



GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL-SIZED PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

For more information about GEF, visit TheGEF.org

PART I: PROJECT INFORMATION

Project Title:	Integrating biodiversity safeguards and conservation into development in Palau		
Country(ies):	The Republic of Palau	GEF Project ID: ¹	TBD
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5645
Other Executing Partner(s):	Ministry of Natural Resources, Environment and Tourism	Submission Date:	24 July 2015
GEF Focal Area(s):	Multi-focal Areas	Project Duration (Months)	72 months
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP <input type="checkbox"/>	
Name of parent program:	N/A	Agency Fee (\$)	402,188

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
BD-2 Program 4 Prevention, Control and Management of Invasive Alien Species	GEFTF	1,234,789	5,128,958
BD-4 Program 9 Managing the Human-Biodiversity Interface	GEFTF	1,058,390	4,396,248
LD-2 Program 3 Landscape Management and Restoration	GEFTF	176,398	732,707
LD-3 Program 4 Scaling-up sustainable land management through the Landscape Approach	GEFTF	352,797	1,465,417
SFM-1 Program 2: Identification and maintenance of high conservation value forests.	GEFTF	705,594	2,930,835
SFM-3 Program 7: Building technical and institutional capacities to identify degraded forest landscapes and monitor forest restoration.	GEFTF	705,594	2,930,835
Total Project Cost		4,233,562	17,585,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To mainstream conservation and biodiversity safeguards into forest, landscape, and seascape planning and management and into key economic and productive sectors in Palau.

Project Component	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
1. National enabling and institutional framework for integrated landscape and seascape level planning and mainstreaming of biodiversity into key sectors	TA	Enhanced national capacities for integrated sustainable forest and land management in Palau, evidenced by 20% increase in UNDP-GEF Capacity Development Scorecard 60% of existing and all new tourism establishments environmentally certified/green labelled Regulatory, monitoring and enforcement framework in place to avoid, reduce, mitigate and offset adverse impacts on biodiversity of agriculture, aquaculture and tourism sectors Strengthened Invasive Alien Species (IAS) institutions and	1.1. National framework for landscape level planning and management: (i) National-State coordination and joint landscape planning platform established within existing governance structures; (ii) National Forest Policy and Strategy developed (including mangroves) that adopts the High Conservation Value Forest (HCVF) approach and defines best practices; (iii) Forestry Division capacitated to provide effective technical assistance and support to states; (iv) Geospatial monitoring and economic decision support tools and national awareness campaigns. 1.2. Mainstreaming of biodiversity into key sectors: (i) National business development plans for eco-tourism, agriculture (including agroforestry) and aquaculture that integrate biodiversity concerns (including IAS) and include a set of minimum standards; (ii) Strategic Environmental Assessment for tourism, agriculture and aquaculture development, including specific guidance on the application of ecosystem and biodiversity safe	GEFTF	1,293,588	5,373,193
					BD: 1,093,588	
					SFM: 200,000	

¹ Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#).

³ Financing type can be either investment or technical assistance.

		<p>coordination and outreach efforts increase efficiencies in terrestrial and marine IAS prevention and management at the national level to reduce the risk and spread into vulnerable areas (as measured by increased score in the GEF IAS TT items 1 – 4). This delivers:</p> <ul style="list-style-type: none"> - Improved IAS surveillance and control for trade and travel into and within Palau. - Increased protection to globally significant biodiversity by reducing the risk of new introduction and spread of IAS into vulnerable ecosystems nationwide. <p>Enhanced national capacities for monitoring, implementation and enforcement in Palau’s waters to increase compliance with regulatory frameworks, evidenced by 20% increase in UNDP-GEF Capacity Development Scorecard</p> <p><i>Baselines, means of measurement and targets will be established during the PPG.</i></p>	<p>protocols and proposal for a permitting system developed to avoid, manage and mitigate impacts tested, adapted and implemented; (iii) Strengthened capacity of Environmental Quality Protection Bureau to develop, monitor and enforce regulations and effectiveness of practices in these sectors monitored (including ecological and economic indicators); (iv) Legal/policy gap analysis with respect to threats to biodiversity and policies to address developed, proposed and legislated (v) National certification/green label for tourism development and associated tourism infrastructure and products in place.</p> <p>1.3. National framework for effective Invasive Alien Species (IAS) Management through a comprehensive pathways management approach: (i) National Invasive Species Council Office capacitated to serve as focal point, coordinating body, communication and training centre for biosecurity activities and support for regional cooperation; (ii) Comprehensive risk analyses to identify highest risk pathways and IAS, (iii) Development and execution of national action plan on IAS for enhanced prevention on entering country, including integration of IAS prevention into PAN site management to reduce risk of spread in country and new invasions at PAN sites; (iv) Early Detection and Rapid Response (EDRR) mechanisms for terrestrial and marine environments developed and demonstrated, (v) cost-recovery system.</p> <p>1.4. National capacity for effective monitoring, surveillance and increasing compliance with existing laws on protected species and resource extraction by the Divisions of Fish and Wildlife Protection and other relevant regulatory agencies (incl. Bureau of Marine Resources) strengthened to prevent and respond effectively to violations.</p>			
2. Integrating conservation and biodiversity safeguards into landscape planning and management in Babeldaob	TA/INV	<p>Biodiversity management and ecosystem service provision is mainstreamed in forest landscape management in 7 States, resulting in reduced threats from IAS and wildfires and in improvements in biodiversity and ecosystem services, indicated by:</p> <ul style="list-style-type: none"> -Maintained or improved site level ecological and biodiversity indicators (e.g. Globally Endangered Palauan sub-species of the Marianas’ fruit bat <i>Pteropus mariannus pelewensis</i>). -Reduction in pressures to forests, including mangroves. -Set-aside areas (High Conservation Value Forests) for non-exhaustive forest use (tourism) of at least 15,000 ha. - Restoration of approx. 1,000 	<p>2.1. Integrated Forest and Landscape Management Plans developed, implemented and enforced for 7 States⁴ on Babeldaob Island that adopt the HCVF approach and integrate IAS and climate change considerations. These include 15,000ha of HCVF forest conserved/set aside for non-exhaustive forest use.</p> <p>2.2. Community-based restoration of approximately 1,000ha of degraded forest/savannah to reduce risks from wildfires and IAS.</p> <p>2.3. Babeldaob capacitated for effective fire management and response to reduce threats from wildfires and IAS invasions.</p> <p>2.4. Development of sustainable, biodiversity friendly ecotourism products (forest birding tours, mangrove tours, that are operated in compliance with standards developed under component 1) with community participation, and visitor management capabilities.</p> <p>2.5. Biodiversity friendly sustainable land and forest management practices implemented by local communities in 500ha, such as organic agroforestry</p>	GEFTF	1,612,786	6,699,049
					BD: 97,804 LD: 503,794 SFM: 1,011,188	

⁴ The UNEP supported GEF 5 financed *Ridge to Reef: Advancing Sustainable Resources Management to Improve Livelihoods and Protect Biodiversity in Palau* project seeks to support the 3 other States of Babeldaob and Koror State with sustainable land use plans. This project will work together with the UNEP project to ensure a whole-island approach integrating BD concerns and integrated forest management principles (e.g. emphasizing connectivity, corridors and resilience to climate change) into state land use plans. The main focus of the UNEP Project is primarily on the PAN Protected Area Network.

		<p>ha of degraded forest/savannah reduces risks from wildfires and IAS and counteracts ongoing and past land degradation.</p> <p>Enhanced local capacities emplaced for implementation and enforcement of sustainable forest and land management as measured by the UNDP-GEF Capacity Development Scorecard.</p> <p>Adoption of ecotourism products.</p> <p>Incentives and other benefits to community are directly linked to forest and wildlife protection.</p> <p><i>Baselines, means of measurement and targets will be established during the PPG.</i></p>	using native species, conservation agriculture, etc, with business plans in place to sustain.			
3. Rehabilitation of coastal and terrestrial ecosystems and responsible management of tourism, fisheries and aquaculture in the Southern Lagoon States of Koror and Peleliu	TA/INV	<p>Threats to biodiversity and ecosystem function in the coastal zone are mitigated in approximately 264,686ha of seascapes through improved management, as evidenced by:</p> <ul style="list-style-type: none"> -Improvements in fish stocks in designated zones. -Percentage live coral cover is stable or increasing at specified sites during the project period. <p>All tour guides and operators complete the biodiversity friendly training certification.</p> <p>Tourism sector funding is channeled to BD/ecosystem conservation</p> <p>Long-term rehabilitation of terrestrial ecosystems and biodiversity on the islands of Southern Lagoon States measured through:</p> <ul style="list-style-type: none"> -At least 50 hectares of habitat of limestone islands where rats have been eradicated. -Stable or increasing populations of the Micronesian Megapode. -Stable or increasing populations of <i>Cycas micronesica</i>. <p><i>Baselines, means of measurement and targets will be established during the PPG.</i></p>	<p>3.1. Seascape spatial mainstreaming plan is developed, implemented/legislated and enforced: (i) Zoning and boundary demarcation of coastal zone for different uses (including tourism, various fisheries including local and recreational, aquaculture, etc) for optimal management based on key data on the seascape, including gazetting of critical areas for biodiversity; (ii) Improved management measures tested and implemented and support for sustainable alternative livelihoods (fisheries); (iii) Strengthened surveillance and enforcement (tourism, fisheries, aquaculture); (iv) A system of relevant and effective penalties for violations and misconduct developed, adopted and enforced; (v) Monitoring programmes following standardised protocols in place.</p> <p>3.2. Mainstreaming of biodiversity (including IAS prevention and management actions) into responsible tourism guide and operator certification training, and develop and scale this certification.</p> <p>3.3. Incentives/disincentives for promoting adherence of tourism sector to new standards (e.g. introducing taxes and charges levied on tourism enterprises which are not adopting environmentally friendly practices) and strengthened surveillance and enforcement.</p> <p>3.4. Piloting of private-community partnerships for conservation and restoration of mangrove forests and other conservation initiatives, such as working with hotels and tourist resorts to convert landscaped gardens using exotic plants to non-invasive species and ensure non-invasive species used in future.</p> <p>3.5. Eradication of rats (<i>Rattus</i> spp) from selected limestone islands to reduce threats to endangered species especially Micronesioan Megapode.</p>	GEFTF	1,125,590	4,675,377
Subtotal					4,031,964	16,747,619
Project Management Cost (PMC) ⁵				GEFTF	201,598	837,381
Total Project Cost					4,233,562	17,585,000

If Multi-Trust Fund project :PMC in this table should be the total and enter trust fund PMC breakdown here ()

⁵ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Recipient Government	Bureau of Agriculture, Ministry of Natural Resources, Environment and Tourism	Grant	1,200,000
Recipient Government	Bureau of Marine Resources, Ministry of Natural Resources, Environment and Tourism	Grant	1,500,000
Recipient Government	Bureau of Tourism, Ministry of Natural Resources, Environment and Tourism	Grant	300,000
Recipient Government	Div of Fire & Rescue, Bureau of Public Safety, Ministry of Justice	Grant	150,000
Recipient Government	Div of Marine Law Enforcement, Bureau of Public Safety, Ministry of Justice	Grant	100,000
Recipient Government	Div of Fish & Wildlife Protection, Bureau of Public Safety, Ministry of Justice	Grant	150,000
Recipient Government	PALARIS, Bureau of Budget & Planning, Ministry of Finance	Grant	300,000
Recipient Government	Environmental Quality Protection Agency	Grant	300,000
	Palau Visitors Authority	Grant	2,400,000
Recipient Government	Belau National Museum	Grant	175,000
Recipient Government	Bureau of Arts and Culture, Ministry of Community and Cultural Affairs	Grant	300,000
Recipient Government	Koror State Government - Department of Conservation and Law Enforcement	Grant	6,000,000
Recipient Government	Angaur State Government	Grant	80,000
CSO	Palau Conservation Society	Grant	1,000,000
CSO	Island Conservation	Grant	300,000
CSO	The Institute of Pacific Islands Forestry	Grant	480,000
CSO	Palau International Coral Reef Center	Grant	1,100,000
CSO	Coral Reef Research Foundation	Grant	250,000
CSO	The Nature Conservancy	Grant	1,000,000
CSO	Palau Community College	Grant	500,000
Total Co-financing			17,585,000

D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS ^{a)}

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) ^{b)}	Total (c)=a+b
UNDP	GEFTF	The Republic of Palau	Biodiversity		2,293,179	217,852	2,511,031
UNDP	GEFTF	The Republic of Palau	Land Degradation		529,195	50,274	579,469
UNDP	GEFTF	The Republic of Palau	SFM		1,411,188	134,063	1,545,250
Total GEF Resources					4,233,562	402,188	4,635,750

a) Refer to the Fee Policy for GEF Partner Agencies.

