	EQPB	**190,000**																				-
2204	Koror State	**50,000**																				-
2205	Melekeok State	**50,000**																				-
2206	MNRET	**200,000**																				-
2207	Ngarchelong State	**50,000**																				-
2208	PAN Fund	**140,000**																				-
2209	PAN Office	**433,000**																				-
2210	PCS	**310,000**																				-
2211	PICRC	**540,000**																				-
2212	BOT	**150,000**																				-
2213	Subcontracts to states with PAN Sites		4,000,000																			***4,000,000***
2299	*Sub-total*	**2,673,500**	*4,000,000*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*4,000,000*
2300	*Subcontracts (For commercial purposes)*	**-**																				

		GEF Cash	PAN	PAN	PICRC	PCS	UNEP	BNM	BAC	BLS	BMR	BOA	BOT	PALARIS	PPLA	TNC	EQPB	PVA	Koror	Angaur	8 Babeldaob States*	
		Total	Cash	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	Total
2301		-																				
2399	*Sub-total*	-																				
Subcontract Component total		**2,673,500**	**4,000,000**																			**4,000,000**
		-																				
GROUP TRAINING COMPONENT		-																				
3200	*Group Training*	-																				
3201	Inception Workshop	**3,000**																				**-**
3202	Training Workshops			40,000	100,000			80,000			40,000	40,000		10,000							120,000	***430,000***
3299	*Sub-total*	**3,000**	-	*40,000*	*100,000*	-	-	*80,000*	-	-	*40,000*	*40,000*	-	*10,000*	-	-	-	-	-	-	*120,000*	*430,000*
3300	*Meetings/Conferences*	-																				
3301	Biannual GEF 5 Steering Committee Meetings	**4,500**																				**-**
3302	Partner meeting			40,000	100,000			20,000		20,000	40,000							20,000			160,000	***600,000***
3399	*Sub-total*	**4,500**	-	*40,000*	*100,000*	-	-	*20,000*	-	*20,000*	*40,000*	-	-	-	-	-	-	*20,000*	-	-	*160,000*	*600,000*
Group Training Component total		**7,500**	**-**	**80,000**	**200,000**	**-**	**-**	**100,000**	**-**	**20,000**	**80,000**	**40,000**	**-**	**10,000**	**-**	**-**	**-**	**20,000**	**-**	**-**	**280,000**	**830,000**
		-																				
EQUIPMENT AND PREMISES COMPONENT		-																				**-**
4100	*Expendable equipment*	-																				**-**
4101	Office supplies (OERC)	**12,000**																				**-**
4102	Office supplies (non-OERC)			20,000	100,000	50,000		20,000	20,000	40,000	80,000		20,000	30,000			50,000		100,000		90,000	***620,000***
4199	*Sub-total*	**12,000**	-	*20,000*	*100,000*	*50,000*	-	*20,000*	*20,000*	*40,000*	*80,000*	-	*20,000*	*30,000*	-	-	*50,000*	-	*100,000*	-	*90,000*	*620,000*
4200	*Non-expendable equipment*	-																				
4201	Boat supplies	-			300,000														120,000	40,000	85,000	***545,000***
4202	Computer supplies													80,000					40,000		90,000	***210,000***
4302	Water Testing/Science Supplies																50,000		40,000		45,000	***135,000***
4299	*Sub-total*	-	-	-	*300,000*	-	-	-	-	-	-	-	-	*80,000*	-	-	*50,000*	-	*200,000*	*40,000*	*220,000*	*890,000*
Equipment and Premises Component total		**12,000**	**-**	**20,000**	**400,000**	**50,000**	**-**	**20,000**	**20,000**	**40,000**	**80,000**	**-**	**20,000**	**110,000**	**-**	**-**	**100,000**	**-**	**300,000**	**40,000**	**310,000**	**1,510,000**
		-																				
MISCELLANEOUS COMPONENT		-																				**-**
5100	*Operation and maintenance of equipment*	-																				**-**
5101	OERC Vehicles	**5,000**																				**-**
5102	Non-OERC Vehicles			50,000	500,000	50,000		40,000	80,000	120,000	210,000	150,000	25,000					40,000	120,000	80,000	180,000	***1,645,000***
5199	*Sub-total*	**5,000**	-	*50,000*	*500,000*	*50,000*	-	*40,000*	*80,000*	*120,000*	*210,000*	*150,000*	*25,000*	-	-	-	-	*40,000*	*120,000*	*80,000*	*180,000*	*1,645,000*
5200	*Reporting Costs*	-																				
5201	Reports	**9,000**			60,000											50,000			10,000			***120,000***
5299	*Sub-total*	**9,000**									-										-	

		GEF Cash	PAN	PAN	PICRC	PCS	UNEP	BNM	BAC	BLS	BMR	BOA	BOT	PALARIS	PPLA	TNC	EQPB	PVA	Koror	Angaur	8 Babeldaob States*	
		Total	Cash	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	In-Kind	Total
			-	-	*60,000*	-	-	-	-	-		-	-	-	-	*50,000*	-	-	*10,000*	-		*120,000*
5300	*Sundry*	**-**																				
5301	Internet Access (OERC)	**3,000**																				**-**
5302	Communications			20,000	40,000	20,000		20,000		40,000	40,000	20,000	5,000					20,000	40,000		90,000	***355,000***
5399	*Sub-total*	**3,000**	-	*20,000*	*40,000*	*20,000*	-	*20,000*	-	*40,000*	*40,000*	*20,000*	*5,000*	-	-	-	-	*20,000*	*40,000*	-	*90,000*	*355,000*
5400	*Hospitality and entertainment*	**-**																				
5401	Leadership receptions	**4,000**			40,000	10,000													10,000		90,000	***150,000***
5499	*Sub-total*	**4,000**	-	-	*40,000*	*10,000*	-	-	-	-	-	-	-	-	-	-	-	-	*10,000*	-	*90,000*	*150,000*
5500	*Evaluation*	**-**																				
5501	Mid-Term evaluation	**30,000**																				**-**
5502	Terminal evaluation	**30,000**																				**-**
5503	Audits	**20,000**																				**-**
5599	*Sub-total*	**90,000**																				**-**
Miscellaneous Component total		**101,000**		**70,000**	**640,000**	**80,000**	**-**	**60,000**	**80,000**	**160,000**	**250,000**	**170,000**	**30,000**	**-**	**-**	**50,000**	**-**	**60,000**	**180,000**	**80,000**	**360,000**	**2,270,000**
		-																				
	Project Management Cost	**139,706**																				-
	Sub-total	**139,706**																				**-**
	TOTAL	**3,747,706**	**4,000,000**	**400,000**	**2,500,000**	**700,000**	**200,000**	**500,000**	**500,000**	**500,000**	**1,000,000**	**800,000**	**300,000**	**500,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**250,000**	**1,850,000**	**15,800,000**

* Melekeok, Ngiwal, Airai, Ngaraard, Ngatpang, Ngardmau, Aimeliik, Ngarchelong

APPENDIX 3: Incremental Cost Analysis

1. Project development followed the five steps suggested by the GEF Operational Guidelines for the Application of the Incremental Cost Principle.

Step 1: Presentation of the Business-as-Usual Scenario (What would happen without the GEF investment)

2. Palau is a leader in conservation in the Pacific and the world, and will continue to work with communities to protect sites and to develop new methods for measuring benefits. However, these will continue in the fragmented fashion they are in now and at their current pace. Investments by Palau, the Micronesia Challenge, and the GEF have improved the implementation of the PAN at the state level, including more than doubling the number of sites in the PAN and assisting states to begin implementation. The Micronesia Challenge Endowment and the Green Fee will continue to be used to support state actions. However, gaps at the national level exist and will remain without a significant push in the form of dedicated funding to support national coordination.
3. **Component 1** – Palau has invested heavily in the PAN and will continue to do so. However, without dedicated funding for national-level coordination and evaluation, the PAN will continue adding sites without a comprehensive, scientifically-based plan. Important sites may not be protected or even considered. At the current rates, completion of METT will take at least another 7 years, and judging the effectiveness of PAN sites will not be completed for at least another decade. This will hinder Palau's ability to report to the Micronesia Challenge by the 2020 deadline. Reaching milestone indicators for Effective Conservation will be more difficult, especially in enforcement and community buy-in.
4. **Component 2** – Implementation of the SLM Policy will be minimal and at the individual agency level. Airai and Melekeok will likely complete their SLM plans to include zoning, and at most 1 other state will start SLM Master/Land Use Planning. Tourism will continue to have negative impacts on the environment and water sources may be degraded.
5. **Component 3** – The existing budget shortfall for OERC will continue and OERC will not be able to focus on internal coordination at the national level. Gaps and redundancies, with many conflicts, will remain for many cross-sector issues, and will be solved individually. IAS will continue to spread, possibly due to agency actions that are not coordinated. EQPB's mandate will not be reviewed.
6. The GEF alternative will not only speed processes in Palau, but will invest in the overall national-level coordination that is currently not provided for by any organization. In terms of the PAN this project will allow the national advisory and technical organizations to catch up with the gains that states have made in protecting sites and initiating management. Together, the national organizations and the states can move towards more Effective Conservation. It should position the PAN to be largely self-sufficient, relying on the Green Fee, the Micronesia Challenge Endowment, and diversified local funding sources. This is a critical "last step" provided by the GEF increment. For the SLM Initiative, the GEF alternative will kick-start its implementation and provide the momentum for ongoing improvement. One key benefit arising from the GEF alternative is the development of comprehensive

methods and protocols – such as METT and land use planning – that can be models in other SIDS (as many of Palau's products currently are).

Step 2: Identify the Global Environmental Benefits (GEB) and fit with GEF Strategic Programs and Priorities

7. With the identification and eventual protection of a full suite of representative areas, Palau will move towards protection of all of its endangered and endemic species, realizing global environmental benefits for biodiversity. Implementation of SLM will reduce many of the root causes of threats, thereby benefitting a range of terrestrial and marine targets. This project has a clear livelihood component and will model the attainment of GEBs while at the same time allowing for growth in quality of life and socioeconomic indicators.

Step 3: Develop the Project Results Framework and logframe

8. The Results Framework includes both the baseline investments and the GEF increment. Indicators and targets show the project's anticipated contributions to achieving the strategic objective and outcomes. Particular emphasis on METT and its use will provide, for the first time for many systems and species, a true measure of global and national environmental benefits.

Step 4: Provide the incremental reasoning and GEF's role

9. The GEF has a unique role in both the scale and scope of support it can provide. This project crosses international and external borders and requires the expertise and cooperation of organizations from all sectors. With the GEF's global experience across sectors, it is able to evaluate and judge the effectiveness of such an expansive and cross-sector project. The Palau Government is limited in its scope by legal mandates; for instance, the majority of PAN funds by law must be directed to state governments and PAN sites and not to national level coordination. The GEF is not limited by such mandates and thus can invest as necessary. This project provides extremely good value. The PAN has more than a decade of investment and the investment here will be one of the last towards making the PAN fully functional. A relatively small investment here will lead to the benefits realized by these many years of effort.

Step 5: Clarify the role of co-financing resources to ensure a suitable match for the incremental costs of the GEF investment

10. Project co-financing is defined as the non-GEF project resources that are essential for meeting the GEF project objectives, and which directly contribute to the outcomes of the project. The GEF increment supports many of the national level efforts of this project; co-financing supports much of the baseline effort that is going on at the state level. Both are necessary to achieve the stated objective.

Table A3.1: Incremental cost analysis

Project Component	Business-as-Usual (B), 2019 without GEF investment	Alternative (A), 2019 with GEF investment	Increment (A-B), Improvement in outcome due to GEF investment
Project Component 1: Improving Palau's Protected Areas Network	Site management in states continues and expands. National level coordination and provision of technical expertise limited, creating some areas of conflict. Some cross-sector issues addressed, but little towards IAS and SFM. PAN regulations still missing some SOPs. 3-4 state plans updated with new information.	Management takes into account best information and is coordinated across sectors. Levels of PAN governance are in accord. *Outcome: 1.1: PAN National Strategy under implementation with all 16 states engaged in PAN*	Creation of an overarching document. State level management and national level technical support in line with each other's expectations and conflicts reduced. At least 2 cross-sector issues addressed by PAN in some way, particularly biosecurity. At least 5 additional state plans updated with new information.
	PAN management improved somewhat but with gaps, additional critical areas known, but certainty is low.	PAN design and implementation guided by comprehensive science and areas important to national and global biodiversity are included in PAN planning. *Outcome 1.2: PAN coverage is representative of important biodiversity/ecosystem services with coverage (ha) of unprotected ecosystems and unprotected threatened species identified*	Improved certainty that important areas are targeted by PAN.
	1 new state with a PAN site and 5-6 new PAN sites nominated based on budgetary considerations. Piecemeal knowledge about gaps in laws. METT that are not complete and used opportunistically to improve management in 6 sites. Palau meets 2020 MC goal in terms of coverage, but not Effective Conservation for most sites.	Sites meet Effective Conservation objectives and methods and tools produced in Palau inform SIDS elsewhere. *Outcome 1.3: PAN management capacity and coordination improved at all levels (site, state, national) and long-term sustainability and management effectiveness of PAN sites (new or existing) measurably improved, including adding at least 4 protected areas to help ensure ecological representativeness*	2 additional states with PAN sites and new PAN sites nominated for biodiversity considerations. Improved knowledge of gaps in laws and draft legislation. METT complete and used systematically in 3 additional sites (9 total). Palau meets Effective Conservation goals for at least 3 sites, particularly those with globally important designations.
	Community awareness higher, but participation levels low.	Community ownership of PAN sites is high and community-based management forms the basis of action on the ground. *Outcome 1.4: States and local communities are measurably more aware and involved in PAN and are active in management and monitoring processes*	Community awareness levels significantly higher and participation noticeably and measurably higher.
	Some states with diversified funding based on best	Diversified income streams produce sustainable funding in 9 sites.	At least 9 states systematically pursuing

Project Component	Business-as-Usual (B), 2019 without GEF investment	Alternative (A), 2019 with GEF investment	Increment (A-B), Improvement in outcome due to GEF investment
	available knowledge.	*Outcome 1.5: PAN Sustainable Financing needs are reviewed, planned and programmed; programmes are implemented and monitored*	diversified funding streams.
GEF	-	2,120,500	2,120,500
Co-Finance	8,535,000	9,900,000	1,365,000
Component Total (A-B)	8,535,000	12,020,500	3,485,500
Project Component 2: Effective Implementation of Palau's Sustainable Land Management (SLM) Policy	An unofficial body will develop and will take informal efforts to coordinate actions. Implementation will be slow, with focus on Guidelines produced when funding is available. A National SLM Action Plan will be drafted but with gaps and no authority.	Mechanisms and plans will be in place to address cross-sector issues and to implement the top two priorities of the SLM Policy. *Outcome 2.1: Effective implementation of National SLM Policy*	A formal, mandated, and authorized Coordinating Body will be formed. A full suite of Best Practices will be researched and produced. The National SLM Action Plan will be complete, endorsed, and authorized.
	SLM Funding will be low, uncoordinated, and with gaps and redundancies based on what agencies receive in annual allocations. Tourism will expand opportunistically. Some additional information about SFM will be generated.	Implementation of SLM will be more consistent across sectors, with tourism and forest actions taken based on best available information rather than opportunistically. *Outcome 2.2: Enhanced and effective national coordination of SLM/SFM across all sectors and levels of government (state, national)*	Funding for SLM will be higher and will enable coordinated review of new development plans. A Tourism plan will guide new permitting and development in addition to state SLM plans. Sustainable harvesting rates for key forest species will be known and will feed into SFM plans.
	Informal links at the agency level, with assistance from NGOs, will address PAN and SLM.	Fewer conflicts exist between PAN sites and adjacent areas, and development plans consider the impacts of protected biodiversity and natural resources. *Outcome 2.3: Recognition, integration and complementarity of the National PAN Strategy with the wider National SLM Action Plan*	A formal mechanism mandated by multiple levels of government will address standardized links and cross-sector issues.
	Master and Land Use Plans developed in 1 state. Some best practices developed and increasing implementation of beneficial practices. However, negative impacts from the environment still outweigh beneficial practices.	Land uses are more in line with environmental conditions and carrying capacities and have fewer negative impacts on biodiversity and water. *Outcome 2.4: Institutional infrastructure (land use plans) in place to enable reduced pollution from land-based activities*	Master and Land Use Plans developed in 4 states. Increasing implementation of best practices leads to a catching up of beneficial practices and a decrease in negative practices.

