



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: (CHOOSE PROJECT TYPE)

TYPE OF TRUST FUND:(CHOOSE FUND TYPE)

PART I: PROJECT IDENTIFICATION

Project Title:	Implementing a “Ridge to Reef” approach to Preserve Ecosystem Services, Sequester Carbon, Improve Climate Resilience and Sustain Livelihoods in Fiji		
Country(ies):	Fiji	GEF Project ID: ¹	5398
GEF Agency(ies):	UNDP (select) (select)	GEF Agency Project ID:	5216
Other Executing Partner(s):	Department of Environment	Submission Date:	April 5, 2013
		Resubmission Date:	April 15, 2013
GEF Focal Area (s):	Multi-Focal Area	Project Duration (Months)	48
Name of parent program (if applicable): For SFM/REDD+ <input type="checkbox"/>	Pacific Islands Ridge-to-Reef National Priorities - Integrated Water, Land, Forest & Coastal Management to Preserve Biodiversity, Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihood	Agency Fee (\$):	664,884

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK²:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-Financing (\$)
BD-1	GEF TF	2,860,000	9,120,708
BD-2	GEF TF	653,625	2,010,792
LD-1	GEF TF	175,000	2,017,720
LD-3	GEF TF	348,374	1,511,279
CC-5	GEF TF	1,775,161	5,430,000
IW-1	GEF TF	155,325	1,457,125
SFM-1	GEF TF	1,420,129	4,674,188
CCA-1	SCCF*	(2,752,294)	4,000,000
Total Project Cost		7,387,614	30,221,812

*SCCF funding will be submitted in late 2013.

B. INDICATIVE PROJECT FRAMEWORK

Project Objective: To preserve biodiversity, ecosystem services, sequester carbon, improve climate resilience and sustain livelihoods through a ridge-to-reef management of priority watersheds in the two main islands of Fiji

Project Component	Grant Type ³	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-Financing (\$)
1. Conservation of Terrestrial and Marine Biodiversity (BD Focal Area)	TA	1.1 Improved management effectiveness of existing and new protected areas	1.1.1 Expanded terrestrial and marine PA System: 1 new terrestrial protected area [1,844 ha] and 5 new marine protected areas [5,534 ha] delineated and formally established to conserve biodiversity and maintain ecosystem goods and services in a R2R context: <i>Terrestrial:</i> Tuva watershed (1,844 ha)	GEF TF	2,549,364	9,127,830

¹ Project ID number will be assigned by GEFSEC.

² Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.

³ TA includes capacity building, and research and development.

			<p><i>Marine:</i> Natadola seascape (173.4 ha) Vutia Qoliqoli seascape: (304 ha) Labasa Seascape (5,119 ha) Ba Seascape (88 ha) Vunivia Seascape (150 ha)</p> <p>1.1.2 Improved Management of PA System: 4 existing terrestrial protected areas [27,765 ha] and 4 existing marine protected areas [6,785 ha] strengthened through development and/or implementation of management plans following the Community Conserved Areas (CCA)/LMMA approach to conserve biodiversity and maintain ecosystem goods and services in a R2R context:</p> <p><i>Terrestrial:</i> Sovi watershed (20,000 ha) Natewa/Tunulua IBA (6,625 ha) Ba Watershed (1,106 ha) Vunivia Catchment: (34 ha)</p> <p><i>Coastal:</i> Tuva mangroves (1,000 ha) Waidina/Vutia Nasoata Island (304 ha) Ba Mangroves (5,222 ha) Vunivia Mangroves (259 ha)</p>			
		1.2 Improved financial sustainability for terrestrial and marine protected area systems	<p>1.2.1 Valuation of biodiversity and other ecosystem services completed in at least 2 sites (Sovi watershed and one seascape) as basis for sustainable conservation finance approaches (e.g. Outputs 1.2.2 and 1.2.3)</p> <p>1.2.2 User fee system developed and implemented in 1 MPAs by building on ongoing initiatives such as FLMMA (Fiji Locally Managed Marine Areas); potential for replication in other MPAs towards development of a national fee system for sustainable conservation finance assessed and implemented</p> <p>1.2.3 Assessment completed for potential for increasing the existing Trust Fund for Sovi Watershed; guidelines for fund management and utilization reviewed and recommendations formulated; potential for replication in other areas assessed</p>			
2. Conservation, Restoration and Enhancement of Carbon Stocks through Sustainable Forestry (CC Focal Area	INV	2.1 Carbon stocks restored and enhanced in priority catchments	2.1.1 Restoration and enhancement of carbon stocks in degraded forests in 6 priority catchments using native species initiated through demonstration plots in the following watersheds (with indicative target areas in the long-term for restoration): Tuva watershed (5,000 ha); Waidina watershed (20,00 ha); Ba catchment (15,000 ha);	GEF TF	2,309,000	8,083,350