E. PROJECT PREPARATION GRANT (PPG)⁶

Is Project Preparation Grant requested? Yes No If no, skip item E.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

Project Preparation Grant amount requested: \$150,000					PPG Agency Fee: \$164,250		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					Agency	Total	

⁶ PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$100k for PF up to \$3 mil; \$150k for PF up to \$6 mil; \$200k for PF up to \$10 mil; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

					PPG (a)	Fee ⁷ (b)	c = a + b
UNDP	GEFTF	The Republic of Palau	Biodiversity		81,250	7,719	88,969
UNDP	GEFTF	The Republic of Palau	Land Degradation		18,750	1,781	20,531
UNDP	GEFTF	The Republic of Palau	SFM		50,000	4,750	54,750
Total PPG Amount					150,000	14,250	164,250

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁸

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	280,686 ha ⁹
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	500 ha
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO _{2e} mitigated (include both direct and indirect)	Over a 10-year period, sequestration of 775,511 tons of CO _{2e}

PART II: PROJECT JUSTIFICATION

1. Project Description.

Global environmental problems:

The Republic of Palau is located in the western Pacific. The country has an Exclusive Economic Zone (EEZ) of 3,120,000 km² and a total land area of 488 km². Comprised of over 700 islands, Palau stretches more than 650 km from the atoll of Kayangel in the north to the islet of Helen Reef and Hatohebei in the south. Only 12 islands are continuously inhabited and most are small and rocky. Palau is divided into 16 states and governed by a constitution, with an estimated population of 17,501 people.

Biodiversity of Palau: Located at the northeastern edge of the Coral Triangle and home to the greatest area of continuous native forest in Micronesia, Palau houses the most diverse terrestrial biodiversity in the Micronesia region and one of the most biologically diverse marine environments globally. Numerous island types from volcanic islands, atolls, raised limestone to low coral islands provide a wide variety of habitats. Endemism in terrestrial habitats is high (>1,000 endemic species). Approx. 70-75% of Palau's land area is forest, with about 300 km² of continuous native forest cover throughout the islands comprising nine forest types. The majority of this native forest is located on the largest island of Babeldaob and on the Rock Islands, which extend from Southern Babeldaob to Peleliu. Babeldaob has the most extensive native and species diverse forest in Micronesia, with many endemics. The forests of the Rock Islands house a specific kind of limestone forest, which has a species set endemic to Palau. Mangroves are one of the most significant ecosystems (including 19 species of mangrove tree), covering over 48km² and representing 15% of total forest area¹⁰. Palau has 860 recorded species of native plants, of which 194 are endemic, including at least 50 endemic trees¹¹. At least 162 bird species including 111 migratory birds and 51 resident species (of which 10 species and 6 sub-species are endemic¹²) have been recorded. All of Palau's endemic and endangered birds use forests during all or part of their life cycle, and all except one can be found from Babeldaob to Angaur, though Palau Ground Dove is reported to be rare outside the Rock Islands, and several species of birds have been extirpated from Angaur by macaque monkeys. The globally Endangered Micronesian Megapode (*Megapodius laperouse*) is limited to Palau and several of the Mariana Islands. In Palau the megapode ranges from Kayangel Atoll in the north to Angaur in the south, and is considered to be most abundant on the Rock Islands and Kayangel. Palau has up to 200 species of land snails, 95% of which are endemic. Native forests have the highest land snail diversity and endemism. Of these, indigenous forests of the Rock Islands have the highest land snail diversity and endemism, although the island of Babeldaob also harbors important "hotspots" of land snail diversity and several land snail species that are endemic only to Babeldaob's volcanic forest. In Palau freshwater streams are present only on volcanic islands, and Babeldaob has the only sizeable continuously flowing streams and freshwater lake. Approximately 47 species of freshwater fish inhabit the streams of Babeldaob, all of them spending part of their life cycle in saltwater habitats. Saltwater crocodiles

⁷ PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

⁸ Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and/or SCCF.

⁹ Comprises: 15,000ha of HCVF established and 1,000 ha restored area under component 2 and 264,686 ha of seascape under component 3.

¹⁰ Republic of Palau. 2010. The Republic of Palau Statewide Assessment of Forest Resources and Resource Strategy. A comprehensive analysis of forest-related conditions, trends, threats and opportunities

¹¹ Endemic plant species include: *Ponapea palauensis*, *Rauvolfia insularis*, *Parkia parvifoliola*.

¹² Endemic birds of Palau: Palau Greater White-eye (*Megazosterops palauensis*), Palau Morningbird (*Pitohui tenebrosa*), Palau Fantail (*Rhipidura lepida*), Palau Flycatcher (*Myiagra erythril-ops*), Palau Bush-Warbler (*Cettia annae*), Palau Owl (*Pyrroglaux podargina*), Palau Fruit-Dove (*Ptilinopus pelewensis*), Palau Ground-Dove (*Gallilolumba canifrons*), Dusky White Eye (*Zosterops semperi*).

also use the streams as corridors between nesting and feeding sites. Palau's diverse fauna of insects and their kin encompasses 31 major groups of arthropods with a richness estimated at 5,000 species or more (more than 300 of which are endemic, with regular new discoveries). Palau has 40 indigenous species of reptiles, including four sea turtle, seven snake, 30 lizard and one crocodile species. The Palauan frog, *Platymantis pelewensis*, is the only endemic amphibian. Endemic reptiles include the Palauan blind snake, the Palau Bevelnosed Boa and nine endemic lizards. Two of these endemic lizards are seemingly rare; the Palauan pandanus skink and one endemic gecko species which occurs only on two islets in the Ngerukeuid Reserve. Palau's two native terrestrial species of mammals are both bats and both are endemic sub-species, namely the Palauan sub-species of the Marianas fruit bat (*Pteropus mariannus pelewensis*) and the Palauan sub-species of the Sheath-tailed Bat (*Emballanura semicaudata palauensis*). Both species are listed as globally Endangered and found on Babeldaob, Koror, the Rock Islands and others islands of Palau. In addition to the rich biodiversity they house, Palau's forests, including mangroves, provide vital ecological services that help maintain the health and integrity of all terrestrial and marine ecosystems through, for example, sediment trapping, climate stability, nurseries for reef fish, soil production and conservation and as watersheds.

Palau is renowned for its marine life and probably has as great a diversity of tropical marine habitats as found in any comparably-sized area worldwide. Palau possesses some of the best-preserved reefs remaining in the Coral Triangle; reefs cover an approximate area of 821.9 km², enclose a lagoon area of 1,136.5 km², and comprise numerous reef types, including barrier, fringing, patch and atoll reefs. In addition to extensive coral reefs and mangroves, Palau has extensive seagrass beds, deep algal beds, mud basins, current-swept lagoon bottoms, rich tidal channels and anoxic basins. These habitats are home to diverse and abundant marine life, with more than 1,500 species of shallow water (<200m) fish and over 500 species of hard and soft corals reported. These include many threatened reef fish and coral species, such as the globally Endangered humphead wrasse *Cheilinus undulatus*, Vulnerable Bumphead parrotfish (*Bolbometopon muricatum*) and *Acropora* corals. Spawning aggregations of threatened reef fish, such as globally Vulnerable Squaretail Grouper *Plectropomus areolatus*, are also still present. The Rock Islands of Palau have the highest number and density of marine lakes in the world and five of these are home to different endemic sub-species of jellyfish that have evolved in isolation over thousands of years. Marine life also includes threatened megafauna, such as the most isolated population of Endangered *Dugong dugon* in the world, hawksbill turtle *Erythrochelys imbrecata* and green turtle *Chelonia mydas*. At least 13 species of shark and manta rays are present, 7 species of giant clam (of the 8 found worldwide), including globally threatened species, the endemic *Nautilus belauensis* and over a dozen species of whales and dolphins. **Protected Areas:** The 2003 Protected Areas Network (PAN) Act created a national system of protected areas (PAs) and established a framework to improve financial and technical capacity of state governments to effectively support and coordinate management of PAs. State, community, and private PAs may apply for membership of the PAN, which makes them eligible to access technical resources, participate in a national monitoring scheme and to apply for national funding under the PAN fund. PAN member sites must have a management plan that meets specific criteria to access PAN funds. In return, states and communities owning PAN member sites agree to effectively conserve the natural resources in the PAs. Currently there are 13 official PAN sites, which are members. Other protected and managed areas (27 others sites in total) in Palau span the full range of management types from fully protected no-entry or no-take areas to those managed for sustainable harvest and use.

Babeldaob island: Babeldaob is the largest island in Palau, comprising 75% (365 km²) of the country's total land mass and 10 of Palau's 16 States. This large volcanic island is sparsely inhabited compared to Koror, but Airai state (located on the south of the island) has experienced a 75% increase in population over the past 25 years and is currently home to 14% of Palau's population (2,500 people), many of whom commute to Koror to work. Babeldaob still has significant areas of native forest intact, though more and more areas are opening up to residential, commercial, infrastructure and tourism development. Almost all of Palau's mature native volcanic soil forest, riverine forest, swamp forest and coastal and riverine mangroves (about 80% of the island's shoreline is mangrove forest) are located on this island. There are eight PAN sites on Babeldaob, but large areas of forest are located outside of PAs. Forests are threatened by conversion for development, land fragmentation, fire and invasive species. Remaining terrestrial land area includes savannah/grasslands, scrub savannah, freshwater ecosystems, plantation, agricultural/crop land or urban development.

Southern Lagoon States of Koror and Peleliu: Koror state, and specifically the main Koror island, is currently the most urbanized area in Palau and is the economic center. The majority of Palau's population lives in Koror (65%; 11,600 people). Koror state's borders extend south from the southern tip of Babeldaob island, encompassing hundreds of islands (covering approx. 58 sq km total landmass), to a point just north of Peleliu state. Peleliu (18 sq km total landmass) is a raised coralline island located at the southern end of Palau's southern lagoon. The scattered collection of limestone or coral uprisings covering this area from Koror to Peleliu are the Rock Islands. Almost all of Palau's limestone forest is located on these islands and within these states. As well as large stands of limestone forest and mangroves, Peleliu also has areas of Casuarina forest along sandy beaches. The islands sustain a large diversity plants, birds and marine life. All the endangered megafauna of Palau, 746 species of fish, over 385 species of corals, at least 13 species of sharks and manta rays, 7 species of giant clams and the endemic nautilus are found there, and the forests of the islands include all of Palau's endemic birds, mammals, herpetofauna, and nearly half of Palau's endemic



plants. The vegetation of the Rock Islands, because of its uniqueness, has been characterized as distinct subtype of the limestone forest type. Some of the more common forest species of the Rock Islands include the endemic palms *Gulubia palauensis* and *Ptychosperma palauensis*, and the forest trees *Semecarpus venenosus*, *Intsia bijuga*, *Psychotria* spp., *Premna obtusifolia*, *Cordia* spp., *Clerodendrum inerme*, and *Bikkia palauensis*. The Rock Islands, including Peleliu are a major tourist attraction for their natural beauty and attractions (including the jellyfish lake), dive sites, snorkelling, kayaking and other recreational sports, as well as historical sites. Currently, the vast majority of tourism in Palau is concentrated in these islands, with the large majority of hotels located in urbanised areas of Koror. Increasing numbers of visitors, demand and types of recreational activities have led to safety, congestion and environmental concerns.

Development context: Palau's economy is largely driven by foreign aid and tourism, with additional income generated through fishing. The Compact of Free Association with the US, which aims to promote economic and technical self-sufficiency, provides declining annual restricted funds to Palau. Tourism is the next largest sector. Agriculture and fisheries are priority areas that are growing; these two sectors make only a small contribution to GDP (~4%), but provide the main livelihood for about 20% of Palau's population and local food security is a national priority (given heavy reliance on food imports). Palau's national Development Policies and Plans prioritize expanded agriculture and aquaculture. **Tourism:** Although Palau's resident population is small, 139,029 tourists visited the country in 2014¹³ (up more than double the number in 2000 from 57,000). The Palau Visitors Authority (PVA) anticipates that this trend will continue, projecting visitors will rise to 650,000 per year by 2020 (based on current trend of 30% increase per year), more than 37 times the country's resident population. **Forests:** There are mahogany plantations on Babeldaob island. There is also demand for native trees that are good timber trees such as *Gmelina palawensis* and others for building homes. **Agriculture:** Palau's agricultural systems include agroforestry, dry and wet taro farming, no till agriculture, fruit tree orchards and reforestation. There are also small-scale livestock operations raising pigs and chickens. Palau's highly acidic, nutrient-poor soils are highly erodible and make large-scale agriculture unfeasible. **Aquaculture:** 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 milkfish, groupers, rabbitfish, mangrove crabs and some other crustaceans. **Fisheries:** Subsistence and domestic commercial coastal fishing is carried out in lagoons and around barrier reefs. Offshore fisheries are undertaken within the EEZ on an industrial scale by locally-based foreign longline vessels (primarily targeting tuna) and sporadically by one domestic pole-and-line vessel.