Project Component	Business-as-Usual (B), 2019 without GEF investment	Alternative (A), 2019 with GEF investment	Increment (A-B), Improvement in outcome due to GEF investment
GEF	-	847,000	847,000
Co-Finance	3,300,000	4,250,000	950,000
Component Total (A-B)	3,300,000	5,097,000	1,797,000
Project Component 3: Integrated Coordination, Mainstreaming & Project Management	OERC improves partnerships and reporting to international conventions, but does not take on the role of coordinating national approaches and actions. Coordination will continue in an informal setting.	Palau moves closer to its goal of balancing state-based management of sites with national benefits. This is accomplished by increasingly streamlined and aligned biodiversity and natural resource protection and development plans across multiple scales. *Outcome 3.1: Effective integrated executing agency role by the Office of Environmental Response and Coordination (OERC) or designated government agency for component outcomes ensuring cross-sectoral mainstreaming of investments, implementation and results*	OERC provides a hub for information across governance levels and geographic scope, and has the authority and ability to identify and solve conflicts.
	Lessons learned are shared during available workshops and there is some duplication of work.	Information sharing becomes standard and use of best available knowledge informs more development and adaptive decisions. *Outcome 3.2: Two-way peer learning approach fostered through participation in regional initiatives (Micronesia Challenge, Ridge to Reef, Integrated Water Resource Management, etc.)*	Information can be found in predictable places and is catalogued and relevant to more sites.
	An informal process to review cross-sector issues arises, but has no authority. Best practices in many areas are developed, but are not shared widely and not utilized to their full extent.	Cross-sector issues are incorporated into almost every new document produced with the agreement of a wide body of stakeholders. More land use decisions are made with full knowledge and acceptance of Best Practices. *Outcome 3.3: Effective national and state coordination of PAN, SLM and associated cross-sector issues*	A formal process for addressing cross-sector issues results in plans that are more aligned. A full suite of Best Practices is produced and shared.
GEF	-	557,500	557,500
Co-Finance	1,250,000	1,450,000	200,000
Component Total (A-B)	1,250,000	2,007,500	757,500
TOTAL GEF	-	3,525,000	3,525,000
TOTAL Co-Finance	13,085,000	15,600,000	2,515,000
TOTAL (A-B)	13,085,000	19,125,000	6,040,000

Table A3.2: Checklist: *Incremental Cost Analysis during Project Development, Implementation and Reporting*

Incremental Cost Analysis	During project development	During implementation and at completion
1. Analysis of "Business as Usual" Scenario	Detailed problem/threat/barrier analysis; detailed analysis and quantification of the ongoing projects and programs (foundational and catalytic interventions) How would the proposed project outcomes be affected if GEF would not invest?	Reporting on GEBs in annual project implementation review and terminal evaluation using Logical framework indicators and other tracking tools
2. Analysis of Global Environmental Benefits and Strategic Fit	Indicators, definitions and tracking tools for the relevant GEB; Confirmation of how the project will address focal area strategic program objectives and outcomes	
3. Incremental cost reasoning and GEF role	Annex narrative explaining the distinction between GEF increment and underlying project	GEF funds used according to incremental reasoning, and lessons learnt are captured to apply to future projects and the ongoing development of the MC
4. Determination of Result-based Framework	Detailed logical framework matrix, including relevant indicators, risks and assumptions	Reporting on achievement of objectives and outcomes of project through all stages of evaluation.
5. Role of Co-finance	Strong rationale and feasibility of the future project without GEF investment. Identification of source, amount and type of co-finance. Identification of co-financing sources and amounts that will pay for GEB	Outcome-based budget table showing GEF and co-finance by outcome. Reporting at all stages of evaluation on amount of co-financing leveraged

APPENDIX 4: Results Framework

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
Title	Advancing sustainable resource management to improve livelihoods and protect biodiversity in Palau						
Goal	To improve livelihoods and protect biodiversity.						
Objective	To effectively and sustainably use biodiversity and maintain ecosystem goods and services in Palau by building institutional capacity to integrate the Palau Protected Area Network (PAN) with the Sustainable Land Management (SLM) initiative, and fostering a ridge-to-reef approach across and within these initiatives	Extent, type, or size of threats from Climate Change, Habitat degradation / loss, IAS, and Over / Illegal harvesting; Population size / spatial range of biodiversity. GEF METT Threat Scores (Objective 1, Section II) GEF METT Assessment Form Scores (Objective 1, Section II)	**Climate change**: Bleaching can affect up to 80% of Palau's reefs; 100% of atoll, beach, and strand vegetation at risk of being lost. **Habitat degradation/loss**: Siltation rate at 150 km²/year; Forest loss unknown; Fires impact 100% of terrestrial conservation areas. **IAS**: Only one species of *Fabaceae* currently targeted for control at a rate of 1 tree per day or less; Macaques present but not established on Babeldaob and Koror. **Over/Illegal Harvesting**: Loss of mangroves at 0.04%/year; Dugongs and Micronesian Pigeons declining in population and spatial extent; 2011 fish catch 56% of 2007 catch. GEF METT Threat Scores (out of undesired max of 159): RISL – 59; Northern Reefs – 41; Ngeremeskang – 83; Ngardok – 53 GEF METT Assessment form score (out of	Exact targets determined during Inception Phase. Indicator species determined as part of METT. Preliminary targets: 1 – 100% of bleaching resistant sites in the RISL and 50% of bleaching resistant sites elsewhere protected in MPAs 2- Siltation rate in Airai Bay reduced by 10% (135 km²/yr) 3 – 30% of terrestrial conservation areas free of fires Declining threat scores from start to finish; Increasing or stable populations / geographic extent of populations GEF METT Threat Scores reduced by at least 10% GEF METT Assessment form scores increased by at least 10%	Exact targets determined at Mid-Project Workshop, with research conducted beforehand. Preliminary targets: 1 – At least 2 IAS with active management 2 – Macaques do not spread to Babeldaob 3 – Mangrove loss declines by 25% to 0.03%/yr 4 – Declining trends in dugongs and pigeons begin showing a plateau 5 – Fish catch improves Declining threat scores from start to finish Increasing or stable populations / geographic extent of populations GEF METT Threat Scores reduced by at least 25% GEF METT Assessment form scores increased by at least 30%	Final METT data and analysis - biological and socioeconomic	METT will be completed and data will be adequate to judge changes in threat scores and population levels. All partners will fulfill ambitious plans. Changes in behavior, if implemented, will lead to declines in threats and increases in populations. Investment in document preparation will lead to actual biodiversity values.

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
			desired 112): RISL – 77; Northern Reefs – 61; Ngeremeskang – 46; Ngardok – 68				
Outcome 1.1:	Improved Design, Evaluation, and Implementation of the PAN leads to increased engagement by states, improved coverage of sites, species, and ecosystem functions, and increased conservation effectiveness.	1. Number of states engaged in PAN 2. Existence of METT 3. Extent of PAN coverage (same measure as GEF METT (Objective 1, Section I) 4. Total hectares of marine and terrestrial area projected. 5. Percentage of endemic and endangered species covered by PAN	PAN activities ongoing in piecemeal way without coordination; 15 states engaged in PAN Current baseline unknown - many ecosystems and species are protected, but gaps are unknown Draft marine, terrestrial, and socioeconomic METT developed, but not finalized. Little quantitative understanding of PAME. Coverage of all ecosystem types is unknown. 21 PAN Sites in 13 states; 23,000 hectares marine PAN sites and 4200 hectares terrestrial PAN Sites	PAN Strategy includes guidelines for state PAN activities. 16 states engaging with PAN. List of key ecosystems and map of locations developed. List of endangered species developed. List of recorded endemic species developed. Baseline estimates for existing protection of species are developed. Standardized PAN METT identified and implemented. Baseline established when METT finalized. 2 new or expanded PAN sites.	Majority of PAN Activities are in line with National PAN Strategy and SLM Strategy 16 states with PAN sites PAN is expanded to include at least one representation of all key ecosystems. At least 1 site is added to PAN or has a changed management regime to maximize refugia or resiliency to climate change. At least one site provides benefits for women or marginalized populations Combined, PAN sites and protect 100% of endangered megafauna and trees and an increasing percentage (by year) of endangered microfauna and flora. Combined, PAN sites protect at least 1 known occurrence of each recorded endemic species, or coverage of known endemic species increases significantly from start to end of project.	Meeting minutes from document reviews. List of PAN Sites. Overlay of maps. Cross-reference Protected Area management plans with lists of species. METT data and analysis reports; PAN site list and management plans;	Cross-sector issues can be resolved to all stakeholder's satisfaction. A positive equation exists in which development goals and environmental goals can both be realized simultaneously. National PAN Management Strategy will improve coordination, management effectiveness; Participation of all states in PAN will strengthen PAN; Developing ranking systems and inventorying sites will improve strategic planning. **Risk**: Some states refuse to engage in PAN. PAN does not adequately represent all key ecosystems and species; Sufficient will exists to expand PAN coverage area; PAN is an effective tool for preserving and managing biodiversity; Improving management of biodiversity requires a better understanding of biological resources present. Protecting only 1 occurrence of each endemic species will be

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
					METT finalized, implemented, and utilized for adaptive management in 4 new PAN sites and 5 existing PAN sites. METT provides evidence that PAME is increasing. 25 PAN sites; PAN coverage expanded by 95,000 hectare marine and 6,300 hectares terrestrial (138,000 marine and 10,500 hectares terrestrial, total)		adequate to ensure its survival. Networks of protected areas will deliver local, national, and global biodiversity values. **Risk**: METT takes longer to finish than anticipated.
Output 1.1.1:	IMPROVED DESIGN: A National PAN Management Strategy and Action Plan is developed and endorsed by 2017; and the National and associated State Plans 1) align with SLM in the 4 core areas and with regional projects such as R2R, 2) engage all 16 states, and 3) cover gaps and ensure representative coverage of sites, species, and ecosystem functions, and 4) address the applicability of national, regional, and global goals and benefit-sharing.	1. Status of National PAN Management Strategy & Action Plan; Communication Plan 2. State plans with headers aligned with national plan 3. Status of PAN gap analysis report and data; Number of taxonomic assessments 4. Number of PAN/SLM coordination documents	No National PAN Management Strategy and missing SOPs per the PAN regulations; Palau MC Communications Plan but no PAN Communications Plan; Inconsistent approach to addressing key issues between PAN sites; No national plan so Baseline for aligned plans is zero (0) No system for determining conservation status and needs of PAN sites, or for evaluating PAN sites; Limited capacity for taxonomic assessments	National PAN Strategy is created. PAN Communications Plan created and includes SOPs and guidelines for state plans. Feedback loops established to indicate adaptive nature of PAN strategy and to gauge utility and level of engagement; 1 state plan aligned with national plan Gap analysis complete. Priority areas identified. At least 2 documented instances showing resolution of a PAN/SLM conflict	National PAN Management Strategy is endorsed; Strategy addresses key issues identified in Outcomes 1.2, 1.3, 1.4 and 1.5; 5 state plans aligned with national plan. Gap analysis complete and incorporated into PAN Strategy and other cross-sector plans. PAN Criteria and Ranking System developed. Number of taxonomic assessments increased. At least 4 policy statements produced showing coordinated action between SLM and PAN coordinators on 4 cross-cutting issues.	Finished document and signed endorsement documents; State management plans Copy of report; Citation list from other documents. METT and genetic data. Copy of Criteria and Ranking document. Maps of PAN sites, gaps, and priorities. Copies of policy statements, copies of meeting	Coordination during the design of the PAN and SLM strategies will improve coordination of initiatives; Planning committees will be able to work together effectively

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
			Coordination of PAN and SLM is inconsistent. Zero dedicated documents.			agendas.	
Output 1.1.2:	IMPROVED EVALUATION: Management Effectiveness Tracking Tools (METT): Agree on a set of 3 harmonized national and state level PAN site monitoring and evaluation tools and protocols (1 marine, 1 terrestrial, 1 socio-economic) which are aligned with METT, with full trial and evaluation of Palau's METT tool in at least 9 PAN sites by the end of the Project.	1. Number and types of data produced by METT	Draft marine, terrestrial, and socioeconomic METT developed, but not finalized	Standard METT identified and tested with a view to upscaling to be applied to entire PAN system	METT applied and utilized for adaptive management. Results shared widely.	Reports, meeting minutes, data, documents, protocols, online sharing of information	METT can be finalized in this timeframe. A systematic approach to monitoring and evaluating management actions will enable more strategic and effective capacity development; Setting out standardized monitoring practices will simplify training; Clear standards and timing requirements for monitoring and reporting will improve participation across PAN sites; Site managers will be willing to participate in METT;
Output 1.1.3:	IMPROVED IMPLEMENTATION: At least 4 PAN sites meet a minimum METT score, and at least 5 other sites show improving trends toward effective conservation (e.g. reduction in over/illegal harvesting) by the end of the Project and total area protected.	1. METT used for PAME; 2. PAME Score 3. Percentages of marine and terrestrial areas meeting Micronesia Challenge goals	Complete METT for PAN does not currently exist; PAME unknown, but many gaps in effective conservation exist Palau has met the percentages of area in managed areas, but without METT, management effectiveness is undetermined	At least 4 PAN sites meet a minimum PAME score using METT and at least 5 sites show improving trends in management effectiveness. METT is developed and implemented and PAME scores determined in at least 9 sites.	METT is implemented in at least 9 pilot sites; METT is used to improve management in pilot sites Total PAN Site coverage expands to 138,000 hectares marine and 10,500 hectares terrestrial. 9 sites meet minimum PAME score.	Data and Analysis report, presentations Data and Analysis report, presentations, Micronesia Challenge list of PAN sites	Sites will be able to implement METT; Sites will have the capacity to address management issues identified through METT; Sites will be able to make changes and recognize improvements within the timeframe of the Project; Knowledge of PAME will lead to improvements in management and subsequently to improvements in METT. METT scores will improve sufficiently to provide evidence of effective management;