and SFM / REDD +)		2.2 Sustainable forest management (SFM) achieved through innovative market-based schemes	<p>Labasa watershed (13,741ha); Natewa/Tunulua IBA (5,225ha); Vunivia Catchment (1,000 ha)</p> <p>2.2.1 Completed forest certification and verification of timber supply chains for plantation forests (pine and potentially mahogany) covering 15,000 hectares to reduce pressure on forest resources, building on ongoing efforts</p> <p>2.2.2 Forest policy and related legal and regulatory frameworks reviewed and appropriately reformulated with alignment to SFM/REDD+ methodologies.</p> <p>2.2.3 Existing carbon monitoring, reporting and verification (MRV) systems reviewed and adapted to forests in Fiji</p> <p>2.2.4 Capacity building for REDD+ for 50 staff in the Forestry and Environment Departments and about 60 community leader in subject areas relevant for each group (e.g., carbon inventory, surveys, MRV, risk management/mitigation, etc)</p>			
3. Integrated Natural Resources Management (LD; IW; BD)	TA	<p>3.1 Integrated catchment management plans integrating conservation of biodiversity, forests, land and water formulated and implemented in priority sites</p> <p>3.2 Strengthened governance for integrated natural resources (land, water, biodiversity, forests) management</p>	<p>3.1.1 Biophysical, demographic and socioeconomic assessments conducted in 6 priority watersheds (Tuva, Waidina/Rewa, Labasa, Ba, Vunivia and Natewa/Tunulua,) to inform INRM planning.</p> <p>3.1.2 Catchment-wide integrated management plans with emphasis on interconnectivities of land, water, coasts, forests, and biodiversity developed, refined or strengthened in at least 5 priority watersheds (Tuva, Waidina/Rewa, Labasa, Ba, and Natewa/Tunulua)</p> <p>3.1.3 Multi-stakeholder Catchment Management Committees (including community organizations) formed. strengthened to implement integrated catchment management plans in 6 priority catchments</p> <p>3.2.1 National sectoral policies strengthened with INRM (covering land, water, forests, biodiversity) in the following sectors: forestry, agriculture, lands, fisheries, i-Taukei, tourism, and health</p> <p>3.2.2 National and local government relevant agency staff trained for INRM through leadership and/or participation in project activities.</p> <p>3.2.3 Empowered communities as a result of participation in: 1) formulation of PA management plans and catchment</p>	GEF TF	1,680,000	8,986,124

			management plans; 2) alignment of community livelihoods with local priorities; 3) development of market-based instruments by the project, including ecosystem services.			
4. Knowledge Management (All Focal Areas)	TA	4.1 Improved data and information systems on biodiversity, forests and climate change, land and coastal and marine management and good practices	4.1.1 Information portal established for easily accessible data and information on biodiversity, forests, coasts, land and water management practices, including climate change 4.1.2 Knowledge products (brochures, flyers, videos) on all thematic/focal areas and best practices developed and disseminated through various print and broadcast media	GEF TF	275,000	1,250,000
Sub-Total					6,813,364	27,447,304
Project management cost ⁴					574,250	2,774,508
Total project costs					7,387,614	30,221,812