Governance of Land/Seascapes and Development Permitting:

Palau is governed by a Constitution and democratically elected officials, who work in tandem with Traditional Leaders. Every state has their own municipal government that is a mix of elected and traditional leaders. Under the Constitution, Article I, Section 2 grants each state exclusive ownership of all living and non-living resources (except highly migratory fish) on land out to 12 nautical miles seaward. As a result, landscape and seascape planning must involve state governments. Title 35 (Public Lands Act) of the National Code establishes the Palau Public Lands Authority (PPLA) to hold title to, administer, and manage public land for all the people of Palau. This includes establishing and maintaining formal records, safeguarding the public nature and use of land; and enforcement of land use in accordance with zoning, environmental and historical preservation laws. Most of the land (71%) is considered public land and under the jurisdiction of the individual States. Individuals, partners, corporations and traditional clans own the remaining 29% of the land. In the states of Kayangel, Angaur, Peleliu, Hatohobei, Sonsorol and Ngarchelong, the key stakeholders are the private land owners. In most of Babeldaob, designated public lands range from 50% in Ngiwal to 94% in Ngaremlengui. Therefore the State Public land authorities play a critical role in land planning. Since over 80% of Palau's land is forested, most of the forested land is under the jurisdiction of the State Public Land Authorities. Experiences in Palau show that it is very important to have dialogue and buy-in from decision makers and stakeholders before implementing new policies or regulations.

The Environmental Quality Protection Board (EQPB) is the semi-autonomous national body responsible for regulating all development activities involving earthmoving and structural development in Palau, and has the authority to promulgate new regulations. While EQPB requires an initial environmental assessment for major developments and a full EIS may be required for projects that are likely to have significant negative impacts, the EQPB lacks capacity to inspect all construction for environmental impacts. There are few land use plans in place, and with few national policies in place or statutes to provide specific direction to management priorities, EQPB was granted little authority to manage environmental consequences of development. 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. In addition, as established by the constitution, states have ownership of resources, which can further complicate the question of which body – the state government or EQPB – has authority over environmental management issues. Capacities for permitting, monitoring, and enforcing biodiversity-friendly development are therefore limited with respect to managing direct and indirect threats. Systemic capacity in terms of regulations, monitoring and enforcement is lacking, there is an absence of strategic development planning and operationalization processes, and decision makers do not have the information to integrate biodiversity and ecosystem values into regional development planning. 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.

Threats to Biodiversity and Ecosystem Services can be categorised as:

Forest clearing and conversion leading to degradation of natural terrestrial and marine habitats: Key threats to both terrestrial and marine environments of Palau are deforestation, land clearing, and development pressure, particularly on the island of Babeldaob. Although Palau has been successful at establishing a network of marine and terrestrial PAs, areas important for biodiversity and

¹³ Republic of Palau Immigration and Tourism Statistics

ecosystem services lie outside of PAs, including large areas of intact native forests on Babeldaob. Furthermore, poor management of areas surrounding PAs can counteract the value of designated PAs. Much development pressure is driven by the tourism and other industry, resulting in construction of hotels, tourism facilities, and associated infrastructure, but additional development pressure comes from recently improved access. Palau's capital moved from Koror to Ngerulmud in Melekeok State on Babeldaob in 2006. Completion of an 83-km ring road around Babeldaob on October 1, 2007 has made access to the island easier, and residential and commercial development in those states have increased significantly. Previously inaccessible areas of relatively undisturbed forest (including mangroves) are now at risk of being developed for commercial, agricultural and residential purposes, placing these ecosystems and the globally significant biodiversity they house at risk. Proposals for development have included major resort hotels, golf courses, casinos, a new port, and a free trade zone. Mangroves and coastal areas are also threatened by conversion and development and have received little attention despite the critically important role they currently play in coastal defence, as nurseries for fish and other services. Between 2001 and 2005 there was a net 1.5% decrease in forest cover and a 5.8% increase in non-vegetative cover on Babeldaob¹⁴. However, with more and more land on the island opening up to development, it is expected that rate of deforestation will accelerate significantly in the next 10 years under a business as usual scenario. This threatens the unique biodiversity of Babeldaob's old growth forests and increases soil erosion threatening the important watersheds on the island which supply freshwater to the majority of the population. Deforestation of the Babeldaob's upper watersheds has already led to catastrophic landslides, increased runoff and heavier sediment loads in rivers and streams. The red laterite soils that underlay this island are easily eroded once exposed and do not easily recover their vegetation. Soil erosion from Babeldaob already threatens many coastal environments, with a recent study showing sedimentation from land based activities is degrading surrounding reefs¹⁵, and this is likely to become worse with increasing development. Recent years have seen unprecedented episodes of sediment transportation into the ocean. If states and communities do not take measures to control sediment influx into streams, rivers and the ocean within the next 15 years, it is expected that Babeldaob reefs will become severely degraded¹⁶. Buffer zones, better agricultural practices regarding soil erosion, restoring degraded areas, and proper management of terrestrial development are needed to reverse the negative trend that land-use practices are having. Blocking of mangroves from salt water access to carry out development projects or aquaculture can kill the mangroves (as has already occurred in one channel)¹⁷. Agriculture has grown slowly, but commercial operations exist on Babeldaob and increasing commercial and subsistence agriculture and aquaculture for production of food for local consumption is a key element of Palau's long-term food security and development plans. For a small sector, agriculture has disproportionately large negative impacts on the environment, particularly in degrading water quality. Virtually all of Palau's farms are located alongside streams and mangroves. Downstream from large-scale piggeries, water samples have shown elevated levels of coliform bacteria. Although the current scale of use is unknown, use of chemical fertilizers and pesticides may contribute to contamination of agricultural runoff, further impacting biodiversity in aquatic and marine environments. Farming practices have shifted to favour open burning of plant wastes instead of the composting of organic debris that traditional practices relied on. This unsustainable farming practice leads to loss of soil organic matter and fertility, kills microorganisms that support healthy plant growth and contributes to wildfires, leading to land degradation and increasing risks from Invasive Alien Species (IAS) (see below).

Invasive Alien Species (IAS): Invasive species are considered to be possibly the greatest threat to biodiversity in the Pacific Islands and in Palau they are another major threat to forest resources. Additionally, IAS threaten Palau's economy, human health, agriculture and aquaculture. IAS cause harm by eating animals or their eggs (monkeys, cats, and rats, for example, eat bird eggs and nestlings), by eating plants (parrots and cockatoos eat the hearts of two palm trees found only in Palau's rock islands, killing the trees), by growing over plants (several plants, notably *Mikania micrantha*) by outcompeting native vegetation (e.g. *Adenantha pavonina*, the coral bean tree outcompetes native trees on Babeldaob and on a few of the Rock Islands) or by being more likely to survive fires (*Imperata cylindrica*, *Chromolaena odorata*, African Tulip), by carrying and causing diseases (Eurasian tree sparrow, rats, mosquitoes, monkeys) and in many other ways. Given that nearly all of Palau's PAs include endemic or endangered animals with small populations, IAS are of particular concern to protected area management on land. The potential spread of longer-term introductions such as African tulip tree (*Spathodea campanulata*), and numerous invasive plants used for landscaping, makes it urgent to educate and take preventive action now. Uncontrolled forest fires on Babeldaob exacerbate IAS and lead to spread of IAS invasions (see below). The major threat to Palau's globally Endangered bird species the Micronesian Megapode is predation by introduced predators, e.g. rats *Rattus* spp. and feral cats. Rats are of particular concern as they have invaded most of the Rock Islands, the preferred habitat of the Micronesian Megapode in Palau, as well as other islands, including the isolated island of Fanna, an Important Bird Area for seabirds. Animal IAS, like rats, feral cats and other predators, can be devastating to the avifauna and small fauna, reducing levels of recruitment. Introduction and spread of IAS via ornamental plants represents a key threat to Palau's endemic and threatened flora. For example, Asian cycad scale (*Aulacaspis yasumatsui*) has been detected on ornamental cycads on the main island of Koror. All infested plants to date are introduced ornamental cycads, but the infestation poses a serious potential threat to the globally Endangered *Cycas micronesica* in the limestone forest of islands of the Southern Lagoon. Cycad scale has already been a serious problem for the health of Gaum's native forests, where it is established. During the Biodiversity Planning for Palau's Protected Area Network¹⁸ "introduction of non-native species" was rated as the second most important threat to conservation targets in Palau after "Climate Change". It is essential to prevent species that could have a major negative impact, such as the brown tree snake (*Boiga irregularis*), from entering

¹⁴ Colin, P. 2009. Marine Environments of Palau.

¹⁵ Golbuu et al. 2011. River discharge reduces coral reef diversity in Palau. *Marine Pollution Bulletin*. 62: 824-831.

¹⁶ Belau Watershed Alliance. 2013. Factsheet.

¹⁷ Colin, P. 2009. Marine Environments of Palau.

¹⁸ Hinchley et al. 2007. Biodiversity planning for Palau's protected areas network: an ecoregional assessment. The Nature Conservancy (Pacific Island Countries Report No. 1/07.

the country. The brown tree snake has established a population of 3 million in nearby Guam, causing species extinctions, as well as power outages, health and infrastructure problems, and poses a significant potential threat to Palau's biodiversity.

IAS also pose a threat of unquantified magnitude to Palau's marine biodiversity. In the marine lake open to tourists, Jellyfish Lake, a non-native *Aiptasia* species of anemone has established and is spreading across the lake, where it appears to be altering the habitat. A non-native species of hydroid, *Eudendrium carneum*, was introduced via a floating bridge from China. This has the potential to become a "pest" organism; it is a rapid growing species and has been found growing in at least three channels. Although more work is needed on marine IAS in Palau, examples from the Atlantic of the lionfish becoming invasive after introduction there and devastation of coral reefs caused by coral diseases in the Caribbean are cautionary tales that marine invasives should not be overlooked, particularly where the economy is so intimately linked with the health of marine biodiversity. Unique tourist attractions, such as jellyfish lake, which currently attracts more than half of the total visitors entering Palau and generates income from the sale of permits could be particularly vulnerable if an aggressive IAS were to enter and establish. The nature of the IAS threats has changed dramatically as a result of the increased trade and movement of people associated with development of tourism and industrial off-shore fisheries. This has increased the number of pathways for IAS introductions. Key current potential pathways include transport, tourism (tourists and hotels/resorts, for example through introduction of IAS via ornamental plants in hotel landscaped gardens), agriculture, the pet trade, foreign fishing vessels, shipping, aquaculture (though efforts are now being made to focus only on native species for aquaculture).

Uncontrolled fires: Palau's NBSAP lists uncontrolled fires as one of the major threats to terrestrial biodiversity. Repeated fires pose a particular threat to native forests, particularly given the relatively small area they cover. Fires prevent natural forest regeneration, lead to and exacerbate problematic invasive alien weed invasions, accelerate soil erosion and can result in degraded, barren areas with extremely poor soils¹⁹. Savannah grasslands in Palau are tightly linked with fire when forest is removed on volcanic soils. Grasslands originating from abandoned agricultural land fail to reforest, so that vegetation is lost and soils are eroded. Palau currently lacks sufficient infrastructure and resources to effectively respond to most wilderness fires, meaning that uncontrolled fires are left to burn out on their own. Forests abutting savanna areas that are subjected to frequent fires are whittled away over time by repeated exposure to fire. Disturbed forest and savannah is highly susceptible to IAS invasions (such as those plants noted above). Completely eroded soils and bare areas are developing where fires occur on steep slopes, in areas exposed to strong winds or areas being repeatedly burned. Wildfires on Babeldaob are mainly human derived (through arson, farming, hunting, government work and brush piles), occur in all states of the island and can comprise >2% of the total island area per year. Climate change is projected to exacerbate the risk of fire. Work to document and map fires on the island by the USDA Forest Service, Coral Reef Research Foundation and Palau Forestry has highlighted that preventing wild fires is critical to conserving Babeldaob's watersheds.

Damaging practices in tourism, coupled with rising demand: International tourism arrivals to Palau increase virtually every year and outnumber the resident population by more than eight-fold. Tourism contributes roughly 50% of Palau's GDP, but is driving degradation of the natural beauty, biodiversity and pristine environments (including intact reefs and species that have become rare elsewhere) that tourists come to see and on which the economy largely depends. As visitors are projected to increase to 650,000 per year by 2020, more than 37 times the resident population, this will undoubtedly place enormous pressure on Palau's resources if not managed carefully. An increase in mass package tours from various Asian countries to Palau has resulted in greater pressures on natural resources, while revenues are often not retained in country. Demand for fish and other seafood from the tourist market has already placed increasing pressure on coastal waters and reef fish. Coastal fisheries are declining across utilized species, as measured by biological counts and socioeconomic perception and income surveys. Coral reefs at popular snorkel sites are being visibly degraded through trampling by large numbers of unaware tourist groups breaking coral. The continued success of the dive industry arguably depends on healthy intact reefs, stocks of large reef fish and marine biodiversity.