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
							Effectively conserved areas as identified through METT will continue to be managed effectively over time; METT will be successfully upscaled to work in all PAN sites
Outcome 1.2:	PAN management capacity (engagement, training, and financial) and coordination improved across sectors and across governance levels and results in benefits across genders and for marginalized populations in outlying states.	1. Stakeholder management capacity; 2. Public perception of PAN/MPAs (% support), 3. Number of conflicts between PAN and SLM 4. Status of revenue assessment; 5. GEFF METT (Objective 1, Section III) Financial Sustainability Scores raised on meeting agendas.	Management capacity is limited. Inconsistent support and understanding of PAN at state and community levels; levels of support and reach unknown. States to be targeted (and total stakeholder population) to be determined during Inception Phase. Baseline level of % support, number of people currently active to be determined during Inception Phase. Zero (0) Palau-based crowd sourced data and documentation of PAN/SLM conflicts. PAN depends heavily on Green Fee; long-term sustainability could be impacted by global economic fluctuations. Of 21 sites, over 80% (17) are reliant on Green Fee for over 90% of budget.	Initial results of public perception surveys show increasing trend in support At least 1 state shows increased resiliency to economic fluctuations (indicators to be determined by METT, e.g. Staff turnover, % of management plan implemented) Total GEF METT Financial Sustainability Score improves by at least 20%.	Increasing stakeholder management capacity; Number of conservation staff increases; Number of individuals receiving training increases; At least 80% of stakeholder population in 8 states exposed to new PAN information. % of public supporting PAN/MPAs increased from baseline to finish. Conflicts between PAN and SLM reduced. Financial sustainability of PAN is improved; Funding portfolio is increasingly diversified in at least 3 sites. Exclusive reliance on Green Fee reduced (only 13 sites reliant on Green Fee for majority of budget; Green Fee provides less than 70% of budget). Dollar amount raised from conservation from diversified streams increases yearly. Total GEF METT Financial	Rapid assessment of manager capacity (anecdotal or combined with socioeconomic METT) Socioeconomic survey sheets, data, and analyses. PAN/SLM coordination topics on meeting agendas. Field notes. Management plans, Reports to PAN Fund, Budget allocations	Environmental management capacity can be improved by working to address regulatory gaps and align existing policies; Legislators will be willing to change existing regulations; Lack of trained environmental managers is a barrier to implementing management plans. Communities will participate in survey; Survey will provide information that will be useful in guiding outreach activities; Outreach activities will be effective in engaging the public; The public will be interested in and engage in outreach activities. Outreach will lead to behavior change. PAN financing can be improved; Policy makers will be willing to adopt changes recommended

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
			GEF METT Financial Sustainability Score Total = 30% out of desired 100%. (Component 1, Legal frameworks score = 38%; Component 2, Business planning = 36%; Component 3, PA Revenue Generation = 17%)		Sustainability Score improves by at least 50% (For a final score of at least 45).		by review; Political support for conservation will continue and funds will not be diverted to other purposes
Output 1.2.1:	IMPROVED ENGAGEMENT: An outreach program reaching at least 80% of stakeholders in 8 states results in communities that are measurably more aware and supportive of PAN and increasing active participation in management of PAN Sites.	1. % of stakeholders exposed to PAN information 2. Number and type of crowdsourcing opportunities for biodiversity and ecosystem monitoring,	PAN lacks a unified public outreach program; baseline currently unknown and TBD during Inception Phase No Palau-based crowd sourced data. Human, time, technical, and financial resource shortages impede monitoring and management of PAN sites	4 communities reached. Increasing number of community members active in Northern Reefs. Crowdsourcing platforms established	Outreach program reached at least 80% of stakeholder groups (traditional leaders, men's and women's cheldebechel, fishers, conservation officers, youth groups, hunters, farmers association, PAQua, commercial buyers) in 8 states Number of entries to crowd sourced data increases yearly. Community participation in PAN monitoring and management is improved; Resources are developed to enable community participation	Outreach field notes and reports, socioeconomic analyses Entries to online data portals	Communities will have the interest and technical capacity to support crowdsourcing monitoring activities; Data will be reliable enough to provide effective guidance to decision makers; Public interest will be sufficient to provide ongoing support to activities
Output 1.2.2.	IMPROVED TRAINING: The number of trained, certified PAN Staff increases by at least 15 and benefits some marginalized populations in outlying states.	1. Number of conservation staff; 2. Number of staff receiving training;	PAN management capacity and coordination are inconsistent at all levels. 100% of government agencies have vacancies for conservation staff; Trainings have been on mixed topics;	At least 1 organization fully staffed (OERC); Number of staff increased. Gaps in laws identified. Training programs streamlined.	Number of trained PAN Managers increased by at least 24; Stakeholder assessments show increasing capacity	Organizational chart and paystubs; Workshop notes from trainings; Rapid assessment of manager capacity (anecdotal or	National congress will follow through on commitments to fund organizational chart according to plan.

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
						combined with socioeconomic METT). Curriculum from training program. Legal review.	
Output 1.2.3	IMPROVED FINANCING: PAN revenue generation assessment from local and non-local sources at project inception (baseline) and project end show diversified financial support at the national and state levels and alignment with regional programs such as the Micronesia Challenge, and benefits are shared widely with gender and environmental safeguards in place.	1. PAN revenue generation from local and non-local sources (# sources) 2. Number of management plans with a diversified portfolio in budget.	4 existing diversified sources: tourism (entrance fees), grants, enforcement fines (minimal), permits (e.g. catch and release, use, or research), or grants, many at only 1 site. Plan does not exist. Management plans do not include sustainable funding section. Of 21 PAN sites, only 4 receive significant funding (more than 10%) from direct revenues (e.g. tourism or use permits) or grants; 17 are reliant on Green Fee.	Opportunities for improving PAN sustainable financing identified Communication plan implemented in 1 state 1 state with updated management plan	Sustainable Financing plan updated and endorsed. Additional funding streams identified and implemented across more locations. Communication plan for the PAN Sustainable Financing Plan completed and endorsed and being implemented. Number of states reached increases yearly. Resiliency to economic fluctuations is institutionalized by increasing the number of states with diversified income.	Copy of assessment and plan Meeting minutes, copies of worksheets and outreach logs. Copy of revenue generation report. Management plans and budget documentation.	Diversifying income will increase resiliency.
Outcome 2.1:	Improved and effective planning, alignment, and coordination of the Palau SLM Policy	1. Existence of National SLM Action Plan; 2. Number of actions implemented from National SLM Action Plan 3. Number of public mandates requiring PAN/SLM linkages; Degree of alignment between PAN and SLM documents	Zero (no National SLM Action Plan exists) Baseline is zero for Public Mandates GEF METT Score baseline is 9 (out of desired 24)	National SLM Action Plan drafted and agreed. MNRET issues written mandate that PAN and SLM are to be integrated. Assessment report on the coordination process completed. GEF METT Score improves by at least 20%.	Number of actions from National SLM Action Plan increases (yearly) Degree of alignment (number of sections that match in each document; number of conflicts) increases yearly. GEF METT Score improves by at least 66% (to at least 15 out of 24).	Annual reports of SLM and MNRET, Meeting minutes Copy of Mandate. Copy of assessment. Copy of policy statements.	National SLM Policy will be adopted and incorporated into planning practices; Public and private sectors will support SLM policies; SLM and PAN policies will be align to provide mutual support. **Risk**: Political will changes and support declines. Coordination during the design of the PAN and

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
		4. GEF METT (Objective 2, Part V, #6) Score for Policy and Regulatory Frameworks					SLM strategies will improve coordination of initiatives; Planning committees will be able to work together effectively
Output 2.1.1:	2.1.1: IMPROVED PLANNING: A National SLM Action Plan that incorporates ecosystem-based management (such as R2R), includes updated sustainable financing information and goals, addresses cross-sector issues such as SFM and Climate Change, considers benefits across genders and marginalized communities, and aligns with the PAN is designed and agreed.	1. Number of policy statements 2. Number of assessments on SLM/PAN completed; 3. Number of documents with joint PAN/SLM Policy statements.	Zero (no National SLM Action Plan exists)	PAN and SLM Policy Statements drafted Assessment completed.	PAN and SLM Policy Statements agreed and under implementation Policy statements on 4 cross-sector areas developed and incorporated into PAN and SLM documents. Number of documents with joint PAN/SLM policies increases yearly.	Documents/ Memos, Meeting minutes Copies of Statements; Copies of document review checklists	
Output 2.2.1:	IMPROVED COORDINATION: A national coordinating mechanism and body for SLM with representatives from at least 6 sectors and levels of government is operational and includes associated capacity building and resourcing to ensure its function.	1. Number of coordinating mechanisms for SLM; 2. Number and types of members on coordinating body; 3. Adherence to SLM Sustainable Finance Plan	A clear coordinating mechanism or body for SLM policies does not exist. Sustainable Finance Plan needs to be updated.	SLM Coordinating Body established and authorized. Sustainable Finance Plan updated.	Coordinating body includes representatives from 6 sectors; Coordinating body meets at least biannually; Number of training opportunities for members of body; Financial resources to SLM increases yearly; Alignment with Sustainable Financing Plan increases yearly.	Ministerial order, Meeting minutes; Annual financial reports	
Outcome 2.2:	Increased implementation of the SLM Policy in the key sectors of land	1. Number of violations in forests; 2. Number of trained	Reported violations for forests unknown; to be determined during Inception Phase. 100%	At least 1 PAN Site with no fires for 1 year; At least 1 cohort trained in Terrestrial	Number of reported terrestrial violations (including fire) declines yearly; Number of trained	Burn mapping, annual reports from PAN sites, Training	Improving coordination will lead to improvements on the ground. Tourists will be

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
	use planning, land uses, and tourism development.	tourism professionals with terrestrial expertise; 3. Number of non-Koror tourist opportunities; 4. Type and extent of negative environmental impacts; 5. Number of dollars generated by non-Koror tourism. 6. Number of land use plans; 7. Water quality; 8. Farm productivity; Area of reforestation/ rehabilitation; 9. Perceptions of food security; 10. Number and type of "hotspots" protected. Exact indicators to be addressed during Inception Phase and developed as part of METT.	of terrestrial conservation areas negatively impacted by fires; Baseline for all other indicators to be determined during Inception Phase or by METT. 3 states with incomplete land use plans; Exact baseline for biochemical and socioeconomic parameters to be established during Inception Phase	conservation (12 people); At least 1 state with increased revenue from non-Koror tourism. "Hotspots" identified; Baseline biochemical and socioeconomic indicator status established.	terrestrial experts increases yearly (minimum of 36); Desirability of non-Koror tourism (dollars spent, number of visitors) increases yearly; 4 states have stable or decreasing environmental impact from tourism; 4 states have increasing revenue generation from tourism. 4 states with full land use plans; Stable or improving water quality tests in 100% of states with land use plans or utilizing best practices; At least 1 farm maintains or increases productivity (dollars, output, or levels of effort) using Best Agricultural Practices; Area of reforestation or forest rehabilitation increased from start to end; Responses to socioeconomic surveys show increasing positive perceptions of food security from start to finish of project. Number of unprotected "hotspots" increases from start to finish.	Workshop notes, METT results, annual PAN Fund reports from states. Maps; Net income generated by farm; METT (water quality, socioeconomic)	interested in non-Koror opportunities once they arrive in Palau. Tourists negatively impact sites outside of Palau. Refocusing some tourism to non-Koror sites will reduce impacts in Koror. **Risk**: Long-term funding sources reliant on tourism, which is inherently variable. States will be willing to design and implement SLM Plans; Communities will engage in and support SLM; Regular monitoring, evaluation and reporting will be conducted; Implementation of land use plans will lead to improvements that can be measured during the lifetime of this project. Projects can be scaled up and applied in new locations. **Risk**: Land use plans developed but not used.

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
Output 2.2.1	INCREASED LAND USE PLANNING: State SLM Plans for at least 4 states are developed, tested, and implemented	1. Number of states with full land use plans	3 - Koror, Airai, and Melekeok have some type of land use plans	Participatory land use planning underway in 4 states	4 states with full land use plans	Copies of plans	
Output 2.2.2:	IMPROVED LAND USE: Best Practices for multiple land uses are identified, tested, promoted; and capacity to implement them is built, particularly among vulnerable populations such as women and foreign farmers.	2. Number of Ridge to Reef Best Practices incorporated into SLM documents 3. Number of Demonstration Catchments established, 4. Number of conservation policies implemented; 5. Number of farmers trained in sustainable practices.	Best practices for environmental sustainability are not currently well established. Baseline is zero. No catchment in Palau has fully implemented a full set of environmental management policies; Airai state is currently the only state with a full set of policies. Baseline for farmers unknown.	Best Practice guidebook established and under joint SLM/PAN coordination Demonstration Catchment identified and coordinated activities underway. Policies identified and developed. Training programs for farmers developed.	Best practices developed and address: a) Local food production; b) protection of water resources; c) safe wastewater and solid waste systems; d) maintenance of historical cultural sites and biodiversity; e) fair and realistic access to resources and services; f) mitigating the threat from invasive alien species; g) improving climate change adaptation and resilience; h) improving sustainable forest management At least 1 Demonstration Catchment under active, coordinated, comprehensive management; Number of Best Practices/ Conservation policies implemented/adopted increases yearly; Biochemical and Socioeconomic METT scores improve from start to finish of project (water quality, food security); Lessons learned drafted. Number of farmers trained increased from start to end of project (at least 16); Area of reforestation and forest	Copies of Best Practices, Copies of SLM plans Photographic evidence, Meeting minutes, Annual reports, METT test results, Copy of lessons learned.	Promoting best practices will improve economic sustainability; Promoting economic benefits of sustainability will improve compliance with conservation initiatives; The public will be willing to learn about and adopt best practices; Identification of conservation hotspot areas will support better management of PAN sites; Hotspots will not cover entire states. Demonstration Catchment is applicable to other catchments in Palau.