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

Sources of Cofinancing	Name of Cofinanciers (if known)	Type of Cofinancing	Amount (\$)
National Governments	Ministry of Local Government, Urban Development, Housing and Environment	Grant and In-kind	9,036,400
	Department of Forestry		2,288,301
	Department of Fisheries		308,000
	Department of Agriculture		6,046,320
	Ministry of Provincial Development and National Disaster Management		560,000
	Department of Climate Change		114,988
	Ministry of Strategic Planning, National Development and Statistics		1,120,000
	Ministry of Works, Transport and Public Utilities		4,462,675
	Ministry of iTaukei Affairs		195,208
GEF Agency	UNDP	Grant	140,000
		In-kind	4,000,000
NGO	WWF; USP-Institute of Applied Science; Birdlife; Wildlife Conservation Society	Grant and In-kind	1,949,920
Total			30,221,812

D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal area	Country Name/Global	Project	Agency Fee	Total
UNDP	GEFTF	Biodiversity	Fiji	3,513,625	316,226	3,829,851
UNDP	GEFTF	Land Degradation	Fiji	523,374	47,103	570,477
UNDP	GEFTF	Climate Change	Fiji	1,775,161	159,764	1,934,925
UNDP	GEFTF	International Waters	Global (Fiji)	155,325	13,980	169,305

⁴ Same as footnote #3.

UNDP	GEFTF	SFM/REDD+	Global (Fiji)	1,420,129	127,811	1,547,940
Total Grant Resources				7,387,614	664,884	8,052,498

*Application for SCCF will be made in late 2013 when replenishment is expected; Agency fee is for both project and PPG.

E. PROJECT PREPARATION GRANT (PPG)⁵

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

	Amount Requested (\$)	Agency Fee for PPG (\$) ⁶
• No PPG required.	--0--	--0--
• (upto) \$50k for projects up to & including \$1 million	_____	_____
• (upto) \$100k for projects up to & including \$3 million	_____	_____
• (upto) \$150k for projects up to & including \$6 million	_____	_____
• (upto) \$200k for projects up to & including \$10 million	_____250,000_____	_____22,500_____
• (upto) \$300k for projects up to & including \$10 million		

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

TRUST FUND	GEF AGENCY	FOCAL AREA	Country Name/Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b
GEF TF	UNDP	Biodiversity	Fiji	119,403	10,746	130,149
GEF TF	UNDP	Land Degradation	Fiji	17,910	1,612	19,522
GEF TF	UNDP	Climate Change	Fiji	59,701	5,373	65,074
GEF TF	UNDP	International Waters	Global (Fiji)	5,225	470	5,695
GEF TF	UNDP	MFA (SFM)	Global (Fiji)	47,761	4,299	52,060
Total PPG Amount				250,000	22,500	272,500

MFA: Multi-focal area projects; MTF: Multi-Trust Fund projects.

PART II: PROJECT JUSTIFICATION⁷

A. PROJECT OVERVIEW:

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

A.1.1) The global environmental problems, root causes and barriers

Fiji's ecosystem services are provided by the diverse natural resources of the country, including from terrestrial and coastal and marine ecosystems. Fiji, like many of the Pacific Island Countries (PICs), represents microcosms of some of the most significant development and environmental challenges the world faces. Fiji comprises more than 320 islands, about one-third of which are inhabited, comprising a total land area of 18,333 km² and a marine Exclusive Economic Zone (EEZ) of 1.6million km². A significant portion of Fiji's economy is dependent on exploitation of Fiji's natural resource base. With

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

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

⁷ Part II should not be longer than 5 pages.

limited land area, Fiji experiences intense competing pressures on land resources for agriculture, tourism, transport, water and other needs. Available water resources are quite limited, often only to thin layers of groundwater lying above more saline waters, and water storage capacities and infrastructure are insufficient, and poorly treated wastewater releases or overuse of fertilizer in upstream communities/farms can pollute coastal waters, create disease outbreaks, and contaminate sensitive groundwater supplies. Forested lands can come under intense pressure for fuel wood, pulp for export, conversion to agricultural uses and for tourism infrastructure.