Over-fishing: Fishing pressure on inshore reefs has caused concern over declining stocks. Coastal fisheries are declining across utilized species, as measured by biological counts (field and market surveys and fish aggregation studies) and socioeconomic perception and income surveys. Even in 2002, communities perceived their catch to be at least three times smaller than a decade ago. High demand for fish as food from tourists has driven increasing commercialisation of local reef fish catches on the Koror fish market, placing increasing pressure on reefs and fish stocks. Reef fish are also exported (whereas there are bans on export of mangrove crab and lobster), which is also of concern. There are gaps in the current legal framework, which is inadequate to address some of these rapidly emerging threats. For example, export of marine reef fish continues despite concerns about declining stocks and turtle shells and other marine products are on sale in many shops. Many locals practice subsistence fishing, and the fish caught are an important food source for many families, though there is a limited proportion of local people that rely on catches for their sole livelihood. An increase in the number of boats owned by local families over the last decade or so has helped people gain easier access to fish stocks. Koror State waters, which adjoin the major population centre of Palau and are therefore easily accessible, continues to be an extremely important and heavily relied on area for fisheries. The area is also important for commercial fisheries, and therefore a source of income for local commercial fishermen. There are also threats from illegal foreign fishing. Outside of coastal waters, foreign fishing vessels operate. There is a license system in place, but Palau lacks sufficient capacity for effective enforcement to ensure compliance.

Baseline projects and resources that will be committed from them:

Palau's Ministry of Natural Resources, Environment and Tourism houses several bureaus and offices involved with management of terrestrial and marine natural resources and with national biosecurity, including the Bureau of Agriculture (which houses the Divisions

¹⁹ US Department of Agriculture Forest Service (2015). Stakeholder Engagement and Partnerships for Landscape Transformation in the Republic of Palau.

of Biosecurity and Forestry), the Bureau of Marine Resources, the Bureau of Tourism and the Protected Areas Network Office. The Bureau of Agriculture's Forestry Division is responsible for providing support to states on forest management issues. The Forestry Division, in cooperation with the USDA Forest Service, conducts forest inventories to measure the status of forest resources in Palau to determine the extent, growth, composition, mortality, and health of forests as well as land use changes and potential for wildfire. The inventory consists of several permanent plots surveyed every 10 years, which provide limited data resolution at state level.

Palau's Bureau of Agriculture established its Plant and Animal Quarantine regulations in 1999 and revised them in 2008 and is responsible for the inspections of consignments of plants and plant products moving in international traffic and, where appropriate, the inspection of other regulated articles, particularly with the object of preventing the introduction and/or spread of pests. Palau's Plant and Animal Quarantines and Regulations (1999) contain schedules of prohibited plants and animals. These schedules were updated in 2002 to include any species or hybrid of tilapia (*Oreochromis* spp.), which is currently the only listed marine or aquatic species. In 2006, the regulations were again amended, giving the Palau National Invasive Committee (Palau NISC) the responsibility of reviewing applications for the importation of any species not already present within Palau. The Palau NISC has 30 days to carry out its review, but may request longer if further study (at the importer's expense) is required. This amendment also gives the Palau NISC the responsibility of advising the Palau Department of Agriculture on species that should be added or removed from the prohibited schedule. At ports of entry, including the post office, inspectors from the Palau Bureau of Agriculture are charged with carrying out inspections of cargo, mail, baggage, passengers, ships and airplanes. All live imports must have a permit issued by the Palau Bureau of Agriculture and live organisms must have received a certificate of health from their country of origin. Important organisms can be placed in quarantine for further observation and treatment at the importer's cost if necessary. In Palau, species intended for aquaculture must be approved by the Bureau of Agriculture, and are to be held in quarantine for seven days for observation by the Bureau of Marine Resources. During the project period, estimated investment by the BOA, including work of the Forestry Division and Biosecurity is US\$ 2,946,000.

EQPB regulates development activities involving earthmoving and structural development, with an estimated investment of US\$ 2,400,000 over the project period. The Office of the Palau Automated Land and Resource Information System (PALARIS) provides mapping and geographic information systems and services, which support land use planning with an estimated investment of US\$ 744,000 over the project period. The Fire and Rescue Division of the Bureau of Public Safety is mandated to suppress both urban and rural fires but is understaffed and has limited equipment, particularly on Babeldaob where there is no dedicated fire station. During the project period, an investment of US\$ 1,200,000 is estimated by the Division of Fire and Rescue. The newly established (in February 2014) Bureau of Tourism's goal is to establish Palau's National Tourism Master Plan and publish regulatory frameworks for the Tourism Industry, with an estimated investment of US\$ 415,000 over the project period. The Palau Visitors Authority (PVA) promotes and encourages the development and marketing of tourism. Its primary responsibility is to develop policies and guidelines to guide its marketing direction, and it acts as a liaison between the tourism industry and the community, particularly the states, in accessing and encouraging establishment of potential tourist sites and activities for spreading tourist traffic throughout Palau. It will make an estimated investment of US\$4,800,000 over the project period.

The Division of Fish and Wildlife Protection, in the Ministry of Justice, is tasked with the enforcement of laws relating to the protection of identified plants and animals including those listed in the Endangered Species Act. It is the primary authority to enforce the criminal laws protecting the environment inside the reef and associated with domestic fishing. The Division is responsible to enforce the provisions of the Palau National Code related to protected sea and land life, illegal methods of capture and to enforce laws related to PAs in Palau. The Bureau of Marine Resources (BMR) implements marine management measures with state governments. BMR has deployed fish aggregating devices in territorial waters around Palau in order to take fishing pressure off the reefs and promote a shift to pelagic fishes. Mooring buoys have been installed throughout the state of Koror as a management tool to decrease recreational impacts on coral reefs. Outside MPAs and other managed areas with very specific regulations, fishing is nationally regulated. Size restrictions exist for mangrove crab and lobster, and there is a total ban on harvest of humphead wrasse and bumphead parrotfish. The harvest of grouper is restricted to non-peak spawning months and the season is well established. Additionally, the export of lobster and mangrove crab is prohibited. Other restrictions are in place such as a closed season on harvesting green turtles and full protection for hawksbill turtles and dugongs. During the project period, an investment of US\$ 3,300,000 is estimated by BMR. The Division of Marine Law Enforcement, also in the Ministry of Justice, is responsible for patrol and surveillance and response, seizure, arrest and investigation for prosecution of illegal fishing and activities within Palau's territorial waters, with an estimated investment of US\$3,972,000 over the project period.

Koror State government's Department of Conservation and Law Enforcement is the state government agency primarily responsible for management of the Rock Islands management area. The current department budget is allocated to management costs that include personnel, fuel, boat and vehicle maintenance, supplies, marine buoys and channel markers, Jellyfish lake improvements, and communication. Koror State government also invests in coastal management and park maintenance programmes. Total estimated investment over the project is US\$ 10,872,000.

The regional Pacific Adaptation to Climate Change (PACC) project (2009-2014), supported by UNDP and SPREP and financed by GEF-Special Climate Change Fund and AusAid (investment of US\$800,000 for Palau), has focused in Palau primarily on enhancing food security and problems faced by farmers in a changing climate. It has supported the following activities: lowland taro production (including trialling salt-tolerant varieties), upland agroforestry, aquaculture and food processing. This investment has contributed to a 'Go local' food campaign, carried out training in local food processing and cooking and trialled new upland agroforestry systems combining fruit trees and crops with techniques to maintain and improve the soils easily eroded volcanic soils.

Multiple NGOs and research institutions carry out important research and provide technical support to the national and state governments of Palau in the fields of terrestrial and marine natural resource management and monitoring. Palau Conservation Society, Palau International Coral Reef Centre (PICRC), the Coral Reef Research Foundation (CRRF), The Nature Conservancy, Palau Community College, the Institute of Pacific Islands Forestry, Belau National Museum, Island Conservation and other organisations all conduct relevant baseline work in support of the goals of this investment, and estimated investment by these organisations over the project period is US\$27,030,000.

In addition, the following baseline initiatives will be implemented during the project implementation period:

(i) The ‘Promoting climate change resiliency through eradication and early response to IAS in Micronesia’ project (2015-2018) is a proposed multi-national regional project involving Federated States of Micronesia, Palau and the Marshall Islands, with an investment of US\$ 985,000. Its goals are to support the Micronesia Conservation Trust and their partners to manage and eradicate terrestrial invasive plants, conduct trainings for relevant personnel in the three countries on IAS present in other parts of the region, and support the Micronesia Regional Invasive Species Council to implement the Micronesia/Regional Biosecurity Plan.

(ii) The Micronesia/Regional Biosecurity Plan (the Regional Biosecurity Plan for Micronesia and Hawaii or RBP) has been developed through a US Department of Defense funded, multi-disciplinary effort of federal and regional scientists and experts. The purpose of the RBP is to address terrestrial, marine and freshwater IAS risks to the RMI, Palau, FSM, Guam, the CNMI and Hawaii. This regionally-vetted plan informs implementation efforts across the Region.

(iii) The UNEP supported GEF financed Ridge to Reef: Advancing Sustainable Resources Management to Improve Livelihoods and Protect Biodiversity in Palau project (2015-2019) with expected investment of US\$3,783,000 seeks to 1) Strengthen the PAN 2) Provide momentum to SLM by establishing a coordinating body, support the 3 other States of Babeldaob and Koror State with sustainable land use plans (this proposed project will cover other States of Babeldaob) and develop best practice guidelines; and 3) develop formal mechanisms to coordinate PAN and SLM and incorporate cross-sector issues into development and conservation activities at multiple scales. Efforts are underway by the RISC and partners to secure funding for full implementation of the RBP across the region. This proposed project will work together with the UNEP project to ensure a whole-island approach integrating BD concerns and integrated forest management principles (e.g. emphasizing connectivity, corridors and resilience to climate change) into state land use plans.

Root causes and barriers that need to be addressed:

Palau is changing rapidly and threats to biodiversity and ecosystem services are mounting from multiple pressures. The long term solution sought by the project is for Palau to mainstream conservation and biodiversity safeguards into landscape, forest and seascape planning and management and into key economic and productive sectors to shift to more sustainable, inclusive and equitable development. To achieve this, actions must be taken to strengthen capacity and coordination among the national and state levels on natural resources management and prevention and management of invasive alien species. There are three major barriers to implementing this solution, described below:

Barrier 1: Inadequate national enabling and institutional framework to safeguard biodiversity and support Integrated Natural Resource Management and effective prevention, detection, control and management of IAS.

Palau lacks a national policy and strategy on forestry or agriculture and as yet there are no guidelines or plans for sustainable development of forestry, agriculture or aquaculture. Although a nationwide forest resources assessment has been conducted, without a national strategy, clearing of forest for development is opportunistic and ad-hoc and done without consideration of KBA locations, distribution of endangered species, or taking into account the current or potential value of biodiversity and ecosystem services. As the above sectors are national priorities for development and have significant potential to impact biodiversity, assessments and specific guidelines are needed to guide the development of these sectors in a sustainable manner that will not degrade the biodiversity that underpins life and the economy of Palau. Currently, Palau has limited expertise and capacity to address socio-economic issues, and therefore technical assistance and expertise in this area are needed. The Division of Forestry is mandated to provide technical assistance to states but has limited staff, technical capacity and funding, and support that has been provided from the USDA Forest Service is expected to be reduced in the next few years. The impacts of tourism are already of concern, and though there is desire to shift towards sustainable tourist practices, a business development plan that outlines concrete options and steps towards developing biodiversity-friendly tourism and how this will add value, including through certification, is lacking. There are also gaps in legal and regulatory frameworks that allow threats to biodiversity to continue unabated that need to be addressed in view of accelerating drivers of change. Following increased pressures, it is important that legislation is updated to reflect new activities, resource uses, and threats. Capacities and protocols to ensure compliance with existing regulations and licencing systems at the national level in Palau’s territorial seascape are also lacking. Approaches to biosecurity and IAS prevention, detection and management are fragmented and need to be properly capacitated. Protocols and quarantine mechanisms for preventing IAS, including fines and fees, need to be standardized to ensure efficiency and consistency with international standards. Supporting the National Invasive Species Committee is the first step to doing this and a National Invasive Species Office needs to be institutionalized and capacitated to update and lead a national action plan on IAS. An important priority under implementing the national action plan on IAS is to integrate IAS prevention and management into the PAN to conserve the endemic and endangered biodiversity they harbour. Given increased trade and travel in the region and the number of very high risk invasives present in neighbouring countries (e.g. brown tree snake, Little Fire Ant and Asian cycad scale in Guam), the Regional Biosecurity Plan for Micronesia and Hawaii (RBP) was developed to guide regional coordination of efforts, however there is a critical need now to implement this plan in Palau to strengthen prevention on entering the country of high risk IAS with negative impacts on biodiversity, the economy, tourism and food security and to support regional coordination on biosecurity efforts to respond to new developments. A few agencies and organisations have established information systems and data collection efforts on biodiversity

and threats, including IAS and wildfire, but these data are dispersed and fragmented. Efforts on data collection and compilation need to be supported and consolidated to identify priorities and provide consolidated tools where data from all institutions/organizations converge in a standardized manner for decision makers. Information on the potential costs/benefits of different interventions is not available. E.g. economic data showing the cost-effective added value of improved prevention frameworks for IAS versus more traditional approaches of control and eradication would be valuable in making the economic case for improved biosecurity. An effective and comprehensive awareness strategy on IAS, biosecurity and best practices in tourism is also lacking and urgently needed. Finally, an important barrier to more effective planning and decision making on integrated landscape planning is weak coordination between the national and state levels and inter-sectorally to achieve buy-in and ensure effective implementation. A coordination body or framework for communication, consultation, coordination and mobilization among all states and the national government on these issues to facilitate coherence and increase awareness and support is lacking. Although Palau has developed regulations on resource extraction and on protected species (e.g. humphead wrasse), monitoring and enforcement capabilities need to be strengthened to ensure effective monitoring, detection and enforcement of these regulations and to prosecute violations.