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
					rehabilitation increased from start to finish of project.		
Output 2.2.3:	SUSTAINABLE TOURISM: Improved national level tourism planning and state level implementation of tourism leads to benefits realized across genders and socioeconomic levels.	1. Amount of information enabling sustainable tourism; 2. Status of National Tourism Plan; 3. Number of laws supporting sustainable tourism; 4. Number of state plans incorporating tourism.	The RISL is the primary tourist destination in Palau. 3 State SLM plans address tourism in some way (Koror, Airai, Melekeok)	National Sustainable Tourism Management Plan created. Information increased (Sustainable Harvesting rates, SFM revenue generation, tourism capacity)	4 new states include sustainable tourism in State SLM Plans. Legislation drafted. Information increases yearly (legislation gaps).	Copies of national and state plans. Copy of draft legislation. Copies of reports.	Tourism will continue to grow; Opportunities for eco-tourism and other sustainable tourism activities will expand economic opportunity outside of the Koror/RISL area; Livelihoods based on protecting biodiversity will improve biodiversity conservation; Alternative tourism activities will reduce stress on RISL sites; A National Sustainable Tourism Management Plan will improve coordination of tourism activities and help to address national level management issues in the RISL.
Outcome 3.1:	Effective coordination role by the Office of Environmental Response and Coordination (OERC) (or designated government agency) for this Project and environmental actions in Palau, including through facilitating information-sharing and two-way learning and thereby ensuring benefit sharing among a	1. OERC Capacity (# staff, expertise, partnerships); 2. Convention reporting 3. Number of mechanisms created or used for information sharing; 4. Number and type of organizations and individuals participating in two-way learning and	OERC is currently the agency responsible for coordinating implementation of environmental policy, but the agency lacks capacity to oversee implementation of multiple national environmental policies. Agency is understaffed and behind on many MEA convention outputs. Knowledge sharing between agencies and across sectors is	OERC needs assessment completed; Strategic plan updated; Staffing needs identified; Qualified staff hired and trained Number of two-way learning opportunities increased across at least 4 topics (sustainable agriculture, animal waste, earth moving, water resources)	Capacity of OERC significantly increased (# staff, levels of expertise). Overall convention reporting performance (number of reports submitted, on-time performance) increases. Number of partners assisting with convention reporting and project reporting increases from start to finish of project. At least 1 new information sharing mechanism created and used; Number and type of	List of staff and hiring dates; Memos on staff trainings; Copies of reports; Copies of convention reports and feedback forms. Copies of webpages, copies of documents produced, website tracking data, Workshop	Environmental management will improve with better coordination of policy implementation. Organizations will be willing to work on national issues regardless of their scope or mandate. **Risks**: Limited pool of available talent for many new positions leaves them unfilled. OERC staff unable to take on national coordination. People outside of Palau

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
	wide population.	information sharing.	inconsistent. Current mechanisms include infrequent Conservation Consortium meetings and emailed document reviews.		documents increased significantly from start to end of project; # downloads increases yearly; Geographic reach increases from start to finish of project; At least 80% of stakeholders participating in two-way learning and information sharing.	notes.	will continue to be interested in outcomes generated in country. **Risk**: Some stakeholders left out of the process.
Output 3.1.1:	Improved capacity of OERC to act as the National coordinating body for Palau's environmental sector.	1. Number of Partnerships/ MOUs in place; 2. Number and types of OERC staff capacity developments	Baseline is zero	OERC needs assessment completed; Number of staff increased to minimum necessary according to assessment.	OERC fully staffed according to government organizational chart; Every staff receives at least 1 training opportunity; MOUs in place covering PAN, SLM, and cross-sector partnerships.	Copies of staffing lists; Copies of MOUs.	
Output 3.1.2:	OERC effectively implementing, reporting, and evaluating Project.	1. Number of reports completed; 2. On-time performance; 3. Number of partners providing requested MOVs 4. Number of conservation professionals trained; Exact indicators of capacity to be addressed during Inception Phase and/or METT.	Baseline is zero Baseline to be determined during Inception Phase.	Reporting process and partners in place. Responsible PMU Component Manager and organizational partner designated for each MOV. Evaluation report of local capacity and needs for the Project is completed.	Mid-term and Terminal evaluation reports of Project completed; By end of project all reports are on-time and complete at 1st submission; 100% of MOVs provided by partners. Number of conservation professionals trained increases. Number of training topics meets minimum need as stated by Needs Assessment. Indicators of capacity show improving trends.	Copies of proj Workshop reports; Copies of indicator/ METT results ect reports.	Trainees will be able to turn what they learn at workshops into improved action on the ground

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
Output 3.1.3	Two-way peer learning approach fostered through participation in regional initiatives (Micronesia Challenge, Ridge to Reef, Integrated Water Resource Management, etc.) and uses multiple forms of communication and media to share lessons from the project.	1. Number of webpages developed; Number of hits and downloads. 2. Number of journal articles, 3. Number of conference presentations, 4. Number of Best Practices included in Best Practice Guidance Manual 5. Number of Demonstration Catchment reports published	Baseline is zero	Suitable webpage created with information sharing portal; At least 1 Lessons Learned document available on portal. At least 1 conference presentation Documentation of practices in Demonstration Catchment underway. Best Practices guidebook started and baseline information included.	At least 80% of data, reports, and other materials related to the Project published electronically. Number of downloads increases yearly. At least 2 journal articles or conference presentations Catchment Synthesis report complete. Best Practices document complete, with at minimum: Agriculture, Climate Change Adaptation, EBM/Ridge-to-Reef, Fire prevention, Forest rehabilitation and reforestation, Tourism, Water Protection, Gender Mainstreaming	Website tracking data Copies of articles; Copies of conference abstracts Copy of Synthesis Report. Copies of Best Practices	People will use the website. **Risk**: Internet access limited. Information generated in Palau will be unique globally and thus publishable.
Outcome 3.3:	Effective national and state coordination of PAN, SLM and associated cross-sector issues	1. Number of documents undergoing PAN/SLM/ Cross-sector review; 2. Number of competing objectives addressed and resolved; 3. Number of cross-sector violations (e.g. earth moving), species plans, and threats.	Baseline is zero	Coordination review process and checklist or criteria to review areas of alignment created, agreed, and under use.	By the end of project, at least 90% of documents produced in Palau (plans, policies, strategies, SOPs, regulations) by one of the members of the GEF 5 Project Steering Committee or related stakeholder goes through a Coordination Review and shows positive alignment with PAN/SLM/Cross-Sector issues and has no competing objectives. Number of earthmoving violations decreased from start to finish of project. Number of cross-sector species management	Copies of document review checklists; METT results, EQPB records and "State of Environment/ Coasts reports" copies of plans	Cross-sector issues can be resolved. Cross-sector and cross-boundary issues are related; Promoting interagency coordination and cooperation will help to address resource and capacity shortage issues; Use of indicators that cross habitat boundaries can support better cross-boundary management; Species management will require targeted strategies reaching across sectors and boundaries. **Risk**: True national coordination is unwieldy, difficult.

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
					activities increased from start to finish. Number and extent of cross-sector threats decline.		
Output 3.2.1:	Enable effective cross-sectoral coordination of PAN and SLM policies	1. Number of agencies with capacity to implement cross-sectoral coordination; 2. Number of individuals with capacity to enforce cross-sector regulations; 3. Number of local PAN site managers trained in cross-sector issues.	Coordination between environmental management programs is inconsistent. EQPB designated to handle cross-sector erosion and sedimentation but lacks authority and capacity to do so. 1 species management plan (Micronesian Megapodes), but no plans fully coordinate PAN, SLM, SFM, and other cross-sector considerations. No local PAN site managers are trained in cross-sector issues.	At least 1 agency (EQPB) with improved capacity to implement cross-sector issues, including revised and approved mandate. Training programs for PAN site managers completed.	Stakeholders meet at least quarterly to review PAN, SLM, and Cross-sector issues and to identify areas of alignment and coordination; Document sharing process established to move documents through a hierarchy of review (OERC, Project Management Unit, Component coordination bodies, full GEF 5 Steering Committees); Number of days for EQPB to respond to earthmoving violations decreased from start to mid-term and finish; At least 6 individuals certified to enforce Earth Moving regulations; At least 2 species management plans demonstrate full consideration of PAN, SLM, and Cross-sector issues (including cross-border management)	Meeting minutes, Copy of EQPB mandate, EQPB Board meeting records (notices of violation), Workshop training notes, copies of certifications. Copies of species plans.	Political will for improving EQPB's mandate and capacity will remain high. Cultural dictates will not limit the ability for individuals to enforce regulations.
Output 3.2.2	Streamline forest management across sectors, government levels, and within watersheds with at least 1/3 of native forest under protection and sustainable management (2100 ha in PAN sites and	1. Number and extent of threats from habitat degradation in forest; 2. Number and extent of threats from over and illegal harvesting; 3. Size and location of	Baseline indicators for threats to be determined by METT. Some native forest is protected in PAN; SFM has not been implemented; PAN site management does not consistently address SFM.	Baseline for forest health and threats to forests established. Sustainable harvesting rates established.	Number and extent of threats in forests declines from start to finish; Size of protected forest or forest actively managed under SLM for SFM is at least 2100 ha in PAN sites and 6000 ha non-PAN. Number and extent of fires decreased from start to finish of project.	METT, Copies of PAN and SLM plans, Maps of forest protection and inclusion in SLM plans. Count of fires (field notes and maps). Forest health data.	

Strategy	Desired result	Indicator	Baseline	Mid-Term Project Target	End of Project Target	Means of Verification	Assumptions, and Risks (where applicable)
	an additional 6000 ha in SFM catchments)	protected forest; 4. Number of fires 5. GEF METT (Objective 2, Part III), Area with Management Practices Applied			GEF METT Area with SFM Management Practices applied = 8,000 hectares.		
Output 3.2.3:	A national biosecurity policy agreed upon with legislation drafted and with at least 2 invasive alien species (IAS) risk reduction or eradications achieved that demonstrates a harmonized approach by PAN and SLM	1. Status of National Biosecurity Plan and Strategy; 2. Number of laws supporting biosecurity; 3. Number of IAS management strategies	National Biosecurity Plan and Strategy does not exist; Efforts to control and eradicate IAS are largely piecemeal. Gaps in laws. No IAS species control plans.	Research completed for National Biosecurity Plan completed by Year 2. METT finalized in Year 1.	National Biosecurity plan completed and in line with Micronesia Biosecurity Plan. At least 1 national law supports National Biosecurity Plan; At least 2 IAS Control and Eradication Strategies developed.	Copy of National Biosecurity Plan, Copies of state and species plans. Copy of legislation.	
Output 3.2.4:	At least 4 states have SLM and PAN plans aligned with climate change adaptation plans, with at least one modeling a gender-inclusive approach to climate change adaptation	1. Vulnerability and resiliency scores; 2. Number of communities with Climate Change Adaptation included in PAN and SLM plans	Baseline for plans is zero. Estimates of vulnerability and resiliency are not standardized.	METT includes measures for climate change adaptation, vulnerability, and resiliency.	At least 1 community with streamlined PAN and SLM shows improved vulnerability and resiliency scores.	METT, Copies of State SLM and PAN plans	

APPENDIX 5: Workplan and Timetable (by Component)

#	Category	Component	Activity	2016 Yr 1	2017 Yr 2	2018 Yr 3	2019 Yr 4
1	Planning	Component 1: PAN	National PAN Management Strategy development and alignment	x			
2			Updating of local PAN Management Plans with cross-linking sectors, sustainable finance, and Best Practices		x	x	x
3			Drafting and alignment of a PAN Communications Plan (aligned with MC)	x			
4			Development of Management Course and Certification Program		x	x	
5			Updating and review of PAN Sustainable Finance Plan		x	x	
6	Policy		Development of PAN Criteria and Ranking Systems	x			
7			Agreement and testing of METT Tools	x	x		
8			Legislative and community protection of 4 new protected areas			x	x
9			Incorporation of expanded Palau-specific conservation content into primary school science curriculum				x
10	Education		PAN Awareness activities at legislative and community levels		x	x	
11			Training of PAN Managers in Management Course/Certification Program			x	x
12			Capacity Building and Training in Best Practices for PAN Staff	x	x	x	
13	Research		Assessment of Taxonomic baseline and needs	x	x		
14			Determination of PAN site connectivity	x	x		
15			Identification of comprehensive stakeholder list	x			
16			Desktop review of all relevant legislation	x	x		
17			Identification of indicators to fill METT tools gaps	x	x		
18			Standardized assessment of PAN Site Effectiveness			x	x
19			Socioeconomic surveys of MPA perceptions	x			x
20			Implementation of citizen science / crowdsourcing activities			x	x
21	Fieldwork		Fish and bird monitoring	x	x	x	x
22			Implementation of community management actions in PAN sites			x	x
23			Testing and implementation of new income streams in pilot project sites		x	x	
24	Planning	Component 2: SLM	Development and alignment of National SLM Action Plan	x			
25			Updating of SLM Sustainable Finance Plan		x	x	
26			Updating of SFM Strategies	x	x		
27			Development of 4 state SLM Plans (land use plans)		x	x	x
28			Development of National Sustainable Tourism Development Management Plan	x	x		
29			Updating PAN and state plans with Best Practices from Tourism Plan			x	x
30			Development of Beneficial Animal Waste Strategy		x		
31	Policy		Creation and empowerment of National Coordination/Steering Body	x			
32			Development of SFM Policies			x	x
33			Identification of Best Practices for tourism, ridge-to-reef (in land use planning), agriculture, water, reforestation, forest rehabilitation, erosion control)	x	x	x	
34			Drafting of legal and regulatory framework for tourism Best Practices			x	