Fiji is an important center of globally significant marine and terrestrial biodiversity and this biodiversity is often threatened by pollution, invasive species, overexploitation, habitat loss, and climate change. Fiji faces a difficult future with the current 'business as usual' as the above global environmental problems manifest themselves on this small island country. Lack of strong legislation, regulations and guidelines have led to overexploitation of many of Fiji's natural resources. Weak enforcement and unclear regulations mean that even protected areas are still at risk of degradation. Further, the economic needs of landowners leave them with little choice but to harvest their resources for immediate returns. This could be compounded by government encouragement of entrepreneurship, especially in logging and mining, to spur national economic growth.

The anthropogenic threats to Fiji's land, water, coastal, forests and biodiversity are described below.

Habitat Destruction/Fragmentation: Forest ecosystems, which are primarily found in high elevations of Fiji's bigger islands and where terrestrial PAs are located, are threatened by fragmentation and destruction of habitat such as deforestation. The most important ongoing threat is encroachment from expanding agriculture particularly for commercial farming and human settlements, particularly on native owned forested lands. For mangrove ecosystems, development activities such as coastal reclamation and sand dredging have resulted in habitat destruction along coastal areas.

Pollution from Unsustainable Economic Activities: Inappropriate land use has resulted in land degradation associated with agricultural intensification, inappropriate farming practices such as intensive cultivation on hilly slopes greater than 30°. In the marine environment, the most significant threat to coral reef ecosystems comes from upstream sources of pollution especially sedimentation from erosion upstream due to unsustainable agricultural practices and clearing of land because of various competing land uses. Sediments have adversely affected coral reef ecosystems, thereby upsetting the food chain and negatively impacting on the marine fauna. Sewage outflows, and nutrient overload due to fertilizers and the use of pesticides pollute the water bodies from terrestrial to marine, and also contribute to destroying the ecological integrity of the water and land ecosystems. Excessive use of fertilizers and pesticide in farms is due to attempts by farmers to make maximum use of the land due to restrictions on lease periods from the Agriculture Landlords and Tenant Act (ALTA). Burning for the purposes of clearing land for farming, getting rid of wastes or for ease of harvesting of sugar canes have also threatened forests and grass lands, and numerous fires have spread to forests and grassland from this unsustainable practice of burning, especially during the dry season. Sedimentation resulting from unsustainable practices upstream has also resulted in shallow rivers downstream and frequent flooding following heavy rains and severe weather conditions. Mining, shipyards and slipways, moorings, tourist developments, sugar mills, timber mills, cement factories, municipal waste disposal sites, sewage, agricultural pesticides and herbicides, changing land use and various industries are also causing pollution of ecosystems.

Overexploitation of Biological Resources: Much of Fiji's biodiversity is endemic - more than 50% of Fiji's plants and birds, all 24 palms, 72 out of the 76 species of *Psychotria*, both frogs and over 90% of some insect groups such as cicadas and marine insects. The uniqueness of its biodiversity distinguishes Fiji from all other countries- it is a living treasure which forms a natural heritage which Fiji can be justly proud of. But it also places a heavy responsibility for its continued existence – it cannot be conserved in nature anywhere else in the world. However, a continued increase in population has resulted in significant pressure on living biological resources. Similarly, over exploitation of fish and other species (such as turtles, giant clams and coconut crabs) are threatening their survival. Many species in heavily populated areas are grossly overfished and the stock severely depleted. Destructive fishing practices are a serious problem in certain parts of Fiji. Dynamiting is a practice that destroys and kills marine organisms indiscriminately. Traditional fish poisons such as *duva* plant are commonly used. Sometimes modern pesticides and bleach are also used. The use of inappropriate fishing gear such as nets of illegal mesh size has resulted in the loss of juvenile fishery.