Barrier 2: Limited capacity and experience in managing land and forest resources at the landscape level on Babeldaob island through an integrated approach and in developing and implementing sustainable practices on the ground

Babeldaob's rich native forests, including mangroves, house globally important biodiversity and provide vital ecological services that help maintain the health and integrity of all terrestrial and marine ecosystems through, for example, sediment trapping, climate stability, nurseries for reef fish, soil production and conservation and as watersheds. However, awareness of the value of this terrestrial biodiversity and standing forest is low. Baseline data to establish the conservation status of endemic plant species is lacking and technical capacity and monitoring protocols are needed. Current development planning is done without full consideration of High Conservation Value Forests or KBA locations, distribution of threatened species or taking into account the current or potential value of biodiversity and ecosystem services. Melekeok, Aimeliik, Koror and Arai states have or are developing land use plans with support provided by various organisations and GEF 5. But 7 states of Babeldaob (Ngarchelong, Ngardmau, Ngaraad, Ngiwal, Ngchesar, Ngatpang, Ngeremlengui) lack any land management plan. Furthermore, an ad-hoc approach to development with no guiding strategy or plan makes precious native forest highly vulnerable to conversion, degradation and fragmentation, reducing connectivity and increasing risks from wildfire, IAS and exacerbating soil erosion. This threatens both terrestrial and marine environments. Capacities – in terms of technical, people, equipment, funding - are lacking for sustainable forest management and restoration and in integrated landscape level planning to sustain optimal benefits. Babeldaob island has no fire station/response unit and urgently needs fire equipment and an instituted unit with staff and protocols to effectively respond to and control wildfires that degrade forest and land and increase invasions of IAS. States of Babeldaob are keen to develop more and diversified terrestrial tourism opportunities and the outstanding natural areas of the island hold great potential for high end eco-tourism products to be developed that could increase value, but concrete demonstrations to serve as examples are lacking. This would also help distribute tourist activities more equitably between land and sea. As agricultural operations expand and land degradation continues, demonstration of biodiversity friendly sustainable land and forest management practices, such as organic agroforestry that can provide both food and timber to communities, is urgently needed while ensuring that this is practiced responsibly in areas where it will help combat land degradation with no negative impacts on native forest.

Barrier 3: Limited capacity in Koror and Peleliu and lack of concrete demonstrations of effective responsible management of tourism, fisheries, aquaculture and IAS at the seascape scale combined with intensive pressures

Despite their heavy use, there are few zones and associated regulations to govern activities in waters of the Southern Lagoon States of Koror and Peleliu, such as tourism sites, subsistence and commercial fishing and other extractive activities. Following increased pressures in this area, it is important that management, regulations and legislation are updated to reflect new activities, resource uses, threats, and management concerns (such as mounting pressures on the reef). There are currently few incentives for good practices in the tourism sector to reward well performing companies nor effective penalties for companies and individuals to prevent damaging practices. Zones for activities and resource use, particularly relating to fisheries and development, need to be established. Effective monitoring and enforcement of those regulations is also vital. Increasing boating and water activities in the coastal zone has both safety and environmental issues, and must be managed accordingly. Faced with a large management area, the range of regulations to enforce, and the number of conflicting and increasing resource uses, assistance is needed to support effective management and compliance. Capacity for effective surveillance and enforcement needs to be strengthened, by reviewing and developing new enforcement and surveillance activities and tools. Koror State Rangers program needs to be adequately staffed, trained and resourced to meet new management challenges and system instituted in Peleliu. Developing communication and strong working relationships with partnering agencies involved in management activities, with key stakeholders, including the tourism industry, fisheries groups, and the wider community is essential for coordination of efforts, long-term management, community engagement with goodwill and compliance. Capacity to implement activities needs to be strengthened, including the development of regulations and zones, increased enforcement efforts and associated equipment, and the development of specific programs and plans. Standards need to be raised among tour guides and operators responsible for groups of tourists to prevent damage to corals, spread of IAS and rubbish accumulation. The private sector – hotels and resorts - is not currently actively involved in or investing in conservation or restoration though it holds responsibility for impacts and despite the potential value added through partnerships for biodiversity conservation and outreach. Despite considerable practical experience in the field eradicating IAS from and restoring small islands, there is no agreed model and clearly articulated best practice on when to undertake eradications, particularly when is it the most cost-effective method, what are the agreed conditions for implementing eradication, what measures are needed to ensure re-invasion is prevented and the best methods for eradication. Comprehensive eradication and prevention of re-establishment plans

urgently need to be developed and implemented for rats, which pose a major threat to the globally Endangered Micronesian megapode limestone islands of these states, are a major pest, and are deemed cost-effective to eradicate. If such prioritization and planning can ensure eradication and prevention of re-establishment, then such solutions will be of great economic value to Palau in years and decades ahead in making the case for stronger biosecurity.

Proposed alternative scenario, with a brief description of expected outcomes and components of the project, incremental cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing

The objective of the project is: to mainstream conservation and biodiversity safeguards into landscape, forest and seascape planning and management and into key productive and economic sectors in Palau. The following three components have been designed to achieve this aim and overcome the barriers listed earlier.

Component 1: National enabling and institutional framework for integrated land and seascape planning and management, and mainstreaming of biodiversity into key sectors

This component will establish a solid framework for landscape level planning and management in Palau. A National-State coordination and joint landscape planning platform, including relevant national inter-sectoral and state representation, will be established within existing governance structures to facilitate engagement, transparency and coordination among key decision-makers, sectors and stakeholders at the national and state levels. This will serve as a key forum for information sharing, engagement, consultation, planning and mobilisation on the strategies and decision making tools developed through the project to enhance support to states on these issues and national coordination. Building on Palau's Statewide Forest Resources Assessment (2010), the project will develop a National Forest Policy and Strategy that adopts the High Conservation Value Forest (HCVF) approach and emphasises connectivity among forests. This strategy will cover all forest types in Palau, including mangroves which have received little attention to date but comprise a significant proportion of the country's forest and provide important services. Guidance on best practices will build on the traditional management approaches practiced for many years in Palau while combining them with modern techniques. The Forest Division will be capacitated to provide effective technical assistance and support to states on forest management and restoration. Effective data monitoring protocols will be developed and implemented to fill gaps, building on existing forest inventory, biodiversity and threat data collection efforts. These will be consolidated with current dispersed data collection efforts and developed into geospatial monitoring tools on forests, terrestrial and marine biodiversity, to provide effective decision support tools. Economic valuation will also be conducted to make the business case for conservation and sustainable management of natural resources to decision-makers and stakeholders at national and state level, including of forest resources and strengthened biosecurity measures (e.g. cost/benefit analysis of improved IAS prevention frameworks vs. more traditional approaches of control and eradication). Awareness campaigns will be targeted at positive behaviour change in the key audiences and stakeholders (national, state and private decision-makers, tourists and tourism sector, local communities, fishermen, farmers) that are impacting biodiversity, linked to the project's interventions. This will include a video for tourists to be screened on arriving planes that highlights the outstanding terrestrial and marine biodiversity of Palau as an attraction, as well as its fragility, and outlines 'best tourist behaviour' while visiting to protect it (e.g. biosecurity procedures at the airport and products that need to be declared, not buying illegal wildlife products in stores, avoiding littering, avoiding illegal fishing or feeding the fish, and the importance of not touching or breaking the coral/best snorkelling and diving practices) as well as relevant laws, regulations and the penalties (e.g. fines or being stopped from participating in activities if breaking these laws) for violating these.

Business development plans that integrate biodiversity concerns (including prevention of IAS and threats from fires) will be developed for eco-tourism, agriculture and aquaculture, including a set of minimum standards, to guide responsible practices in these sectors while providing a concrete strategy and financing plan for their sustainable development to enhance economic sectors in Palau. These plans will build on and integrate relevant tools, strategies and lessons developed and gained through the baseline work, including the PACC project's work with these sectors and Palau's 2015 Climate Change Policy. SEA will define spatial areas where development of these activities is best implemented or avoided to inform the business development plans. These tools will be used to develop proposals for enhanced permitting systems to avoid, mitigate and manage impacts on ecosystems and biodiversity and the project will work with states and EQPB on these with the aim of having them legislated. This work will provide a stronger regulatory, monitoring and enforcement framework to avoid, reduce and mitigate adverse impacts of these sectors on biodiversity, and emphasis will specifically be placed on maintaining the ecological integrity of the HCVFs (to be identified under Component 2) and in and around the existing PA system. At the same time the project will strengthen the capacity of EQPB to enforce, develop and monitor regulations and practices. A gap analysis with respect to threats to biodiversity of relevant legislation will be conducted to identify critical areas where the current framework needs to be strengthened and new policies developed, proposed and legislated to address these. The national certification/green label for tourism and associated infrastructure and products that will be developed under the project will allow companies that apply good practice to be recognised for their efforts.

This component will also advance a consistent and comprehensive prevention, early detection, control and management framework that emphasizes a risk management approach by focusing on the highest risk invasion pathways to biosecurity throughout the country, as it is the most likely way to reduce overall effort and costs associated with IAS control and management and would serve to increase clarity and possibly compliance. To do this, the National Invasive Species Office will be capacitated to serve as the focal point, coordination body, communication and training centre for biosecurity activities. This will include support for regional coordination on biosecurity and IAS. Support will be provided to update and implement the Strategic Action Plan on IAS, to develop blacklists of high risk IAS that are prevented from entry, emplace measures to strengthen prevention on them entering the country, to emplace Standard Operating Procedures that have proven effective and efficient, and to develop white lists of species which can safely be imported. This

national strategy will include integration of IAS prevention and management into protected area management by working at priority PAN sites to develop and implement biosecurity and IAS management plans to prevent new invasions or reinvasions that threaten endemic and endangered biodiversity. A cost recovery system where biosecurity fees and penalties are appropriately assessed, instituted, and enforced across the board will be replaced with a mechanism for investment of these funds in supporting biosecurity and IAS management. An Early Detection and Rapid Response (EDRR) system for terrestrial and marine environments and associated financing system will be developed and initiated to test strategies for reducing IAS establishment and spread, as well as long-term IAS management costs. Finally, the project will work to strengthen national capacity for effective monitoring, surveillance and increasing compliance with existing laws by the Divisions of Fish and Wildlife Protection and other relevant regulatory agencies (incl. BMR) to prevent, respond effectively to and prosecute violations.

Component 2: Integrating conservation and biodiversity safeguards into landscape planning and management in Babeldaob

Building on component 1, this component will support the 7 states of Babeldaob (Ngarchelong, Ngardmau, Ngaraad, Ngiwal, Ngchesar, Ngatpang, Ngeremlengui) that are lacking any land management plan to develop Integrated Forest and Landscape Management Plans (IFLMPs) based on the HCVF approach and emphasising connectivity. These will be state driven and informed by the HCVF assessment and national strategy under component 1, and will integrate IAS and climate change considerations to address cross-cutting threats. With project support, states will identify areas of HCVF forest across a range of types, to be conserved/set aside for non-exhaustive forest use (15,000 ha in total across Babeldaob). Through the decision support systems developed under component 1, states will be able to determine where critical habitats are, which areas have greatest ecosystem service and biodiversity values, which threats these face, and what the effects of land degradation are. States will be supported to develop the IFLMPs using this information to define zones and which areas are available for development and which are set aside using a landscape perspective to sustain ecosystem services and critical biodiversity areas, and to address land degradation effectively. The HCVFs will be legislated in the individual states through bylaws and the IFLMPs developed. Standardised monitoring protocols will be replaced building on current approaches, but at a greater resolution. Community based restoration of approximately 1,000ha of degraded forest will be supported using proven methodologies (such as incremental expansion of native forest islands in savannah areas) in strategic areas and buffer zones to reduce risks to native HCVF forests from fire and IAS. Training and support for community-based sustainable forest management and restoration will aim to link traditional practices with modern techniques. Through this support, the states, communities and target organisations will build their capacity in landscape level integrated management to maximise ecosystem service and biodiversity benefits. Importantly, Babeldaob will be capacitated with staff and critical equipment needed for effective fire response with supporting protocols, so that fires can be properly managed and extinguished. Support for awareness campaigns through local community mobilisers trained through the project will also focus on increasing awareness of local people and sectors on the risks from fires and IAS pests to reduce incidents of arson and agricultural burning. To link sustainable economic development to HCVFs, the project will develop and promote sustainable, biodiversity friendly ecotourism products on Babeldaob. It will identify economically-feasible options for the local population and the private sector for developing these, such as guided forest birding, mangrove kayaking and guided forest nature tours, and eco-lodges, etc, and provide appropriate training. These will be developed in line with the standards and certification under component 1. The project will also support local communities/CBOS to implement biodiversity friendly sustainable land and forest management practices in 500ha, such as organic agroforestry using only native tree species, conservation agriculture, etc, along with business plans to sustain these. Areas for development of sustainable land and forest management practices will focus on degraded areas wherever possible to counter-act land degradation and will be informed by the SEA for agriculture under component 1. Experiences, results and lessons gained through these demonstrations will be shared at national and state level through the joint coordination platform and with relevant sectors and stakeholders to provide concrete demonstrations of the value-added of such enterprises. The project will also explore opportunities to exploit and scale up participation in online data collection and compilation crowd-sourced tools already initiated, such as online bird sighting reporting tools.