#	Category	Component	Activity	2016 Yr 1	2017 Yr 2	2018 Yr 3	2019 Yr 4
35			Adoption of Fire Prevention Protocols		x	x	
36			Outreach on Best Practices (multiple subjects)		x	x	x
37			Workshops on sustainable agriculture, water, and small business development			x	
38			Training in beneficial animal waste practices			x	
39	Education		Outreach on fire prevention and plans			x	
40			Assessment of tourism capacity and opportunities in key sites	x			
41			Review of legal and regulatory needs for tourism		x		
42			Monitoring implementation and effectiveness of SLM and cross-linkages		x	x	x
43			Mapping of burn areas and assessment of burn effects		x		
44	Research		Mapping and determination of PAN/non-PAN sites for ethnobotanical, archeological and historical relevance ("hotspots")	x	x		
45			Expansion of tourist opportunities on Babeldaob			x	x
46			Implementation of Best Practices for tourism, water, SFM, Climate Change, beneficial animal waste strategies, and others in Demonstration Catchment			x	x
47	Fieldwork		Expansion of sites with reforestation, rehabilitation, and erosion control		x	x	x
48			Development of species-specific management plans for 2 species				x
49	Planning		Development of eradication and control strategies for 2 IAS			x	
50			Incorporation of Climate Change Adaptation into existing plans			x	x
51			Aligning of all PAN, SLM, and cross-sector plans (at all national and local levels)		x	x	x
52			Development of Climate Change Adaptation Best Practices for inclusion in plans		x		
53			Development of National Biosecurity Policy with legal and regulatory framework			x	
54			Creation of OERC structure and signing of MOUs; creation of new staff position	x			
55			Clarification of EQPB Mandate	x	x		
56			Development of EBM Guidelines and Best Practices (ridge-to-reef)		x	x	
57	Policy	Component 3: Integration	Development and authorization of earth moving Certification Program			x	x
58			Capacity building for and empowering of Coordinating Body and staff	x			
59			Sharing of data locally and regionally via the web and presentations; data training			x	x
60	Education		Awareness activities targeting SFM, enforcement, and other cross-sector issues		x	x	
61			Monitoring of local capacity and forests; evaluation of PAN, SLM, and cross-sector implementation and filling of feedback loop	x	x	x	x
62	Research		Indicators developed for Sustainable Harvesting Rates and Ridge-to-Reef			x	
63			Development of local website and sharing arrangements		x		
64			Implementation of species-specific actions for 2 species				x
65			Forest monitoring		x	x	x
66			Translation, distribution, and use of Palauan language materials				x
67	Fieldwork		Expanding of National Botanical Garden (with trial plots)			x	x

Workplan and Timetable (by Quarter)

Component	Activity	2016 Yr 1	2017 Yr 2	2018 Yr 3	2019 Yr 4
Component 1: PAN	Fish and bird monitoring	x	x	x	x
Component 3: Integration	Monitoring of local capacity and forests; evaluation of PAN, SLM, and cross-sector implementation and filling of feedback loop	x	x	x	x
Component 1: PAN	Capacity Building and Training in Best Practices for PAN Staff	x	x	x	
Component 2: SLM	Identification of Best Practices for tourism, ridge-to-reef (in land use planning), agriculture, water, reforestation, forest rehabilitation, erosion control)	x	x	x	
Component 1: PAN	Agreement and testing of METT Tools	x	x		
Component 1: PAN	Assessment of Taxonomic baseline and needs	x	x		
Component 1: PAN	Determination of PAN site connectivity	x	x		
Component 1: PAN	Desktop review of all relevant legislation	x	x		
Component 1: PAN	Identification of indicators to fill METT tools gaps	x	x		
Component 2: SLM	Updating of SFM Strategies	x	x		
Component 2: SLM	Development of National Sustainable Tourism Development Management Plan	x	x		
Component 2: SLM	Mapping and determination of PAN/non-PAN sites for ethnobotanical, archeological and historical relevance ("hotspots")	x	x		
Component 3: Integration	Clarification of EQPB Mandate	x	x		
Component 1: PAN	Socioeconomic surveys of MPA perceptions	x			x
Component 1: PAN	National PAN Management Strategy development and alignment	x			
Component 1: PAN	Drafting and alignment of a PAN Communications Plan (aligned with MC)	x			
Component 1: PAN	Development of PAN Criteria and Ranking Systems	x			
Component 1: PAN	Identification of comprehensive stakeholder list	x			
Component 2: SLM	Development and alignment of National SLM Action Plan	x			
Component 2: SLM	Creation and empowerment of National Coordination/Steering Body	x			
Component 2: SLM	Assessment of tourism capacity and opportunities in key sites	x			
Component 3: Integration	Creation of organizational structure and signing of MOUs; creation of new staff position in government hierarchy	x			
Component 3: Integration	Capacity building for and empowering of Coordinating Body and staff	x			
Component 1: PAN	Updating of local PAN Management Plans with cross-linking sectors, sustainable finance, and Best Practices		x	x	x
Component 2: SLM	Development of 4 state SLM Plans (land use plans)		x	x	x
Component 2: SLM	Outreach on Best Practices (multiple subjects)		x	x	x
Component 2: SLM	Monitoring implementation and effectiveness of SLM and cross-linkages		x	x	x
Component 2: SLM	Expansion of sites with reforestation, rehabilitation, and erosion control		x	x	x
Component 3: Integration	Aligning of all PAN, SLM, and cross-sector plans (at all national and local levels)		x	x	x
Component 3: Integration	Forest monitoring		x	x	x
Component 1: PAN	Development of Management Course and Certification Program		x	x	
Component 1: PAN	Updating and review of PAN Sustainable Finance Plan		x	x	

Component 1: PAN	PAN Awareness activities at legislative and community levels		x	x	
Component 1: PAN	Testing and implementation of new income streams in pilot project sites		x	x	
Component 2: SLM	Updating of SLM Sustainable Finance Plan		x	x	
Component 2: SLM	Adoption of Fire Prevention Protocols		x	x	
Component 3: Integration	Development of EBM Guidelines and Best Practices (ridge-to-reef)		x	x	
Component 3: Integration	Awareness activities targeting SFM, enforcement, and other cross-sector issues		x	x	
Component 2: SLM	Development of Beneficial Animal Waste Strategy		x		
Component 2: SLM	Review of legal and regulatory needs for tourism		x		
Component 2: SLM	Mapping of burn areas and assessment of burn effects		x		
Component 3: Integration	Development of Climate Change Adaptation Best Practices for inclusion in plans		x		
Component 3: Integration	Development of local website and sharing arrangements		x		
Component 1: PAN	Legislative and community protection of 4 new protected areas			x	x
Component 1: PAN	Training of PAN Managers in Management Course/Certification Program			x	x
Component 1: PAN	Standardized assessment of PAN Site Effectiveness			x	x
Component 1: PAN	Implementation of citizen science / crowdsourcing activities			x	x
Component 1: PAN	Implementation of community management actions in PAN sites			x	x
Component 2: SLM	Updating PAN and state plans with Best Practices from Tourism Plan			x	x
Component 2: SLM	Development of SFM Policies			x	x
Component 2: SLM	Expansion of tourist opportunities on Babeldaob			x	x
Component 2: SLM	Implementation of Best Practices for tourism, water, SFM, Climate Change, beneficial animal waste strategies, and others in Demonstration Catchment			x	x
Component 3: Integration	Incorporation of Climate Change Adaptation into existing plans			x	x
Component 3: Integration	Development and authorization of earth moving Certification Program			x	x
Component 3: Integration	Sharing of data locally and regionally via the web and via presentations; data management training			x	x
Component 3: Integration	Expanding of National Botanical Garden (with trial plots)			x	x
Component 2: SLM	Drafting of legal and regulatory framework for tourism Best Practices			x	
Component 2: SLM	Workshops on sustainable agriculture and water			x	
Component 2: SLM	Training in beneficial animal waste practices			x	
Component 2: SLM	Outreach on fire prevention and plans			x	
Component 3: Integration	Development of eradication and control strategies for 2 IAS			x	
Component 3: Integration	Development of National Biosecurity Policy with legal and regulatory framework			x	
Component 3: Integration	Indicators developed for Sustainable Harvesting Rates and Ridge-to-Reef			x	
Component 1: PAN	Incorporation of expanded Palau-specific conservation content into primary school science curriculum				x
Component 3: Integration	Development of species-specific management plans for 2 species				x
Component 3: Integration	Implementation of species-specific actions for 2 species				x
Component 3: Integration	Translation, distribution, and use of Palauan language materials				x

APPENDIX 6: Key deliverables and benchmarks

Expected Outcome	Project Activities	Hard Deliverables	Benchmarks	Timeframe	Lead Party
1.1 Improved Design, Evaluation, and Implementation of the PAN leads to increased engagement by states, improved coverage of sites, species, and ecosystem functions, and increased conservation effectiveness.	1.1.1a: Develop a National PAN Management Strategy that is supportive of national SLM policies, uses existing and proposed systems for criteria and ranking of existing and upcoming PAN Sites with specific consideration of the 4 cross-sector issues (SFM, IAS, Climate Change, and R2R), uses standards criteria for ranking species protection needs, models PAN site connectivity, and considers national, state and local level natural resource management policies, laws, regulations and agency mandates	Strategy, National PAN Management Plan (including SOPs that meet PAN regulations); List, PAN Management/GEF 5 Steering Committee Membership Plan, PAN Communications Plan; List, stakeholder groups in each state (9) Report, PAN Criteria and Ranking Systems Research on ranking systems in 2nd quarter. Presented at Quarter 3 meeting. Report, PAN Site Connectivity, Priorities, Gaps, and Tools; Maps - PAN (existing, proposed, final); Report, Relevant legislation summary	Initial strategic workshop held in conjunction with Project Inception Workshop; Quarterly meetings; Draft strategy developed by end of Year 1; Agreement within 3 months Draft plan presented at 6-month Biannual GEF 5 Steering Committee Maps developed by end of Year 1 List of laws to be reviewed, gathered, collected by 6 months	Year 1 Connectivity – Years 1-2	PAN Office, PCS PALARIS, PICRC, BNM
	1.1.1b: Following development of a communication plan, work with PAN Site Managers to update individual PAN site management plans to reflect National PAN Management Strategy	Plan, Updated local PAN Management Plans (PAN Sites) (5)	Exact order of states to be determined at Project Inception Workshop; 1 in Year 2, 2 in Year 3, 2 in Year 4. Each state begins with a Letter from Governor giving Planning Teams authority to update plans (if not already in place); Changes adopted by	Years 2-4	PAN Office

			resolution		
	1.1.1c: Consult subject experts and local naturalists to conduct baseline assessment of all PAN MPAs in Palau, including ecological surveys, socio-economic surveys and outreach and education campaigns. This broad scale pilot study will provide valuable information on the effectiveness of Palau's PAN network, and if Palau is meeting the Micronesia Challenge goals of "protecting effectively at least 30% of nearshore habitats"	Data, ecological and socio-economic; Tracking data, outreach and education (number reached, information presented)	Existing data identified and gathered and incorporated into draft report by end of Year 1	Years 1-2	PICRC
	1.1.1d: In support of the GTI, consult subject experts and local naturalists, conduct field surveys, and employ available genetic evaluation resources to conduct a Taxonomic Needs Assessment of Palau's terrestrial and aquatic biodiversity	Report, Taxonomic assessment; Data - genetic evaluations	Sites and process agreed at 6-month mark; data collection finished by 18 months	Years 1-2	PICRC, BNM
	1.1.2a: Identify and evaluate existing relevant monitoring and reporting programmes and other tracking tools (such as from the R2R programme, the Micronesia Challenge, and UNEP), and assess the existing body of research, to build a unfied terrestrial, marine, and wetland METT for PAN Sites. Consider down-scaled climate modelling (including impact on coral reef systems), resilience indicators for assessment and decision support. Include procedures for conducting a Protected Area Management Effectiveness (PAME) evaluation.	Report, METT Tools (final agreed), with standard ranking system for biodiversity Multiple forms (reports, meeting minutes, MOUs), METT (documents with protocols, data, databases) – Marine, Terrestrial, Socioeconomic	Information collected beforehand and proposed METT presented at Project Inception Workshop Draft all indicators, Year 1; Test and agreement, Year 2	Year 1 Years 1-2	PICRC, BNM
	1.1.2b. Test the METT in 9 pilot sites and generate PAME Evaluations.	Data, METT; Report, PAN Site Management	Test PAME using METT by end of Year 2, apply to sites in Years 3-4. Order of sites determined at mid-term Project Workshop	Years 3-4	PAN Office

		Effectiveness (PAME)			
	1.1.2c: Identify percentages of Palau's terrestrial area and marine area that are currently part of effectively managed protected areas	Report, protected areas and PAN Sites that contribute to Micronesia Challenge criteria	Identify criteria for assessment in Year 1	Year 2 and Year 5	PALARIS, PICRC, BNM
	1.1.2d: Support the Northern Reef Fisheries Initiative pilot project as a locally driven socio-economic METT, incorporating community-based monitoring of PAN	Report, Northern Reef Fisheries Assessment Report	Community participants agreed by Quarter 2 of 2nd year	Years 2-3	PICRC
	1.1.3a: PAN site management plans updated to address IAS, climate change, SFM, Ridge to Reef planning, and site plans are in alignment with national policy and standardized criteria	Plans, Management (9 sites)	States identified at Inception Workshop	Years 3-4	PCS
	1.1.3b: Work with states to nominate and approve at least 4 new PAN sites, or expand existing PAN sites, to add at least 95,000 ha of marine area and 6300 ha of terrestrial area, increasing the area of key ecosystems and the number of states currently protected in the PAN	Legislation, 4 new PAN Sites; Plans, Management Plans - 4 new sites; List, PAN Sites and States	Priority sites selected at end of Year 1. Approach local governments in Year 2. Resolutions and planning teams in place and ready to go by start of Year 3.	Years 3-4	PAN Office
1.2: PAN management capacity (engagement, training, and financial) and coordination improved across sectors and across governance levels and results in benefits across genders and for marginalized populations in outlying states.	1.2.1a: Conduct socio-economic surveys of public perception and key stakeholders of MPAs in Koror, Airai and 4 other states	Data, Socioeconomic Surveys (6 states); Report, MPA Perceptions	Survey instrument developed and agreed by 6 months	Year 1, Year 4	PICRC
	1.2.1b. Develop and implement a PAN communication plan with the goal of establishing permanent outreach activities to build public awareness and support of PAN	Plan, PAN Communications Plan	Working groups review Palau MC Communications plan for applicability/overlap with PAN at first quarter meeting of Year 2	Years 2-3	PAN Office, PAN Fund, PCS, Micronesia Regional Office