Drivers of Land-Use and Deforestation: The major drivers of land use change are Agriculture, Quarrying /Mining, Tourism and Infrastructure development as a consequence of increased population and economic development. Agriculture is carried out at a larger scale in the upper reaches of the Labasa, Vunivua and Ba catchments while tourism is taking place at Tunulua and downstream at Tuva, with infrastructure development taking place at the coast for Labasa, Ba and Waidina. For the

Agriculture sector, mono-cropping for export has resulted in deforestation through the clearing of forest lands. On the other hand, urban expansion and infrastructure development results in encroachment into fertile arable lands as a result of increased population due to inadequate management plans. The Tourism industry is also a major driver of land use change, however the industry is becoming increasingly aware of the interconnectedness of the ecosystems and the industry is increasing participation in conservation initiatives.

Climate Change Impacts: Fiji is being increasingly subjected to erratic weather patterns as a consequence of climate change. Increasing rainfall results in landslides upstream that requiring relocation of riverside villages such as in the Labasa Catchment. Flooding in the plains and delta areas downstream is a result of rivers being shallower from increased sedimentation due to erosion upstream, a consequence of deforestation and unsustainable farming practices. Flooding is exacerbated by rising sea levels worsened by the loss of protective natural barriers. Flooding brings associated water borne diseases and also damages housing and infrastructure, resulting in economic losses from the community up to the national government level. Sediment plumes in rivers from flooding damage coral reefs in the adjacent waters of the corresponding marine environment. Apart from affecting ecotourism, the ecological systems are destroyed and biodiversity therein adversely affected. Rising sea levels have also resulted in salt water intrusion into taro and cassava gardens, thus adversely affecting harvesting of root crops. On the other hand the drier side of the islands experience periods of drought due to decreased rainfall.

On the positive side, there is a clear signal from the government to the community to better manage their natural resources in a more holistic approach. This is aligned with strong connectivity between watershed habitats in Fiji. Demonstration strategies have shown that considering connections between the land and the sea such as Ridge to Reef (R2R) with associated Marine Ecosystem Based Management (EBM) and Integrated Coastal Management (ICM) are far more effective as holistic integrated approach towards effective landscape and seascape environmental management. Currently there are 48 terrestrial protected areas covering 488 km² or 2.7% of the nation's land area. As of 2009, Fiji had 249 sites as Marine Protected Areas under the work of Fiji Locally Managed Marine Areas (FLMMA).

Additionally, Government of Fiji committed a national target of 30% marine protection by the year 2020 at the International meeting of SIDS to honor targets set at the CBD COP comprising the Aichi Targets. Yet, other varieties of land-sea connections important to ecosystems and resource management include: 1) land-sea processes (e.g. oceanic foraging by seabirds nesting in coastal forests); 2) cross-system threats (e.g. pollution and sedimentation from watersheds), and; 3) socio-economic interactions (e.g. the impact of land-based threats on marine-based aspect of tourism). A valuation of Fiji's ecosystems had been carried out for the FBSAP and the 4 major ecosystems that form the basic components of Fiji's natural asset base and can be economically evaluated are: a) open seas; 2) coral reefs, lagoons, and beaches; 3) mangrove forests and estuaries, and; 4) tropical moist forests. In 1994, the total value of Fiji's ecosystem services was estimated to be worth F\$973million, or approximately 42% of Fiji's GDP.