Component 3: Rehabilitation and responsible management of tourism, fisheries and aquaculture in the Southern Lagoon States of Koror and Peleliu

This component will mainstream biodiversity into the coastal zone of Koror and Peleliu (total area of more than approx. 264,686ha). Support will be provided to zone the coastal zone for different uses (including tourism, various fisheries zones including local and recreational, aquaculture, etc) for optimal management based on key data on the seascape. This will include identification and gazettement of areas sensitive/critical for biodiversity and boundary demarcation. It will also include development and implementation of strengthened protocols for preventing IAS introduction and spread through the tourism and other sectors. Fisheries management measures will be consulted on, tested and implemented through existing engagement mechanisms with local communities. This will be linked to support for sustainable alternative livelihoods that targets those most reliant on fishing for their living. Support will be provided to strengthen surveillance and enforcement in the coastal zone (particularly practices in tourism, fisheries and aquaculture and at key sites such as jellyfish lake), including through capacitation and training of Koror and Peleliu state rangers. A system of relevant and effective penalties for violations and misconduct will be developed, adopted and enforced. Finally monitoring programmes following standardised protocols will be employed to gauge the health of terrestrial and marine environments and status of IAS to inform adaptive management, and will feed into the geospatial data tools developed under component 1. The project will work with Koror state and Palau Community College to mainstream biodiversity (including IAS prevention and management actions) into the responsible tourism guide and operator certification training that they are currently developing, and work to scale this to a national model. The project will work with Koror state and other states to make this certification mandatory and provide support for Palauan nationals to undertake it. Incentives/disincentives for promoting adherence of tourism sector to the new standards developed under component 1 will be developed (e.g. introducing taxes and charges levied on tourism enterprises which are not adopting environmentally friendly practices) in concert with strengthened surveillance and enforcement. The project will work with hotels/tour

operators to pilot private-community partnerships for conservation and restoration (e.g. hotel resort and community mangrove restoration with interpretation as an education feature/attraction). The project will also work with hotels and tourist resorts to create their landscaped gardens as “Invasive Free Zones” by working to convert exotic plants to all non-IAS, and integrate this practice with the certification/green label developed under component 1. Based on a system (developed by Island Conservation, and to be updated during PPG) to prioritize island IAS eradication and restoration activities, the project will also implement eradication where it is the only viable option and/or more cost effective than continued control and monitoring and where they provide the highest biodiversity return on investment. The preliminary focus area of high biodiversity where the eradication projects will take place is the limestone islands of these states, where IAS are a major threat to a number of native species, in particular the Micronesian Megapode (see Annex II). Numerous successful rat eradication projects have been undertaken globally and in the region with high percentage of success. The methodology and conditions for successful eradication of rats are well known; hence the focus on this IAS. Detailed Rat and IAS Eradication and Prevention of Re-establishment Plans, including communication and awareness raising to prevent re-establishment, will be developed for each of the islands where eradication work will take place, together with a financing plan. These plans will within the island group define which islands are the most cost-effective to eradicate first, targeting smaller islands first before moving to medium and larger islands. A study on the present and potential economic impacts of the selected IAS populations on biodiversity, economic sectors and livelihoods (if relevant) will be conducted. The case of non-action and economic impact should be clearly communicated to obtain public support and additional financing for the further eradication. A monitoring programme will be developed for each targeted island to monitor recovery of Micronesian Megapode. Finally, relevant staff will be capacitated to implement the eradication and prevention on re-establishment plans.

Summary comparison of baseline and alternative scenarios and global environmental and development benefits

Baseline practices	Alternative to be put in place by the project	Selected environmental and development benefits
NATIONAL LEVEL		
<ul style="list-style-type: none"> - Lack of national framework for landscape level planning and management and absence of any guiding forest policy/strategy results in weak coordination at the national-state level and ad-hoc approach to development that does not support optimizing the resilience of the landscape, take account of ecosystem and biodiversity values nor incorporate the HCVF approach, leading to degradation of land, forest and marine ecosystems. - Forest Division lacks sufficient capacity to provide effective technical support to states on sustainable forest management. - Data collection efforts on BD and threats are fragmented and decision makers lack necessary information on the costs/benefits of different interventions or the values of biodiversity and ecosystem services to consider in landscape planning and management decisions. - Key stakeholders are unaware of the damaging impacts of their actions on fragile terrestrial and marine ecosystems and biodiversity, the economic implications of this degradation, regulations to protect them and the penalties for breaking these. - Lack of business development plans to guide biodiversity-friendly development of national priority sectors (eco-tourism, agriculture and aquaculture), results in their ad-hoc development and damaging practices that degrade biodiversity and ecosystem services. Absence of green certification for tourism industry means that well performing companies are not recognized for the value added of their performance and provides no incentive. - EQPB lacks capacity to effectively develop, monitor and enforce existing regulations and effective practices above sectors, results in un-checked threats, 	<ul style="list-style-type: none"> - National-State coordination and joint landscape planning platform provides forum for communication, consultation and landscape level planning adopting the HCVF approach, coordinated development of National Forest Policy and Strategy to sustain ecosystem services and conserve globally significant biodiversity. - Forest Division capacitated to provide effective technical support to states, including to adopt the HCVF approach. - Data collection efforts are consolidated and standardized, economic valuation of different land use options conducted, and systematic monitoring protocols implemented. These are used to develop geospatial monitoring and decision support tools, resulting in strengthened capacity for landscape level planning and adaptive management. - National awareness campaigns developed linked to the incentives/disincentives and enhanced policies and enforcement systems instituted through this project increase the awareness of key stakeholders and decision makers of the impacts and consequences of their actions resulting in behavior change. - National business development plans for eco-tourism, agriculture and aquaculture that integrate biodiversity concerns (including IAS) in place combined with SEA for each sector supports sustainable development of these sectors to strengthen food and livelihood security, diversify the tourism sector and sets minimum standards to avoid degradation of biodiversity and ecosystem services. Green certification label for tourism industry recognizes companies for good performance and provides incentive to raise standards. - EQPB effectively capacitated to develop, monitor and enforce regulations, results in increased compliance and reduced threats/degradation of biodiversity and ecosystem services. - Gaps in laws and policies that pose key threats to biodiversity and ecosystem services identified, and proposals to address these developed, proposed, 	<p>SFM Benefits:</p> <ul style="list-style-type: none"> - National forest strategy and planning incorporates the HCVF approach and capacities enhanced for integrated sustainable forest and land management results in improved functioning of terrestrial ecosystem services (such as carbon sequestration, watershed functions, enhancement of tourism assets). <p>BD Benefits:</p> <ul style="list-style-type: none"> - Increased awareness of tourists, tourism operators and other stakeholders, including of penalties for damaging practices, results in reduced threats to globally significant biodiversity and ecosystems, including the species mentioned below. - National business development plans and improved regulatory, monitoring and enforcement framework in place to avoid, reduce, mitigate and offset adverse impacts on biodiversity of agriculture, aquaculture and tourism sectors results in improved production sector practices that integrate biodiversity concerns in their management. - National: Green label in place for environmentally friendly tourism establishments encourages and rewards good performance and raises national standards for tourism development. - Global: IAS of high risk to biodiversity, food security, the economy, prevented from entering and establishing in Palau

<p>violations and illegal development.</p> <ul style="list-style-type: none"> - Gaps in legislation result in unabated threats to biodiversity as drivers of change accelerate. - Lack of adequately resourced central national office to lead on biosecurity and IAS management results in inefficient and ad hoc approaches to IAS, without clearly defined priorities or adequate capacity to guide or implement actions effectively. - Lack of strategies and actions in place to prevent highest risk IAS to biodiversity, food security, the economy, from entering the country and from spreading to PAN sites. - No systems for EDRR results in introduced IAS establishing and populations growing to the point where they are very difficult to address. - Lack of adequate capacity to effectively monitor, detect, enforce and prosecute existing laws and licensing systems in Palau waters results in violations that threaten marine biodiversity. 	<p>legislated and enforced reduces threats.</p> <ul style="list-style-type: none"> - National IAS Office capacitated to serve as focal point, coordinating body, communication and training centre for biosecurity activities and supported to enhance regional cooperation and coordination and implement priority actions under regional and national action plans. - Development and execution of national action plan on IAS enhances prevention of IAS entering country, reduces risk of spread in country and new invasions at PAN sites. - EDRR mechanisms for terrestrial and marine environments in place reduces IAS establishment and spread, as well as long-term management costs and lessons learned inform development of national EDRR systems. - Divisions of Fish and Wildlife Protection and relevant regulatory agencies capacitated to strengthen monitoring, surveillance and compliance with existing laws and to prevent and respond effectively to violations, results in increased compliance. 	<p>resulting in reduced threats to globally significant biodiversity, including globally Endangered <i>Cycas Micronesia</i>, Micronesian megapode <i>Megapodius laperouse</i> and Palauan endemic species.</p> <ul style="list-style-type: none"> - Global: Improved monitoring and enforcement results in reduced threats to globally important species protected by existing and new regulations, such as Endangered Humphead wrasse <i>Cheilinus undulatus</i>, conserving key dive tourism assets.
--	--	---

BABELDAOB ISLAND

<ul style="list-style-type: none"> - Ad-hoc and unabated development leads to deforestation and degradation of native forest, threatening globally significant biodiversity and results in increasing land degradation, loss of ecosystem services, and siltation of marine environments. - Forests are susceptible to loss and degradation from IAS and wildfire around degraded areas of savannah. - Loss of forest, native biodiversity and human life continues on Babeldaob which lacks adequate capacity for effective fire prevention and response. - Insufficient incentives to conserve native forest and biodiversity for sustainable uses. 	<ul style="list-style-type: none"> - Integrated Forest and Landscape Management Plans developed, implemented and enforced for 7 States on Babeldaob Island that adopt the HC VF approach and integrate IAS and climate change considerations. These include 15,000ha of HC VF forest conserved/set aside for non-exhaustive forest use. - Community-based restoration of approximately 1,000ha of degraded forest/savannah to reduce risks from wildfires and IAS. - Babeldaob capacitated for effective fire management and response to reduce threats from wildfires and IAS invasions. - Development of sustainable, biodiversity friendly ecotourism products (forest birding tours, mangrove tours, that are operated in compliance with standards developed under component 1) with community participation, and visitor management capabilities. - Biodiversity friendly sustainable land and forest management practices implemented by local communities in 500ha, such as organic agroforestry using only native species, conservation agriculture, etc, with business plans in place to sustain. 	<p>SFM Benefits: Pressures on forest landscapes reduced in 7 States of Babeldaob</p> <ul style="list-style-type: none"> - Identification, management and monitoring of HC VFs with States and participation of local communities. - Set-aside areas (HC VFs) for non-exhaustive forest use (tourism) of at least 15,000 ha results in improved functioning of ecosystem services and sequestration of 775,511 tCO₂eq over a 10-year period. - Restoration of approx. 1,000 hectares of degraded forest/savannah reduces risks from wildfires and IAS invasions and counteracts ongoing and past land degradation. - Enhanced local capacities emplaced for implementation and enforcement of sustainable forest and land management as measured. <p>LD Benefits:</p> <ul style="list-style-type: none"> - Reduced land degradation over the 7 states as result of strengthened forest conservation and management, restoration of degraded areas and reduced threats from IAS and wildfire, and sustainable land management practices implemented by local communities. <p>BD Benefits:</p> <ul style="list-style-type: none"> - Increased or stable populations of species such as Globally Endangered Palauan sub-species of the Marianas' fruit bat <i>Pteropus mariannus pelewensis</i>. - Reduction in pressures to area of old and high biodiversity forests, including mangroves. - Incentives and other benefits to community are directly linked to forest and wildlife protection, providing an incentive for conservation. - Reduced risks to high biodiversity forests from wildfires and reduced risk of IAS spread.
---	--	--