	1.2.1c: Building on the success of eBird, identify other online databases to enable citizen science crowdsourcing as a means to participate in biodiversity and ecosystem monitoring	Data, eBird; Data, online database for crowd sourced data	Online systems online and running by end of Year 3; training at start of Year 4	Years 3-4	BNM
	1.2.1d: Work with MOE to integrate Palau-specific biodiversity and island ecosystem topics into national curriculum standards	Outreach materials - Palau specific curriculum content	Materials and priorities identified and gathered by end of Year 3	Year 4	MOE, PCS, PAN Office
	1.3.2c: Conduct capacity building training for PAN staff targeting improvement of monitoring, reporting and data management	Workshop notes, PAN Management; Document/Memos - Data management Training for PAN and other staff; Training, 3 PAN staff and 12 Other Staff trained	Training program developed by end of Year 2. Identify capacity needs by end of Year 1; training in following years. Proposal prepared beforehand and agreement on who is trained agreed at Inception Workshop	Years 2-4 Years 1-3	PICRC, BNM, PAN Office
	1.3.1b: Develop a conservation management course/certification program through a partnership with conservation sector and PCC professionals	Curriculum, Management Course and Certification Program; 2 cohorts (12 people each) trained	Program developed Years 2-3; Training 3-4	Years 2-4	PAN Office, PCC
	1.2.3a: Commission a formal review and update of the PAN Sustainable Financing Plan and actual funding conditions of the PAN Fund (Green Fee and grants), to include a monitoring and reporting program.	Report, PAN Revenue Assessment; Report, PAN Sustainable Financing Plan Efficacy	Consultant TOR drafted at end of Year 1.	Year 2	PAN Office, PAN Fund
	1.2.3b. The PAN Fund will work with states to identify new and improve existing income streams, including	Report, Existing funding streams and improved funding streams for	Baseline reserve amount presented at mid-project workshop.	Years 3-4	PAN Fund

	building reserves to support ongoing PAN needs through economic downturns, as well as alignment with new and existing SLM Plans.	states with PAN sites (3)			
	1.5.2c: Develop strategies and implement pilot projects to diversify funding for Ngardok Nature Reserve, the Rock Islands Southern Lagoon area and the Ngarchelong Northern Reefs area to include eco-tourism as part of larger state-level tourism portfolios with a view to having a wider application to other sites and states in Palau	Plan, Updated PAN Management Plans include eco-tourism information and sustainable financing analysis	Consultant completes sustainable financing analysis (options and baseline) by end of Year 2 List of possible funding diversification options fully developed by end of Year 3	Years 2-3	PAN Fund, Melekeok, Koror, Ngarchelong
	1.5.3a: Develop a communication plan in alignment with the Micronesia Challenge communication strategy to build awareness of the updated PAN Sustainable Financing Plan, and gain endorsement by the PAN Board	Plan, Updated PAN Sustainable Finance Plan	Stakeholder meeting about content half way through Year 2	Year 2	PAN Office, PAN Fund
Project Component 2: Effective Implementation of Palau's Sustainable Land Management (SLM) Policy					
2.1 Improved and effective planning, alignment, and coordination of the Palau SLM Policy	2.1.1a: Develop and implement a National SLM Action Plan that incorporates ecosystem-based management practices and is aligned with the National PAN Management Strategy	Plan, National SLM Action Plan; Document/Memos, PAN and SLM Policy Statements Report, Coordination Review/Process for ensuring PAN/SLM Linkages and streamlining competing objectives based on SLM mandate	Every monthly meeting includes a report on progress of plan. Outline drafted by end of 1st quarter Wording for PAN linkage mandate drafted by quarter 3.	Year 1	MNRET, PCS
	2.2.1b: Update existing SLM Sustainable Financing plan	Updated SLM Sustainable Finance Plan	Consultant aligns list of desired outputs from all sustainable financing outcomes by 2nd	Year 2	MNRET

			quarter of Year 2		
	2.2.1c: Review and update SFM strategy, and develop policies to enable implementation of SFM practices	Report, Sustainable Harvesting Rates; Report, SFM Revenue generation; Strategy, SFM Policy	Research for reports completed by end of Year 1	Years 1-2	MNRET, BOA
	2.2.1a: Identify an existing body or create a national steering committee responsible for coordinating implementation of SLM and SFM activities across sectors, with OERC (or BOE) providing leadership to the committee, and members from at least 6 sectors	List, SLM National Coordination Body Membership	Membership agreed by end of 1st quarter, Ministerial order by 2nd quarter	Year 1	MNRET
2.2 Increased implementation of the SLM Policy in the key sectors of land use planning, land uses, and tourism development.	2.2.1a: Develop and implement State SLM Plans (with evaluation) in alignment with National SLM Policy in at least 4 states	Plans, SLM (State Land Use Plans/Master Plans) (4 states)	Planning teams formed by 18 months. Regular monthly meetings occur thereafter. Drafts of SLM plans finished by Year 3. Testing and implementation in Year 4.	Years 2-4	MNRET, PCS, state governments
	2.2.2a: (Agriculture) Develop Best Practices in Agriculture and conduct workshops to build capacity.	Best Practices documents - Agriculture	Overall Guidebook started by end of Year 1 with baseline/ existing information gathered. New additions made every six months.	Years 1-4	OERC, PCS
	2.2.2b: (Water Resources) Expand existing water conservation best practice guidelines and public awareness programme	Best Practices documents - Water	Overall Guidebook started by end of Year 1 with baseline/ existing information gathered. New additions made every six months.	Years 1-4	OERC, PCS
	2.2.2c: (Reforestation, Erosion, SFM) Scale up lessons learned from Ngardok Nature Reserve and Ngarchelong State reforestation and erosion control initiatives to produce reforestation and rehabilitation guidelines, and expand practices into at least 3	Field notes, Forest monitoring	Sites selected by quarter 2 of Year 2. Data collection by end of Year 3. Data analyzed and utilized by end of Year 4.	Years 2-4	BOA, BNM, PALARIS

	terrestrial PAN sites and 1 catchment area. Update SFM Strategies for Palau.				
	2.2.2d: (Fire) Develop fire prevention protocols such as fire breaks and green belts, identify and map at least 4 priority fire management zones in both protected and non-protected areas, and implement and test the protocols in these areas	Outreach materials, Fire prevention; Outreach materials - translated	Materials selected for translation identified by end of Year 3. Translators identified by end of Year 3.	Year 4	PCS, PICRC, BOA, BNM
	2.2.2e: (Rare sites) Conduct studies and map and overlay key natural and cultural features, significant ethnobotanical sites, archaeological, historical, or otherwise unique or special sites to identify conservation hotspots that may need to be targeted for protection (and otherwise not captured in PAN).	Maps of, archeology, historical significance, ethno botany, other important features	Other topics/features to be mapped identified at Inception Workshop. Field work completed by 3rd quarter of Year 3.	Year 2	BNM, PALARIS, BOA
	2.2.2f: (Tourism) Develop sustainable tourism guidelines and best practices communication materials, and conduct outreach to relevant sectors	Plan, National Sustainable Tourism Development Management Plan	New research (including into best practices, assessment of infrastructure) completed by end of Year 1. Assessment of baseline completed by Year 1.	Year 1-2	BOT, PVA, Tri-Org
	2.2.2g: (Coordinated SLM Demonstration) Identify, assist, and promote at least 1 Demonstration Catchment with policies in place to implement an integrated SLM approach, including Ridge to Reef ecosystem management	Field notes, Demonstration Catchment; Report, Demonstration Catchment	Bibliography and Outline for synthesis report completed by quarter 1.	Year 4	PCS
	2.2.3a: Assess tourism capacity development needs and opportunities to improve tourist experience and promote sustainable tourism in different regions of Palau: a) Koror/RISL; b) Babeldaob; c) More accessible outer islands (Peleliu,	Report, Tourism Capacity	Research report outline developed by mid-year meeting	Year 1	BOT, PVA, Tri-Org

	Kayangel, Angaur)				
	2.2.3b: Draft a National Sustainable Tourism Management Plan that will a) Address key management issues in the RISL on a national level; b) Expand interest, access and activities available for tourists on Babeldaob; c) Identify best management practices to support SLM in tourism-related industries across sectors (i.e. coordination with PAN, improvement of diving experience, fishery/reef management, local food access, etc.); d) Develop a strategy for improving infrastructure needed to support anticipated growth in the tourism industry using SLM principles	Plan, National Tourism Report, Tourism Best Practices	Best Practices identified by end Year 2	Years 2-4	BOT, PVA, Tri-Org
	2.2.3c: Draft legal and regulatory framework necessary to support implementation of Palau's National Sustainable Tourism Management Plan	Report, gaps in tourism legislation; Legislation, Draft legislation and regulations for sustainable tourism	Report on gaps done by quarter 2. Draft legislation done by end of Year 3.	Year 3	BOT
	2.2.3d: Design and implement sustainable tourism management plans in at least 4 states: Koror (targeting the RISL); Ngarchelong (Northern Reefs); Melekeok (Ngardok Nature Reserve); and one other state	Plans, SLM (State Land Use Plans/Master Plans) (4 states) - include tourism information	4th state decided at Mid-term project workshop. Northern Reefs and Ngardok finished by end of Year 3.	Years 3-4	BOT, PCS, Tri-Org, Koror, Ngarchelong, Melekeok
Project Component 3: Integrated Coordination, Mainstreaming & Project Management					
3.1: Effective coordination role by the Office of Environmental Response and Coordination (OERC) (or designated	3.1.1a: Conduct a capacity needs assessment of OERC (including staffing needs) to identify obstacles to performing role as executing agency	Report, OERC Needs Assessment Document/Memos,	Identify 3rd party assessor by 1st quarter. Positions advertised by 3rd	Year 1	OERC

government agency) for this Project and environmental actions in Palau, including through facilitating information-sharing and two-way learning and thereby ensuring benefit sharing among a wide population.	for environmental management, and develop strategies and actions for addressing these issues and provide training as necessary.	Updated Government Staff Hierarchy; Records, New staff hires Document/Memos, OERC Staff Training record	quarter. List of desired training needs developed by 1st quarter of second year.		
	3.1.2a: Develop project implementation organizational structure, MOUs for project implementing partners, and protocols and timeframes for reporting on Project Activities	Document/Memos, MOUs, Project Partners	Organizational structure approved by Quarter 1. MOUs drafted by Quarter 2. Contracts signed and payments received by Quarter 1.	Year 1	OERC
	3.1.2b: Compile and review progress reports, evaluate Project implementation, and complete reports on progress.	Reports, GEF Progress	M&E Plan agreed at Inception Workshop	Quarterly	OERC
	3.1.3a: Identify or create a website where Project materials can be published, stored and maintained electronically for access by stakeholders, the public and other interested entities and post communications products to the website that illustrate Project progress and outcomes (including reports on Demonstration Catchments and Best Practices). Publish as necessary in other forms of media (e.g. paper) and share with R2R and other partners.	Website, Information Sharing page; Website, Web-based data portal Report, Lessons learned	Identify web designer by end of Quarter 1. Outline for content finalized by Quarter 2. 1st lesson learned sent for peer review at end of Year 3.	Year 2 Year 3-4	MNRET PCS, TNC
	3.1.3b: Support the development of peer-reviewed articles and sharing of inforamation at relevant national and international conferences	Publications, Peer reviewed journal articles; Document/Memos, Record of presentation at conferences (2)	1st conference presentation by end of Year 2. First submission to peer-reviewed journal by end of Year 2.	Years 1-3	PIRCR, BNM

3.2: Effective national and state coordination of PAN, SLM and associated cross-sector issues	3.2.1a: Review EQPB's mandate in order to identify and clarify the agency's role in SLM and identify opportunities to incorporate SLM into the earth moving permitting process	Document/Memos, EQPB Mandate Agreement	EQPB Board meeting agenda includes action items on mandate by quarter 2. Review of baseline conditions, including gaps in regulations completed in Year 1.	Years 1-2	EQPB
			As liaison between this project and the R2R and IWRM programmes and as a member of the GEF 5 Project Steering Committee, EQPB completes a State of the Environment/State of the Coasts report	Year 3	
	3.2.1b: Develop a programme to train and certify PAN site officers to enforce EQPB regulations to assist with erosion and sedimentation control	Curriculum - Earth Moving Certification Program; Training, Officers trained (6)	Content for training program developed by end of Year 3. First cohort by quarter 1 of Year 4.	Years 3-4	EQPB, PAN Office
	3.2.1c: Develop guidelines for cross-boundary management of SLM/PAN issues, such as the continuous forest ecosystem linking Ngiwal and Melekeok States via Ngardok Nature Reserve	List, Coordination review checklist, criteria, or process and topics to address Document/Memos, Final decisions on issues with competing objectives; Meeting minutes, Biannual Full GEF 5 Steering Committee meetings; Meeting minutes, Monthly project managers; Meeting minutes, Quarterly Coordination Bodies	Identify areas to focus on cross-boundary issues by end of Year 1. Set up initial meetings by quarter 2 of Year 2. Research on guidelines by end of Year 2. Cross-sector linkages included as agenda item at every meeting.	Years 1-3	OERC, MNRET

	3.2.1d: Develop species-specific management plans for key vulnerable species, linking PAN, SLM and SFM management practices	Plans, Species Management Plan (2)	Species selected at mid-project workshop.	Year 4	MNRET
	3.2.2a: BOA Develop and pilot a forest monitoring program using PAN, SLM and FIA standards based on reference plots from FIA as focal points for monitoring transects, and align and assist with PAN METT in 4 sites.	Data, Forest Report, Forest Monitoring Program	Test program methods in Year 2. Align to PAN METT in Year 3	Years 1-3	BOA
	3.2.2b: Develop and implement localized training materials to support improved forestry, terrestrial, and associated marine PAN management and monitoring capacity (including data collection, entry and analysis to support monitoring, evaluation and reporting of SLM/SFM/PAN management initiatives)	Workshop Notes and Reports, Sustainable Agriculture, Beneficial Animal Waste Practices, Earthmoving, Water Resources Workshops (4)	Project workshops held every 6 months starting in month 18. Additional workshop needs identified at yearly evaluation	Years 2-4	OERC, PCS
	3.2.2d: Expand the national botanical garden and develop a botanical partnership network, including the botanical garden and at least 4 PAN areas, 4 existing nurseries, and 1 catchment area to coordinate conservation and cultivation of botanical species and build capacity across organizations	Maps, Botanical Gardens Management Plans, Updated by States (4)	Identify botanical garden needs by end of Year 1	Years 1-3	BNM, BOA
	3.2.3a: Develop a National Biosecurity Plan and Strategy for managing existing invasive alien species, including Living Modified Organisms (LMO), and preventing the introduction and successful colonization of new alien species, including legal and regulatory framework	Strategy, National Biosecurity Policy Legislation, National Biosecurity Policy Draft Legislation and Regulations	Working group formed and authorized by end of Year 1. Research completed by Quarter 2. Gaps identified by end of Year 2. Legal consultant contracted by quarter 1 of Year 3.	Year 2 Year 3	MNRET

	3.2.3b: Establish ranking criteria and identify the top 5 IAS that need to be eradicated or controlled, including evaluation of Palau's capacity to effectively eliminate or manage these species (capacity to survey, map, control, and potential for eradication) and agree on eradication strategies to pursue for 2 species.	Strategy, IAS Eradication and Control (2 species); Plans, State PAN Site Management Plans with updated IAS sections (2)	Species selected by quarter 2 of Year 3. Eradication strategies completed by end of Year 3.	Years 3-4	MNRET
	3.2.4a: Develop and implement climate change adaptation strategies integrating SLM and PAN management ideals with State SLM Plans and national plans.	Best Practices, Climate Change Adaptation Plans, State PAN Site Management Plans with updated Climate Change sections (2) and at least 1 considering gender issues	Best Practices identified by Year 2	Years 3-4	Climate Change Office, MCCA