Land Tenure in Fiji. This information is included to provide context for the project. Land in the Fiji Islands is managed through three complementary systems- Native Land, Freehold Land and Crown Land. Freehold land can be bought and sold. Native Land and Crown Land cannot be bought and sold but is available only on a leasehold basis. Leasehold land can be developed as much of it is available on a long-term lease basis (often 99 years). Each type of land tenure has different implications for the development and planning processes. Approximately 83% of land in Fiji is Native Land. All Native Land belongs to village groups or 'land-owning units'. Typically a portion of each land area is set aside for the site of the village, and the rest is Native reserve. Land within native reserve may be made available for use and development by others through short- or long-term lease. In order for development to take place on Native Land, the developer must obtain a lease. Leases of Native Land are available through the Native Land Trust Board (NLTB), a statutory authority which administers all such lands on behalf of the Fijian owners. All applications for leases of Native Land are made to the NLTB. Any agreement or dealing concerning Native Land made with any other person or group has no legal standing. Once an NLTB lease has been issued, the land must go through a process of de-reservation before development can take place. Any application for development permission, subdivision, or rezoning of Native Land must be accompanied by a copy of the lease document(s) as evidence of the applicant's legal right to the land, and the NLTB's consent to the land's development. Development leases are issued for particular types of development (residential, commercial, tourism, etc) and if a lessee wishes to carry out a different type of development, the agreement of the lessor must be obtained. For some catchments that have pine plantations as in the case for Tuva, these are leased to the Fiji Pine Limited for a specific number of years. The government had initially leased these areas before the Fiji Pine Limited was privatized, though maintained for forest plantation purposes.

Approximately 7% of land in Fiji is Crown Land, administered by the Department of Lands. In addition, all foreshore lands below mean high water mark, the soil under Fiji waters and the beds of navigable rivers and streams are Crown Land. Like Native Land, Crown Land is not sold outright but some is available on a leasehold basis. Crown leases are granted and managed by the Director of Lands. Ten percent of land in Fiji is freehold land registered under the Torrens system of land registration, by which titles to land are guaranteed. Freehold land can be purchased, transferred, or leased, subject to the conditions of the *Land Sales Act*, which among other things restricts the quantity of land which can be purchased by individuals who are not resident in Fiji, and by companies not wholly owned by Fiji citizens.

A.1.2 the baseline scenario and any associated baseline projects

Government projects and programs funded through budgetary allocations constitute the major baseline for this project. Several institutions oversee environmental management activities in Fiji, including the Departments of Environment, Agriculture, Forestry, Fisheries and the Ministry of Foreign Affairs. The Department of Environment is responsible for fulfilling Fiji's obligations related to regional and multilateral environmental agreements, environmental protection legislation, environmental awareness, education and dissemination, and coastal zone management – and for coordinating these issues across Ministries. Through donor funding, the Department of Environment has implemented various environment programmes throughout Fiji related to biodiversity conservation, sustainable biological resource use, climate change, waste and pollution, development control and other programmes related to Fiji's obligations under regional and multilateral agreements. Within the Ministry of Agriculture, the Land Use Division plays a key role in agricultural land use and planning while drainage is the responsibility of the Drainage Board. The Ministry of Works, manages physical infrastructure development, including the national road network and telecommunications, and National Water and Sewage. Infrastructure development in the Department of Local Government includes the relocation of bus stand and market which are currently sitting and draining into the nearby Rewa River. Part of the relocation also includes ensuring civil works related to proper drainage and sewerage. For Climate Change, the Department of Meteorological Services is currently upgrading the National Climate Monitoring Telemetric System, replacing automatic weather and climate stations and purchasing hydrological and flood monitoring equipment. Many environmental NGOs, including WWF, IUCN, WCS, CI, Birdlife/Mareketi Viti, and others, also play a vital role in implementing various environmental projects/programme upon which this proposed project will build on.

Outside of protected areas, the Government of Fiji is carrying out efforts towards re-vegetation of forested areas through various conservation community-based initiatives with a lot of support from the Forestry and Agriculture departments. Nurseries set up in various villages and communities are for the purpose of seedlings production for reforestation and afforestation. Reforestation includes restocking of logged indigenous hardwoods forest with hardwood tree species (exotic and indigenous species) while afforestation involves the establishment of forest plantations in land areas which previously carried no tree cover such as grasslands. It is emphasized, however that this project will only support the use of native species for eligible activities to restore carbon in degraded forests. There are also ongoing initiatives for planting of pineapples on steeply sloping lands to reduce soil erosion and sediments deposits into the receiving waters, while at the same time promoting sustainable livelihoods.