SOUTHERN LAGOON STATES OF KOROR AND PELELIU

<ul style="list-style-type: none"> - Combined pressures from multiple uses, including rapidly increasing tourism and declining fisheries results in further degradation of marine ecosystems and biodiversity with economic implications. - Increasing numbers of tourists, tour guides and operators flout regulations and degrade marine environment through careless practices such as trampling corals. - Insufficient incentives for tourism sector to implement sustainable practices in line with products developed under component 1. - Resorts continue to be un-engaged in conservation and management of the biodiversity that sustains their businesses, missing a key opportunity to add value to their business. - Asian cycad scale and other IAS that find a pathway through landscaped gardens enter and spread in Palau. - Rats proliferate and spread throughout Rock Islands degrading globally significant biodiversity and harming the tourism sector as a pest. 	<ul style="list-style-type: none"> - Seascape spatial mainstreaming plan is developed, implemented/legislated and enforced zones for different uses for optimal management, increases compliance, reduces threats and facilitates adaptive management. - Biodiversity (including IAS prevention and management actions) is mainstreamed into responsible tourism guide and operator certification training, results in increased compliance and reduction of threats. - Incentives/disincentives for promoting adherence of tourism sector to new standards (e.g. introducing taxes and charges levied on tourism enterprises which are not adopting environmentally friendly practices) and strengthened surveillance and enforcement. - Piloting of private-community partnerships for conservation and restoration (e.g. hotel resort and community mangrove restoration as education feature) and working with hotels and tourist resorts to convert landscaped gardens using exotic plants to native non-invasive species and ensure non-invasive native species used in future. - Eradication of rats (<i>Rattus</i> spp) and other IAS from selected limestone islands. 	<p>BD Benefits:</p> <ul style="list-style-type: none"> - Effective management of and reduced threats to globally significant biodiversity, including globally significant coral reef ecosystems in Palau's Southern Lagoon, indicated by improvements in fish stocks in designated zones and percentage live coral cover stable or increasing at specified critical sites during the project period. - All tour guides and operators complete the biodiversity friendly training certification, raising standards in Palau's tourism sector and reducing threats to globally significant biodiversity. - Conservation and restoration of mangrove forests through private-community partnerships results in private sector investment in conservation and restoration of forests with local benefits. - Long-term rehabilitation of terrestrial ecosystems and biodiversity on at least 50 hectares of habitat of limestone islands where rats have been eradicated resulting in stable or increasing populations of the globally Endangered Micronesian Megapode. - Reduced threats from IAS introduced through landscaping, including to the globally Endangered <i>Cycas micronesica</i>. <p>SFM Benefits:</p> <ul style="list-style-type: none"> - Conservation and restoration of mangrove forests through private-community partnerships results in private sector investment in conservation and restoration of forests with local benefits.
---	---	---

Innovation, sustainability and potential for scaling up

Innovation: This project builds on innovative work in Palau to use and promote ‘crowd-sourced’ data tools, such as online databases of rare and endemic bird sightings by birders/tourists, by promoting use of these tools in implementation of new BD based tours and eco-tourism products and by integrating this information into national geospatial tools. The terrestrial and marine EDRR mechanisms developed and tested through the project are a totally new approach for Palau. Private-community partnerships for conservation, which this project will pilot, have not yet been tried in Palau.

Potential for scaling up: Tools developed under component 1, such as the National Forest Policy and Strategy and BD friendly business development plans will have application potential in multiple states of Palau and could provide useful models for other countries of the region. The biodiversity friendly tourism guide certification will provide a model that can be used as other states of Babeldaob develop more tourism offerings. The experiences and capacity developed through the integrated forest and landscape plans and the combined actions to mainstream biodiversity in the coastal zone under components 2 and 3 can serve as models for other states. The terrestrial and marine EDRR mechanisms and biodiversity friendly tourism certification, will also be relevant to other countries of the region facing similar threats and have significant potential to serve as a regional models for replication. Regional coordination supported under this project, particularly on biosecurity and IAS, will facilitate regional learning and communication of these experiences, and promote scaling.

Sustainability: The national-state coordination platform that this investment will develop seeks to institutionalise joint planning and increased national, state and inter-sectoral coordination. Sustainability is built into the project because it works through established government entities and organisations in Palau to build their capacity in enhanced biodiversity and ecosystems management through multiple strategies, including building on existing regulation systems, instituting sustainable cost-recovery mechanisms including penalties and taxes, biodiversity-friendly business development in key sectors, and conservation partnerships with the private sector. This investment will also institutionalise and capacitate the National Invasive Species Office, which will provide a solid foundation for improved prevention measures. By providing decision making tools, including on the economic impact of IAS, the project will increase awareness among decision makers and other stakeholders on IAS and make the economic case for improved prevention.

2. **Stakeholders.** Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes /no)

Stakeholder	Role and Involvement in the Project
Ministry of Natural Resources Environment and Tourism (MNRET)	MRNET is responsible for oversight of government initiated agricultural, forestry, fisheries and energy programs and activities. MNRET oversees multiple natural resource management bureaus and offices, including BOA, BMR, BOT and PAN Office and will play a key role in project implementation.
Office of Environmental Response and Coordination (OERC)	Responsible for ensuring compliance with Palau's obligations under UN environmental conventions and coordination of national responses on environmental issues.
Ministry of Justice	Responsible for overseeing the courts and enforcing laws in Palau. The Bureau of Public Safety is the primary enforcement arm of the Ministry of Justice, under which DFWP and DMLE are included.
Division of Fish and Wildlife Protection (DFWP)	Primary authority for enforcing criminal laws protecting the environment inside of reefs. DFWP also plays a role in community relations and education regarding environmental issues.
Division of Marine Law Enforcement (DMLE)	Primary authority for enforcing fishing laws; largely concerned with marine areas outside the reef.
Palau Public Land Authority (PPLA)	PPLA administers, manages and regulates the use of public 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. Each state in turn uses the authority granted to it by the PPLA to administer, manage and regulate public lands within its geographical boundaries.
Office of the Palau Automated Land and Resources Information Systems	PALARIS provides valuable mapping services that support land use planning and management
Bureau of Agriculture (BOA)	Key agency in IAS prevention and management, integrated land, watershed and forestry management
Division of Forestry	Key agency in watershed and forestry management.
Bureau of Land and Survey (BLS)	Identifies land boundaries, including those of PAs
Bureau of Tourism (BOT)	Oversees tourism in Palau through establishment of industry standards and regulations; responsible for development of Palau's National Tourism Master Plan.
Bureau of Marine Resources	Key agency in marine research and development (including developing and promoting commercialization of mariculture species), resource management, technology transfer, technical advisory and extension services, statistical monitoring and recommending legislation. It is also responsible for management of tuna fisheries, including data collection and management.
PAN Office	Oversees Palau's Protected Areas Network and ensures biodiversity resources are effectively conserved.
Association of State PAN Coordinators (ASPC)	ASPC facilitates cooperation and mutual support among the PAN sites
Alliance of Palau Conservation Officers (APCO)	APCO is a collaborative capacity building network of state and national conservation officers which coordinates regular skills development and targeted training to enhance operations and compliance.
Ebiil Society	The Ebiil Society has been instrumental in engaging community and developing and sharing approaches in terrestrial revegetation, erosion control, best agriculture practices, and fire prevention techniques.
Palau Visitors Authority (PVA)	PVA plays an important role in developing tourism opportunities throughout Palau
Environmental Quality Protection Board (EQPB)	EQPB is a key organization in implementing current land management practices. 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.
State Governments	States are responsible for natural resource management within state boundaries.
National Invasive Species Committee (NISC)	National coordinating body on invasives
Coral Reef Research Foundation (CRRF)	Conducts marine research and monitoring, including on marine invasives.
Community-based Organizations	Community-based organizations provide community level support and guidance for conservation and development initiatives. CBOs that will be key stakeholders for this project include Palau Organic Growers Association.
Local communities	Local communities will be key beneficiaries of this project.
Protected Areas Network Fund	PAN Fund provides financial management for the PAN.
Protected Areas Network Office	Oversees management of the PAN throughout the nation
Association of State PAN Coordinators	The ASPC facilitates cooperation and mutual support among the PAN sites.
Palau Chamber of Commerce	The Chamber of Commerce is an important partner in setting development priorities and establishing community support for management actions and will be key to private sector engagement
Tri-Org	The Tri-Org supports economic development throughout Palau and will be key to private sector engagement
Belau Tourism Association	Membership organization for tourism sector businesses in Palau and will be key to private sector engagement
Palau Community College (PCC)	PCC is the lead post-secondary education institution in Palau and will be a key partner with Koror State in development of the tourism guide certification
Palau Conservation Society (PCS)	PCS is a natural resource conservation organization with expertise in communication, project management, and policy development
Palau International Coral Reef Center	PICRC is a key agency in researching and promoting conservation of marine ecosystems and biodiversity in Palau
Belau National Museum (BNM)	Key agency in researching and promoting conservation of terrestrial ecosystems and biodiversity
Belau Watershed Alliance (BWA)	BWA supports SLM through cross-boundary, ecosystem-based watershed management

The Nature Conservancy (TNC)	International environmental management and conservation organization with an office in Palau
Palau Conservation Consortium	Unofficial gathering of environmental professionals in Palau acting as individuals to share information

3. *Gender Considerations.* Are gender considerations taken into account? (yes /no).

Gender considerations will be fully integrated into the project strategy. This investment includes support for Babelaob’s western states, which are among areas of Palau in which households, and particularly women-headed households, are most likely to be experiencing poverty. Furthermore, the project supports interventions to strengthen food security (through reducing risks from IAS and business development of sustainable biodiversity agricultural practices). The project strategy will particularly consider gender aspects to ensure that women-headed households and lower income groups are given prioritised access to support. The project will ensure that both women and men are offered equal training opportunities supported through this investment. The project will ensure representation of both men and women in the coordination mechanisms and platforms established. Gender disaggregated target and baseline will also be established where appropriate as part of the project monitoring plan.

4. *Risks.*

Risks	Rating	Preventive Measures
Conflicts of interest, misunderstanding, different priorities and sensitivities of stakeholders constrain implementation of activities	Moderate	The components have been specifically designed to foster collaboration and communication among implementing partners, national government and states, and multiple stakeholders. Needs and priorities of stakeholders will be identified, and constructive dialogue, joint planning and problem solving will be promoted through the coordination platform, which will provide a mechanism for sharing information and consultation to achieve buy-in for project goals. The project will provide information and technical support to states and stakeholders so that they are actively involved in decision planning for activities and have ownership in the process. During the PPG a thorough analysis of stakeholders and the political environment will be conducted and used to support design and implementation of activities in a win-win manner wherever possible.
Private sector is not willing to invest in biodiversity conservation partnerships or biodiversity friendly tourism services	Moderate	The project will work through existing organisations in Palau that already have a good relationship with the private sector to foster collaboration and seek to achieve win-win conservation/economic outcomes. For example, where biodiversity serves as a foundation for diversification of the tourism sector, the project will identify, scope and provide concrete guidance and examples of how such opportunities can be harnessed.
Insufficient funding to continue necessary management after the project ends	Moderate	Governmental support for biosecurity, IAS, fisheries and forest management has increased in recent years. Many Palauans are aware of the value of their outstanding natural resources and Palau has begun to develop systems to finance conservation efforts. This project will build on and take advantage of this to develop further tools to guide decision making on quality investments and raise awareness, such as by providing analysis of the overall cost of ecosystem degradation and impacts of IAS compared to enhanced management and prevention. It will also provide technical support to develop concrete cost-recovery systems through development and enhanced application of fees and taxes.
Climate change may alter the threats and risks associated with land degradation and IAS	High	Climate change may raise the threat of IAS by increasing the frequency/severity of fires, floods, etc. and thereby decreasing ecosystem resilience and creating conditions where IAS can more easily become established. Climatic parameters will be included in the project’s risk analysis activities.

5. *Coordination.* Outline the coordination with other relevant GEF-financed and other initiatives:

The proposed project adds value to the related initiatives: The UNEP supported GEF financed *Ridge to Reef: Advancing Sustainable Resources Management to Improve Livelihoods and Protect Biodiversity in Palau* project. The main focus of this UNEP Project is primarily on the PAN Protected Area Network. It seeks to 1) Strengthen the PAN by filling key planning and information gaps; 2) Provide momentum to SLM by implementing its top two priorities of establishing a coordinating body and developing best practice guidelines; and 3) Develop formal mechanisms to coordinate PAN and SLM and incorporate cross-sector issues into development and conservation activities at multiple scales. This proposal has been carefully designed to build on and complement the work of this intervention and coordination with this GEF 5 project will be key. The UNEP GEF 5 Project focuses on Sustainable Land Management Plans in four States with more urban development, and the focus of this proposed project is on “Integrated Forest and Landscape Management Plans” developed with the remaining States of Babeladaob, with more forest resources. This project will work together with the UNEP project to ensure a whole-island approach integrating BD concerns and integrated forest management principles (e.g. emphasizing connectivity, corridors and resilience to climate change) into state land use plans. During the PPG this project will meet with the UNEP project and develop a coordination plan with regular meetings during implementation to ensure efficiency and complementarity in implementing the projects. The studies conducted and the information gathered under the GEF 5 project will also be integrated into project development and implementation once available.

The *GEF Small Grants Programme* is active in Palau and funds NGOs and CBOs. Opportunities for linkages among this investment and on-going SGP initiatives during the project will be explored in the PPG.