APPENDIX 7: Costed M&E Plan

Type of M&E activity	Responsible Parties	Budget from GEF	Co-finance	Time Frame
Inception Meeting	Project Manager (PM) and Project Management Unit (PMU)	3,000	4,000	Within 2 months of project start-up
Inception Report	PM and PMU	0	2,000	1 month after project inception meeting
Measurement of project indicators (outcome, progress and performance indicators, GEF tracking tools) at national and global level	PM and PMU	24,000	10,000	Outcome indicators: start, mid and end of project Progress/perform. Indicators: annually (Cost incorporated in project components and management budget)
Semi-annual Progress/ Operational Reports to UNEP	PM and PMU	0	3,000	Within 1 month of the end of reporting period i.e. on or before 31 January and 31 July (Cost incorporated in project components and management budget)
Project Steering Committee meetings	PM and PMU; UNEP TM	4,500	20,000	At least once a year, and via electronic media per request and need
Reports of PSC meetings	PM and PMU	0	5,000	Within 1 month after PSC meeting
PIR	PM and PMU	0	3,000	Annually, part of reporting routine (Cost incorporated in project components and management budget)
Monitoring visits to field sites	PM and PMU; UNEP TM	20,000	15,000	As appropriate
Mid Term Review/Evaluation	UNEP TM and EO	30,000	5,000	At mid-point of project implementation
Terminal Evaluation	UNEP EO	30,000	5,000	Within 6 months of end of project implementation
Audit	PM and PMU	20,000		Annually
Project Final Report	PM and PMU	0	2,000	Within 2 months of the project completion date (Cost incorporated in project components and management budget)
Co-financing report	PM and PMU	0	2,000	Within 1 month of the PIR reporting period, i.e. on or before 31 July (Cost incorporated in project components and management budget)
Publication of Lessons Learnt and other project documents	PM and PMU	4,000	30,000	Annually, also part of Semi-annual reports & Project Final Report
Total M&E Plan Budget		**135,500**	**106,000**	

APPENDIX 8. Summary of Reporting Requirements and Responsibilities.

Report	Number of reports expected	Frequency	Person/Agency Responsible
Inception report	1	Once, at completion of Inception Workshop	Executing Agency, UNEP CO
Quarterly progress and financial reports	16	4 per annum. At end of each quarter	Executing Agency
Annual reports	4	One per annum	Executing Agency
Project Reports and Project Implementation Reports	8 4 PIR's and 4 six-month progress reports	Twice per annum	Executing Agency, UNEP CO
Audit reports	4	One, at end of each year	Auditor(s)
Mid-term evaluation report	1	Once, mid-way through project implementation	Task Manager
Terminal evaluation report	1	Once, at end of project	UNEP EO
End of project report	1	Once, at end of project	Executing Agency
Technical reports*	8+	At least two each year	Executing Agency, UNEP CO, UNEP GEF
Project publications*	4+	At least one per year, to include at least one State of the Environment/Coasts by the end of Year 3**	Executing Agency, UNEP CO

*Technical reports and project publications may be prepared on key areas of activity during the course of the project. They should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project and project sites and will represent, as appropriate, the project's substantive contribution to the specific sites, regions and sub-regions and could be used in efforts to disseminate relevant information and best practices at local, national and international levels.

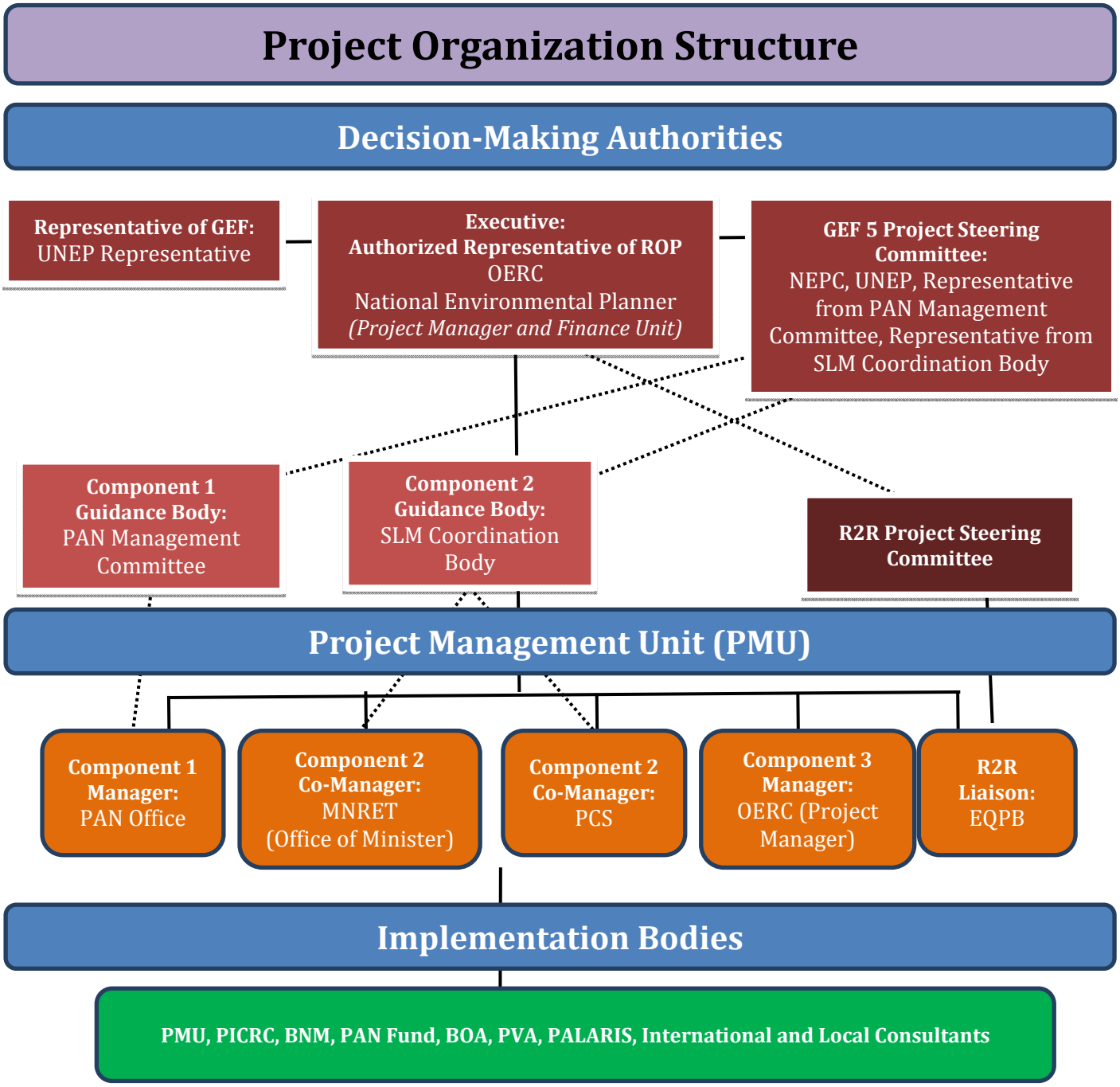
** This report will be prepared by the Palau representative to the R2R Programme (EQPB) but funded and printed by the R2R project

APPENDIX 9: Decision-making flowchart and organogram

Management arrangements are detailed in **Section 4**. Overall project supervision will be done by UNEP, and final approval for changes to the budget or logframe will rest with UNEP. In country, OERC will have final responsibility for decisions about implementation on a daily basis. The full GEF 5 Steering Committee will provide at the least annual advice and guidance on progress of the Project, in addition to its biannual role in resolving cross-sector conflicts. OERC will set Terms of Reference for consultants and contracts. Component Managers will have subsequent responsibility for ensuring that activities on the ground meet these terms.

Final decision flowchart:
UNEP → OERC → Component Managers → In-the-field implementers

Figure A10-1. Organogram of Management Arrangements



APPENDIX 10: Terms of Reference

Terms of Reference – Project Manager

The Project Manager may be placed at OERC and will act as the head of the Project Management Unit. He/she will be responsible for all aspects of project management and coordination in collaboration with the Component 1, 2, & 3 Managers as well as other concerned stakeholders to ensure adequate project implementation.

The Project Manager will also perform a range of technical tasks in support of the projects for the components, particularly for Component 3, including oversight and coordination. The Project Manager will be employed by and report to OERC and the PMU. Her/his main duties and responsibilities will include:

Tasks:

- Establish, staff and equip an effective Project Management Unit that will also act as the Secretariat to the GEF 5 Project Steering Committee.
- Define the operational, administrative and financial working procedures of the PMU
- Act as Component 3 Manager
- Draft TORs and define contractual arrangements for sub-contracting and consultants
- Track M&E indicators and prepare evaluation reports, including financial reports
- Oversee annual work planning of Component Managers
- Plan and implement the Inception Workshop and prepare reports
- Ensure the full compliance of all aspects of project implementation with UNEP's operational, administrative and financial management procedures (guidelines to be provided by UNEP).
- Prepare annual PIR (Programme Implementation Reports), including updating of GEF tracking tools and any other reporting requirement for the GEF, as per instructions provided by the UNEP
- Provide technical and managerial support and guidance to the Component Management teams towards the implementation of their projects.
- Review and approve technical and financial reports (including annexes such as technical reports and other in-country project deliverables specified in the executing partners' TORs). The approval of these reports will be the trigger for the issuance of successive payments to executing partners
- Coordinate and update the project's M&E framework and ensure its adequate implementation with inputs from all project executing partners.
- Provide support to field missions by UNEP staff as well as to Mid-Term and Final External Evaluations.
- Carry out periodical field missions to project sites as part of the overall supervision of project implementation.
- Chair in organizing and implementing SC meetings.
- Present reports on project progress at annual Project Management meetings (for review and endorsement).

- Prepare and implement project's visibility plan to ensure adequate dissemination of project results and lessons learned.
- Review relevant experience from other similar initiatives worldwide and draw lessons that may be of interest to or applied within Palau project
- Regularly review and convey to teams cutting edge methodologies, findings and experiences in relevant innovative applications generated by other UNEP and GEF initiatives, as well as by other projects implemented by other agencies (i.e. NGOs, Academic Institutions, Development Agencies, Multi-lateral Development Banks, National Governments etc.)
- Facilitate the continuous exchange of information, consistency of approaches, and technical cross-fertilization between technical teams
- Develop and implement a formal and informal training and capacity building programme for selected teams and for OERC
- Provide technical advice, support and guidance with respect to all technical aspects of the relevant components.
- Act on behalf of the National Environmental Planner (OERC head) to liaise with the UNEP Task Manager on a regular basis; keep both parties fully informed.

Profile: Minimum 5 years of experience in project management and implementation, preferably with UN-implemented projects; academic background and relevant direct experience related to the technical scope of the project (PAN, SLM, Cross-cutting issues), as well as engagement with international environmental processes; experience in environmental governance and capacity building issues is highly desirable; leadership as well as strong management and interpersonal skills; computer skills; strong communication and presentation skills; high flexibility and capacity to work under pressure. Full command of the English and Palauan languages is required for this post.

APPENDIX 11: List of document and tangible deliverables to be produced during this project

- Guidance Manual, Best Practices (Compilation)
    - Best Practices – Agriculture
    - Best Practices – Climate Change adaptation
    - Best Practices – EBM / Ridge-to-Reef (erosion control in land use planning, SFM – combined document)
    - Best Practices – Fire prevention protocols
    - Best Practices – Forest rehabilitation and reforestation
    - Best Practices – Tourism
    - Best Practices – Water Protection (erosion control)
    - Best Practices – Gender Mainstreaming
    - List, Technical Assistance Contacts
- Guidance Document, METT (Biological, chemical, physical, biodiversity, water; Marine and Terrestrial; Socioeconomic; Project Performance)
    - Protocols, descriptions, explanations
    - Data Sheets
    - Data
    - Analyses and Reports
- Curriculum, Earth Moving Certification Program
- Curriculum, Management Course and Certification Program
- Data (progress tracking), outreach and education (number reached, information presented)
- Data, eBird
- Data, genetic evaluations – Taxonomic assessment
- Data, online database for Crowd sourced data
- Data, Socioeconomic surveys (6 states)
- Document/Memos, Data Management Training for PAN and other staff
- Document/Memos, EQPB Mandate Agreement
- Document/Memos, Final decisions on issues with competing objectives
- Document/Memos, Guidance on Gender Mainstreaming
- Document/Memos, MOUs, PCC-Project (Certification programs)
- Document/Memos, MOUs, Project Partners
- Document/Memos, OERC Staff Training record
- Document/Memos, PAN and SLM Policy Statements
- Document/Memos, Record of presentation at conference (Abstract, PPT, or Poster), Demonstration Catchment
- Document/Memos, Record of presentation at conference (Abstract, PPT, or Poster), Lessons Learned
- Document/Memos, Updated Government Staff Hierarchy
- Field notes, Demonstration Catchment
- Field notes, Forest monitoring
- Legislation, 4 new PAN Sites
- Legislation, Draft legislation and regulations for Sustainable Tourism
- Legislation, National Biosecurity Policy Draft Legislation and Regulations
- List, Coordination review checklist, criteria, or process and topics to address
- List, PAN Management/GEF 5 Steering Committee Membership
- List, PAN Sites and States
- List, SLM National Coordination Body Membership
- List, stakeholder groups in each state (9)
- Maps, archeology, historical significance, ethnobotany, other important features
- Maps, Burned areas
- Maps, PAN (existing, proposed, final)
- Meeting minutes, Biannual Full GEF 5 Steering Committee meetings