The use of Vertiver Grass and Pineapple as soil conservation technologies is widely practiced in tropical countries including Fiji. When planted in contours along sloping land these plants form dense networks of hedges. This reduces the rates of run off as well as increase rates of infiltration, thereby preserving water into soil. In addition, foliage minimizes exposure to wind and impacts of rain fall. In terms of soil fertility, these plants prevent loss of nutrients from soil surface. The growing of pineapple is an alternative source of income, hence its popularity in soil and water conservation initiatives. Vertiver grass is quick growing, adapting to a range of soil conditions and has a dense root network extending up to two meters below the surface.

Other baseline initiatives include National Biodiversity Planning to support the implementation of the CBD 2011 – 2020 Strategic Plan in Fiji. This work builds on the current biodiversity planning and reporting in Fiji and aims to integrate Fiji's obligations under the CBD into its national development and sectoral planning frameworks through a renewed and participative 'biodiversity planning' and strategizing process. This is complimented by several climate change adaptation projects aimed at reducing the island communities vulnerability, including food security. The Department of Forestry also carry out biodiversity assessments and surveys to compile and update forest and associated freshwater flora and fauna, forest

mapping (vegetation types, forest cover and volume) and ecosystem rehabilitation. Sustainable land/forest management works include Reduced Impact Logging (RIL), silviculture prescriptions, selective low impact logging and community-based agroforestry farms. Lastly, the Forest and Protected Areas Management regional project is *enhancing* the livelihoods of island communities by strengthening biodiversity conservation and reducing forest and land degradation in Fiji, Samoa, Vanuatu and Niue.

These baseline activities all complement the Ridge to Reef approach in Fiji by addressing specific aspects along the continuum, including capacity development, community involvement, and protected area establishment and management. Yet, despite these initiatives, the existing PAs remain under-funded and only minimally managed for the foreseeable future especially in the native owned lands where landowners are eager to harvest forest products for livelihoods. Some of these forested areas are also coming under threat to mining activities, particularly in the Sovi Basin (part of the Waidina Catchment) which may be adversely affected once the copper mining license is granted to the mining company currently carrying out exploration in the adjacent areas.

As a result, the baseline for this proposed project can be best characterized by the lack of proper integrated environmental management with coordinated efforts across all the key stakeholders that comprise both terrestrial and coastal and marine interests. As a result, lack of environmental management in key sectors may be jeopardizing successes from other efforts up and down stream, including terrestrial and marine protected areas. Utilizing an integrated true R2R approach, the wealth of natural resources and associated ecosystem services available to Fiji will not only improve the health of the island environments, but will also improve the national economy, local livelihoods, and generate global environmental benefits.

The project proposes to work primarily in five priority watersheds of catchments although there is limited work in other catchments. Each of the priority sites are described below.