This investment has been designed to build on relevant baseline work, such as the recently closed Pacific Adaptation to Climate Change (PACC) project, by incorporating recommendations of that project’s evaluation, such as prioritising organic agriculture and fertilisation for SLM activities, and the PPG will further ensure consistency with and integrate relevant national and regional products, strategies and approaches on agriculture, aquaculture and coastal management, including lessons of the PACC and Palau’s Climate Change 2015 Policy into the development of this project.

6. *Consistency with National Priorities.* Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes /no).

The proposed project is consistent with national priorities and plans and will advance Palau's national targets and international commitments for biodiversity conservation. The project directly supports four strategic priorities identified by Palau's National Biodiversity Strategy (2014), and will directly implement or contribute to the following objectives under these areas: *Biosecurity*: Objective 3.2. Palau's National Invasive Species Strategic Action Plan (NISSAP, 2013) is effectively resourced and implemented so that prevention of IAS is strengthened and impacts of existing invasives are reduced. *Integrating biodiversity and ecosystem services into development policies*: Objective 4.2. Improve decision-making related to ecosystem management through the systematic use of environmental assessment tools and other scientific processes, and Objective 4.3. Address gaps in policies, laws and regulations to integrate biodiversity and ecosystem services into Palau's development objectives. *Reduce direct pressures on biodiversity through sustainable use*: Objective 5.1: Establish guidelines and standards to ensure sustainable tourism actions at the national and state levels, Objective 5.2: Establish guidelines and standards to ensure sustainable aquaculture, agriculture and forestry development and management. *Mainstreaming conservation*: Objective 7.1: Increase biodiversity awareness and public participation in environmental decision making process, Objective 7.4. and 7.5 Strengthen conservation capacity of residents, communities, government and civil society organisations in Palau. The project is also aligned with the Regional Biosecurity Plan for Micronesia and Hawaii and Palau's NISSAP as it supports implementation of high priorities identified under these to strengthen biosecurity and enhance IAS management in Palau, including capacitation of a National Invasive Species Office and integration of IAS into PAN.

Palau's National Action Plan to Combat Desertification identified nine major causes of land degradation in the country: 1. Lack of land use planning; 2. Development following completion of the Compact Road; 3. Drought; 4. Sea-level rise; 5. Loss of soil fertility; 6. Watershed degradation; 7. Invasive Species; 8. Uncontrolled fires; 9. Unsustainable development practices. This investment supports actions to address almost all of these drivers by supporting states on Babeldaob to develop forest and landscape management plans that integrate IAS and climate change concerns and reduce watershed degradation, capacitating Babeldaob for fire management and prevention, strengthening prevention and management of invasive species and demonstrating sustainable land and forest practices and restoration that sustain soil fertility and reduce threats from IAS and fires. The project is also consistent with Palau's 2015 Climate Change Policy because it contributes to priority interventions in various sectors, including to stabilize soils through re-vegetation, to increase the resilience of terrestrial and marine ecosystems and to establish appropriate measures to manage invasive species.

The investment contributes to the Aichi Targets under the following strategic goals: *Strategic goal B*: Reduce the direct pressures on biodiversity and promote sustainable use, Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced; Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity; Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent introduction and establishment; Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning. *Strategic goal C*: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity, Target 12: By 2020, the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has improved and sustained. *Strategic goal D*: Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

It also supports the emerging post-2015 development agenda by contributing to the following proposed Sustainable Development Goals: *SDG 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture*, by enhancing food security in Palau by reducing and addressing risks from IAS and supporting sustainable agricultural practices; *SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development* by testing and implementing fisheries management measures and by enhancing compliance and enforcement in seascapes of Palau; *SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss*, by supporting conservation and sustainable management of forests in Palau and implementing actions and management plans to reduce land and forest degradation.

7. Knowledge Management.

The project will develop audience-appropriate communication products and strategies designed to achieve behaviour change in target groups. E.g. a video for tourists highlighting the outstanding terrestrial and marine biodiversity of Palau as an attraction, as well as its fragility, and 'best tourist behaviour' while in Palau to protect it will be developed in various key target languages. This will be designed to complement and work in synergy with project interventions to strengthen policies, regulations and capacity for enforcement by raising awareness of responsible practices as well as what regulations are in place and the consequences of breaking them. Working with BOT and PVA, the project will aim for the video to be screened on planes to all visitors entering Palau. It will learn from successful examples in other countries and aim to leverage the significant marketing expertise of PVA, with their endorsement. Outreach with local communities and farmers to reduce wildfires will seek to scale-up on-going efforts through active and trusted champions and community mobilisers. User-friendly training and decision-making tools will be developed based on the experiences and lessons-learned through the project's demonstration activities (such as on BD-friendly tourism product development) and shared at state, national and regional level. Finally, the project will make the most of regional coordination on biosecurity and

IAS, including under the Regional Biosecurity Plan for Micronesia and Hawaii, supported under this investment as well as international/regional meetings and fora to foster regional exchange of lessons learned and replication of successful initiatives developed under this project.

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

A. RECORD OF ENDORSEMENT²⁰ OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):
 (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this SGP OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Ms. Charlene Mersai	National Environment Planner and GEF OFP	OFFICE OF ENVIRONMENTAL RESPONSE & COORDINATION	19 JUNE 2015

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies²¹ and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email
Adriana Dinu, UNDP-GEF Executive Coordinator		07/24/2015	Johan Robinson Regional Technical Advisor – EBD UNDP	+66-22802700	johan.robinson@undp.org

C. ADDITIONAL GEF PROJECT AGENCY CERTIFICATION (APPLICABLE ONLY TO NEWLY ACCREDITED GEF PROJECT AGENCIES)

For newly accredited GEF Project Agencies, please download and fill up the required **GEF Project Agency Certification of Ceiling Information Template** to be attached as an annex to the PIF.

Annex 1: Carbon Calculations:

15,000 hectares of HC VF identified and designated as conserved/set aside and avoided GHG emissions of 612,801 tCO₂eq over a 10 year period.

Of 21,459ha of volcanic soil forest on Babeldaob, 2,754ha (almost 13%) was degraded in 2007 according to The Nature Conservancy’s (2007) Biodiversity Planning for Palau’s Protected Areas Network Assessment. This is a conservative estimate, given that the compact road has been built since the time of this assessment. Given increasing pressures outlined in the PIF on forest resources on Babeldaob, it is very conservatively estimated that at least the average amount of degraded forest on Babeldaob will remain at 13% across the island without the project’s intervention under a business as usual scenario (given current trends of land clearing for development and degradation as a result of forest fires outlined in the PIF). Wildfires can occupy 2% of the island area of Babeldaob (36,500ha), so up to 730ha annually; up to 3.4% of the total volcanic forest area on the island. The project will establish 15,000ha of protected HC VF forests. It will also strengthen capacities to respond to fires. Establishment of HC VF will change regime to protection and this will halt forest degradation in these areas. As a result of the project, 15,000ha will be protected from degradation annually, so that the degraded portion of 1,950 ha (13%) will be allowed to regenerate to the point where it stores as much carbon as pristine forest, and the remaining 87% will remain pristine. The Ex-Ante Carbon-balance Toll (EX-ACT) Tier Standard Edition, developed by FAO was used for the calculations. The forest type selected for the calculations is Tropical Rain Forests. Based on natural regeneration of 1,950ha of degraded forest within these HC VFs (13% of the area) with the project’s intervention, estimate of sequestration is 612,801 tCO₂eq over a 10 year period.

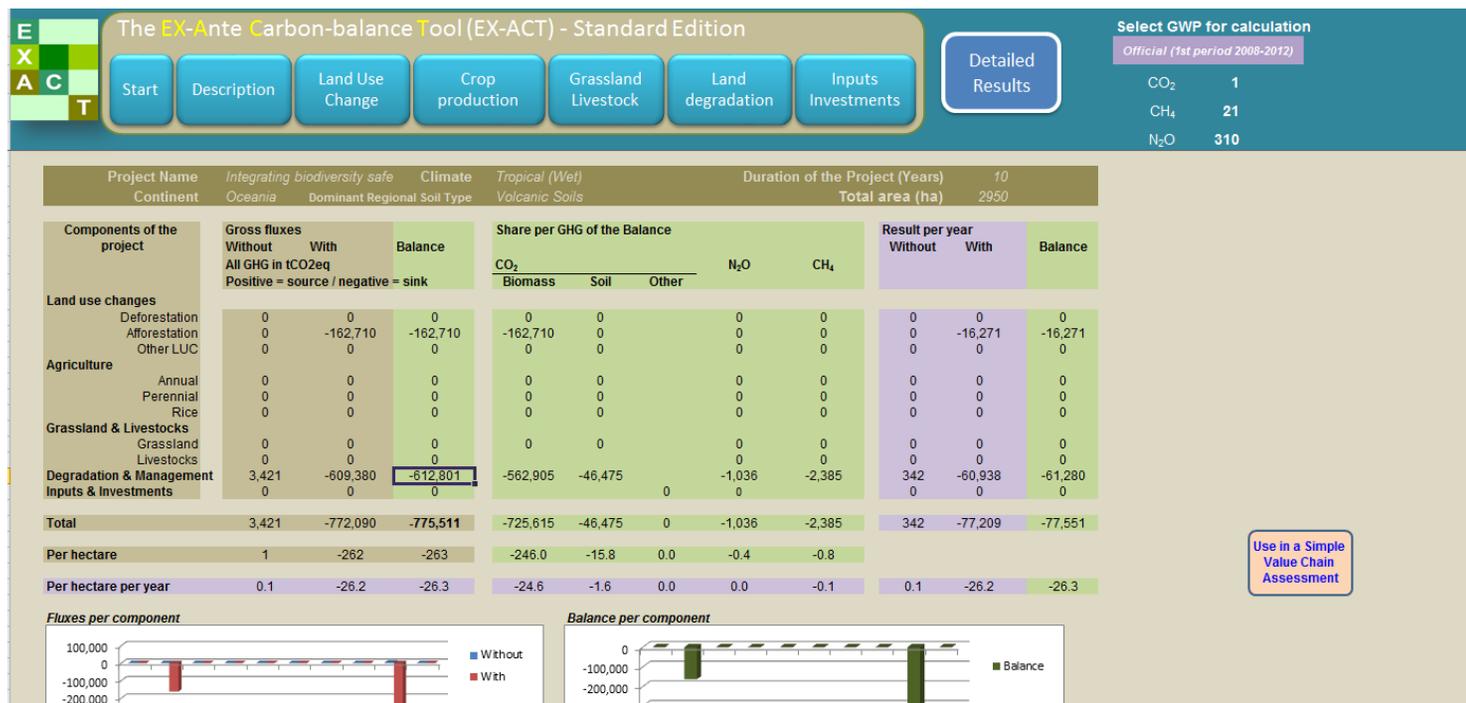
Reforestation of 1,000ha of degraded savannah grassland (along forest edges) to reduce risks from wildfires and IAS, results in sequestration of 162,710 tCO₂eq over a 10 year period.

775,511 tCO₂eq over a 10 year period.

See FAO EX-ACT Calculations below.

²⁰ For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

²¹ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF



Annex II: Information regarding Micronesian Megapode

Micronesian Megapode (*Megapodius laperouse*)²²

Red List Category: Endangered

Geographic Description: *Megapodius laperouse* occurs on Palau and the Northern Mariana Islands (to USA) and is extirpated from Guam (to USA).

Population: There is estimated to be hundreds of birds in Kayangel (J, Millet in litt. 2007), 497 birds in the rest of Palau (Engbring and Pratt 1985), and 1,440 – 1,975 birds in the Marianas (USFWS 1998). These estimates total 2,000 – 2,500 individuals roughly equating to 1,300 – 1,700 mature individuals. In 1991, the population [of Palau] was estimated at 497 birds, excluding Kayangel. In 2005, a repeat survey found stable numbers on Peleliu and Babeldaob, but evidence of declines in the Rock Islands and on Angaur (VanderWerf 2007). **Population Trend:** Decreasing

Habitat-Ecology: Most remaining populations in the Marianas inhabit areas of volcanic forest and coconut groves on volcanic islands, whereas those present on the limestone islands of Saipan, Tinian, and Aguiuan prefer limestone forest and secondary forest (USFWS 1998). In Palau, most birds inhabit limestone and beach strand forests, with smaller numbers present in upland volcanic forests (Engbring 1992, VanderWerf 2007).

Major Threats: Volcanic activity is an ongoing threat on other islands as well, and can bury vegetation and nesting areas (USFWS 1998). Birds were hunted, and eggs were collected in the past (USFWS 1998), but the current extent of these problems is unknown. In Palau, increased tourist use of beaches has resulted in disturbance to nest sites (Engbring 1992). Birds are infrequently hunted in Palau, but the eggs are still regularly collected illegally from nest mounds (Engbring 1992, Pratt and Etpison 2008). On all islands, predation on megapodes by introduced predators, e.g. rats *Rattus spp.*, and feral cats, dogs and pigs is a threat (USFWS 1998, Pratt and Etpison 2008). The accidental introduction of the brown tree snake *Boiga irregularis* from Guam to other islands in the Marianas and to Palau is a serious threat (USFWS 1998).

²² Citation from <http://www.iucnredlist.org/details/22678620/0>