- Meeting minutes, Monthly project managers
- Meeting minutes, Quarterly Coordination Body meetings
- Outreach materials, Fire prevention
- Outreach materials, Palau-specific conservation curriculum content
- Outreach materials, PAN
- Outreach materials, Translated
- Photo and other documentation, Community management in PAN Sites
- Photo and other documentation, Community outreach
- Photo and other documentation, eradication
- Photo and other documentation, erosion control
- Photo and other documentation, forest planting, rehabilitation sites
- Photo and other documentation, New tourism tests in Babeldaob (3 sites)
- Photo and other documentation, species actions
- Photo and other documentation, trial plots in National Botanical Garden
- Plan, National SLM Action Plan
- Plan, National Sustainable Tourism Development Management Plan
- Plan, PAN Communications Plan
- Plan, PAN Communications Plan - Sustainable Financing Sections
- Plan, PAN Site Management Plans (existing PAN Sites) - Sustainable Finance Sections and Sustainable Tourism
- Plan, PAN Site Management Plans (existing PAN Sites) (5)
- Plan, PAN Sustainable Finance Plan (updated)
- Plans, Eradication and Control Strategic Plan (2 species)
- Plans, National SLM Action Plan
- Plans, National Sustainable Tourism Development Management Plan
- Plans, PAN Site Management plans (4 new)
- Plans, SLM (State Land Use Plans/Master Plans) (4 states)
- Plans, SLM (State Land Use Plans/Master Plans) (4 states) – Sustainable Tourism Sections
- Plans, State PAN Site Management Plans with updated IAS sections (2)
- Plans, Vulnerable Species Management Plan (2)
- Publications, Peer reviewed journal articles
- Records, New staff hires
- Report, Coordination Review/Process for ensuring PAN/SLM Linkages and streamlining competing objectives based on SLM mandate
- Report, Demonstration Catchment
- Report, Ethnobotanical study
- Report, Existing funding streams and improved funding streams for states with PAN sites (3)
- Report, Gaps in legislation (tourism)
- Report, Lessons Learned (Integrated PAN/SLM/SFM/Ridge-to-reef)
- Report, Methane gas evaluation
- Report, MPA Perceptions
- Report, Northern Reef Fisheries Assessment Report
- Report, OERC Needs Assessment
- Report, PAN Criteria and Ranking Systems
- Report, PAN Revenue Generation Assessment
- Report, PAN Site Connectivity, Priorities, Gaps, and Tools
- Report, PAN Site Management Effectiveness (PAME) (9 sites)
- Report, PAN Sustainable Financing Plan Efficacy
- Report, PAN-SLM Links Assessment
- Report, Relevant legislation summary
- Report, Review of PAN Sustainable Financing Plan
- Report, SFM Revenue generation

- Report, State of the Environment/Coasts (as part of R2R)
- Report, Sustainable Harvesting Rates (SFM)
- Report, Taxonomic assessment
- Report, Tourism Capacity
- Strategy, Beneficial Animal Waste Strategy
- Strategy, Diversified funding for tourist destinations in Babeldaob
- Strategy, IAS Eradication and Control (2 species)
- Strategy, National Biosecurity Policy (including assessment of links with Micronesia Biosecurity Plan)
- Strategy, National PAN Management Plan (including SOPs that meet PAN regulations)
- Strategy, SFM Policy
- Training list, 3 PAN staff and 12 Other Staff trained
- Training list, Officers trained (6)
- Training list, PAN Managers trained (12)
- Website, Information Sharing page
- Website, Web-based data portal
- Workshop notes, Beneficial Animal Waste Practices
- Workshop notes, Earth Moving
- Workshop notes, PAN Management
- Workshop notes, Sustainable Agriculture (community)
- Workshop notes, Sustainable Agriculture (farmers)
- Workshop notes, Small business development (and EBM)
- Workshop notes, Water Resources

APPENDIX 12: Stakeholder Descriptions

Government Organizations

1. **The 16 State Governments—**All 16 of the state governments are engaged in natural resource and biodiversity conservation. State governments are largely dependent on yearly distribution of block grant funds from the national government in order to support environmental conservation programs. States are responsible for designating protected areas, submitting applications for new PAN sites, and overseeing management of protected areas. State representatives also often act as representatives of their local community. Each state has a legislative and executive branch and is organized by sector. States with PAN sites have a conservation staff and/or organization within their structure.
2. **Ministry of Natural Resources, Environment and Tourism (MNRET)—**MNRET is responsible for oversight of government initiated agricultural, forestry, fisheries and energy programs and activities. The Ministry is also responsible for all infrastructure maintenance and improvement at the national level, including road maintenance, sewer system operations and capital improvement projects. MNRET includes:
    a. The Bureau of Land and Survey
    b. The Office of the Palau Automated Land and Resource Information System
    c. The Palau Fisheries Advisory Committee
3. **Bureau of Land and Survey (BLS)**—The BLS is responsible for surveying land and identifying official recognized boundaries, including those of protected areas. The BLS provides advisory services as well as technical support for land resource issues.
4. **Office of the Palau Automated Land and Resources Information Systems (PALARIS)**—PALARIS provides mapping and geographical information services (GIS) throughout Palau. PALARIS supports implementation and provides planning and GIS services for Project activities. PALARIS was the home of the SLM Initiative as the SLM Policy was developed.
5. **The Palau Fisheries Advisory Committee**—The Palau Fisheries Advisory Committee provides recommendations to the Minister of MNRET and the President regarding national fisheries policies and implementation of the Palau National Tuna Fisheries Management Plan. The Committee acts in an advisory capacity and provides technical support for fisheries management issues.
6. **Office of Environmental Response and Coordination (OERC)—**OERC is responsible for ensuring compliance with Palau's obligations under the UN conventions on climate change, biodiversity, ozone, and desertification as well as facilitating coordination of national level responses to environmental degradation, protection, and rehabilitation of natural habitats. OERC is directly under the Office of the President and thus independent of all Ministries. Thus, OERC is designed to be a coordinating body, but has never had the full capacity to take on that role. The National Environmental Planner is the head of OERC. By presidential mandate, OERC is also the Chair of the National Environmental Protection Council.
7. **Ministry of Justice—**The Ministry of Justice is responsible for overseeing the courts, law enforcement, and enforcing laws in Palau. The Bureau of Public Safety is the primary enforcement arm of the Ministry of Justice. Included in the Bureau of Public Safety are:
    a. The Division of Fish and Wildlife Protection (DFWP)
    b. The Division of Marine Law Enforcement (DMLE)
8. **The Division of Fish and Wildlife Protection (DFWP)**—DFWP is the primary authority for enforcing criminal laws protecting the environment inside of the reef. DFWP also plays a role in community relations and education regarding environmental issues.
9. **The Division of Marine Law Enforcement (DMLE)**—DMLE is the primary authority for enforcing foreign fishing laws, which largely concern marine areas outside of the reef. DMLE functions in an advisory capacity for decision making and provides technical support in implementing some marine protected areas.
10. **Palau Public Land Authority (PPLA)—**PPLA administers, manages, and regulates the use of lands and any resulting income. It also establishes the basic guidelines and procedures for the operation of state public land authorities in each state, and provides technical assistance as appropriate. Each state in turn uses the authority granted to it by the PPLA to administer, manage and regulate public lands within its geographical boundaries.

11. **National Environmental Protection Council (NEPC)—**NEPC is designed to be a high level policy council that focuses on improving coordination of environmental initiatives in order to ensure that Palau fulfills its obligations to international environmental agreements and treaties that have been ratified by the OEK. Capacity for NEPC to fulfill its duty has never been high.
12. **Natural Resources Conservation Service (NRCS)**—NRCS is a United States Federal Agency that operates an office in Palau. NRCS functions in an advisory capacity to provide technical assistance for natural resource conservation activities in Palau.
13. **Palau Visitors Authority (PVA)**—The PVA provides information for tourists and supports development, improvement and monitoring of tourism activities within Palau. The PVA functions in an advisory capacity to guide tourism related policy and development, and to promote engagement and support for projects in the private sector.
14. **Palau Water and Sewer Corporation**—The Palau Water and Sewer Corporation is a government agency responsible for overseeing operations for water treatment and distribution as well as collection and treatment of sewage. It functions in an advisory role and provides technical assistance for water use issues.
15. **Palau Protected Area Office and PAN Board, Committees**—The PAN Office, PAN Board and related committees are responsible for administration of the PAN. These organizations provide technical support for decision making and implementation of the Project.
16. **Ministry of Health –** The Ministry of Health has streamlined climate change adaptation policies within many of its departments. The Bureau of Environmental Health (BEH) is located under the Ministry of Health. BEH tasks include management of pollution and disease vectors and thus is involved in management of IAS.

Semi-Government Organizations

17. **Environmental Quality Protection Board (EQPB)—**EQPB regulates all development activities involving earthmoving and structural development in Palau. The agency is also responsible for regulating environmental impact statements (EIS), marine and freshwater quality, air quality, public water systems, solid waste management, toilet facilities and pesticides. Major development projects are required to conduct an environmental assessment (EA). Depending on the scale of the project and its possible environmental impacts based on the initial EA, a full EIS may be required for projects that are likely to have significant negative impacts on the environment. EQPB has the authority to promulgate new regulations.
18. **Palau Community College Cooperative Research and Extension (PCC-CRE)—**PCC-CRE programs mainly focus on agriculture and conservation of agricultural biodiversity resources. This agency is staffed with well-qualified agronomists and entomologists. The PCC-CRE Research and Development station in Ngeremlengui state has laboratory facilities for reproducing taro seedlings through tissue culture. They are also working on a germ plasm collection for varieties of banana, sweet potato and taro. As part of their comprehensive conservation management plan, they have planted hundreds of trees to serve as windbreaks and to stabilize soils in riparian areas. The trees also serve as educational displays for Outdoor Science Classes for local high school students.
19. **Belau National Museum (BNM)—**BNM conducts research on Palau's natural and cultural history, including biodiversity. Current research being conducted by BNM is being used to build understanding of indicator species that can be used as a qualitative measure of ecosystem health. BNM also provides a point of interaction with the public, promoting greater awareness of cultural and environmental issues in Palau.
20. **Palau Natural Resources Council (PNRC)—**PNRC is an informal group made up of all of the key land management agencies, including government, non-government and private sector members. PNRC works to promote cooperation between national and state governments, agencies, communities, NGOs, and other private sector members on issues related to soil, water, plant and other natural resource conservation.
21. **Palau International Coral Reef Center (PICRC)—**PICRC is the result of a Common Agenda for Cooperation between Palau, Japan and the United States. The partnership was formed in order to address global issues related to health, population, environmental degradation and natural disasters. The Coral Reef Center itself was established by the Palau International Coral Reef Center Act of 1998. PICRC plays an important role in supporting coral reef studies, research and education, with the

ongoing objectives of improving environmental management, sustainable use and conservation of Palau's marine resources.

22. **Marine Resources Pacific Consortium (MAREPAC)—**Palau's Marine Resources Pacific Consortium is one of nine entities that make up the Marine Resources Pacific Consortium. MAREPAC promotes conservation and sustainable use of coastal and marine environments throughout the Pacific by promoting international cooperation and sharing of knowledge and resources.
23. **Palau Community Action Agency (PCAA)—**The PCAA was established during the Trust Territory period under the U.S. Economic Opportunity Act of 1964. The PCAA is a nonprofit private and public organization intended to work toward reducing poverty and developing means for people to help themselves gain self-sufficiency. Promoting sustainable economic activities is a key component of improving environmental sustainability.
24. **Belau Watershed Alliance (BWA)—**BWA is an organization comprised of representatives from government organizations, NGOs, and the private sector with the mission of improving watershed management throughout Palau. The BWA promotes cooperation between various stakeholders in order to make the best possible use of available knowledge and resources to protect water quality and quantity, ecosystem services and biodiversity within watersheds. In September 2013 the BWA hosted a regional watershed management summit in Koror which included attendees from throughout Micronesia.
25. **Palau National Communications Corporation (PNCC)**—PNCC provides cellular phone, internet and cable television service throughout Palau. PNCC functions in an advisory capacity and provides technical support to project coordination.

Non-Government Organizations

26. NGOs have come to play an important role in conservation and protection of the environment in Palau. NGOs have supported a broad range of activities affecting environmental management and conservation of biodiversity, including building organizational and human resources capacity, working to promote environment-friendly legislation, reaching out to the public, and working with stakeholders to develop management policies that address environmental issues while also reflecting community interests.
27. **Palau Conservation Society—**Since 1994, PCS has worked with Palauan communities to protect natural resources by establishing locally managed conservation areas, developing watershed management strategies and increasing awareness about all aspects of conservation and protection of natural resources. PCS has worked with several states to create, monitor and manage many marine protected areas. In 2002, PCS began to focus more effort on working with communities and partner agencies on conservation and awareness projects on Babeldaob, where much of the new development in Palau is occurring. Working with Airai state government and EQPB, in 2013 PCS completed the 5-Year Airai State Watershed Management Plan, the first state-level watershed management plan in Palau.
28. **The Nature Conservancy (TNC)—**TNC has been working in Palau since 1990, initially in partnership with the national government, primarily with the Division of Marine Resources. TNC assisted in establishing the Palau Conservation Society and has continued to provide ongoing collaboration, support and services to local partner organizations.
29. **The PAN Corporation—**Established by the Palau Protected Areas Network legislation, the PAN Corporation is a nonprofit entity with the mission of overseeing operation of the PAN. The PAN Corporation is responsible for administering monies collected through the Green Fee. The Corporation is overseen by a Board of Directors. Membership on the Board is limited to prevent national or state elected officials from serving, and also to maintain a majority of voting members who are not government employees.
30. **Palau Council of Chiefs**—The Council of Chiefs is a civil society organization composed of ranking members of Palau's traditional leadership. The Council functions in an advisory capacity representing public opinion, and also facilitates community engagement and support for projects.
31. **Palau Chamber of Commerce**—The Chamber of Commerce is a civil society organization composed of business leaders in the community. The Chamber is focused on supporting wise economic development and functions in an advisory capacity to support economic opportunity in Palau. The Chamber also facilitates private sector engagement and support for projects.

32. **Belau Tourism Association**—The Belau Tourism Association is a membership organization for tourism-related businesses in Palau. In the context of this Project, if functions as an advisory agency and facilitates private sector support and engagement.
33. **Male and Female Community Based Groups**—Palau has a tradition of community based organizations built around gender, age, and other unifying member characteristics. These organizations traditionally provide services to their communities, function in advisory capacities, and facilitate community engagement and project support.
34. **Local Consultants**—Local consultants such as The Environment, Inc. or Island-SEAS, provide technical advice and support implementation of some aspects of the Project.
35. **Oceania Television/Roll 'Em Productions (O-TV)**—O-TV is a media company that primarily broadcasts programs about or of particular interest to people living in Micronesia and the rest of Oceania. O-TV acts as an outlet and supports implementation of communication and outreach strategies for the Project.
36. **Coral Reef Research Foundation**—The Coral Reef Research Foundation is a non-profit research organization focused on improving understanding of coral reefs and related ecosystems. The Foundation functions in an advisory capacity and provides technical assistance for conservation of coral reef areas.
37. **Palau Conservation Consortium** – This is a loose and unofficial gathering of environmental professionals in Palau, acting as individuals to share information. Much of the existing coordination between stakeholders takes place within this unofficial arena.
38. **Micronesia Challenge** – The Micronesia Challenge (MC) includes the regional office and the MC Endowment, which is an integral part of the PAN and SLM Sustainable Financing Plans.

APPENDIX 13: References and Citations

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