Watershed / Catchment	Brief Description
Labasa Water Catchment	The Labasa catchment covers 21,323 ha and is located in the Macuata province. Almost 94% of the catchment is native land and 6% freehold. About 25% of land is good land suitable for agriculture whilst the rest is made up of sloping and steep land. Generally the mid catchment is heavily under agricultural activities like sugarcane, vegetables and grazing while forestry populated the upper catchment. Pine logging activities is currently undertaken in the Korotari area and indigenous tree logging in Navakuru areas. The main causes of land degradation include over-cultivation of cropland up to the riverbank and deforestation. Threats include deforestation, loss of vegetation cover and quarrying. In addition, there is high commercial agriculture in the watershed (sugarcane and vegetable farming). Previously logged pine plantations are abandoned. As a result of non- reforestation, widening gullies accelerated erosion. Overflow of the Labasa river is frequent. Damages to Labasa town, agricultural and other sectors as well as rehabilitation works often estimated in the millions of dollars. There are existing community based initiatives aimed at conservation and sustainably managing coral reefs off the coast of Macuatu province. While these efforts have been strengthened by awareness-raising, the development of community plans and training, there is a strong need to reduce land-based sources of pollution through the management of water catchment activities.
Tuva Catchment	The Tuva catchment covers 26,200 hectares and is located in the Nadroga Navosa Province in the Western Division of Fiji. Total land area is approximately 26,200 hectares. Almost 91% of the catchment is native land and 6% is freehold. Mangroves cover almost 1,000 ha. There has been rapid expansion of commercial pine logging which appears to result in substantial land degradation in the lower catchment. Other threats include lack of reforestation, gravel extraction, indiscriminate burning and commercial farming up to river banks (no buffer). Villages located along the Tuva River are continuously being devastated by flooding. Nine villages and six settlements are situated in the catchment. Villagers mainly, women are finding it increasingly difficult to fetch decent catches of prawns, eels and shell fish in creeks which are becoming filled with sediments. This sedimentation is also impacting on coral reefs. Flooding frequency has increased in the water catchment including the disastrous 2012 floods whereby a state of emergency was declared in the western division. Through a GEF Funded Sustainable Land Management project, the Department of Agriculture section conducted a baseline biophysical data survey to assess the present land use, soils, land use capability, tenure system in the catchment and evaluate indicators of land degradation in the catchment. This initiative could provide valuable information for a R2R approach.
Waidina Catchment	The Waidina catchment is a sub –catchment of the Rewa River Fiji’s largest river system. This catchment is adjacent to the Sovi basin, one of Fiji’s most significant protected areas. The endemic Fijian burrowing snake

	(VU) is known historically from Sovi and several other endemic reptiles occur including green tree skink and Fijian copper-headed skink. The Fijian tree frog (NT) also occurs. Recent PABITRA surveys suggest that the basin supports about 680 species of vascular plants, one third of Fiji's total. This includes large numbers of <i>Schefflera eothyrica</i> (DD) in a very rare lowland rainforest formation on plains around creeks dominated by <i>Verbenaceae</i> trees. Threats to the Waidina catchment include deforestation and semi subsistence farming along steep slopes and sloping land. Implications also include pollution of the Waidina river, course of water supply and protein source for communities which are situated on the banks of the river. The entire landform is covered with undisturbed tropical lowland forest. The Sovi Basin is the largest, most diverse and most scenically outstanding of Fiji's natural forests. If it were to be protected it would be the "jewel in the crown" of Fiji's protected areas system, functioning as the main storehouse of land-based biodiversity
Natewa / Tunaloa Catchment	The catchment is a significant biodiversity site in Fiji (located on northern island Vanua Levu) as it is an Important Bird Area, home to the bird subspecies such as the <i>kleinschmidtii</i> of the endemic Silktail <i>Lamprolia victoriae</i> (near threatened), Shy Ground-dove <i>Gallicolumba stairi</i> and Black-faced Shrikebill <i>Clytorhynchus nigrogularis</i> (both vulnerable), and many other Fijian endemics. This IBA contains untouched old growth forest with several commercially important species. There is pressure to implement commercial logging operations. In 2005, a non- governmental organization assisted resource-owning communities to develop a community managed protected area plan.
Vunivia Catchment	Vunivia is a sub catchment of the Dogotuki catchment in Northern Vanua Levu. The catchment is covered in indigenous forests containing several important bird species, hence its declaration by the POWPA as an important bird area. However, there is a serious environmental threat in logging. The catchment contains a number of commercially important bird species and there logging companies have declared their intention of logging the area.

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

To address the baseline problems, the long-term solution is to implement a R2R approach in priority watersheds or catchments that combines a functional, representative and sustainable national system of coastal and MPAs integrated with the adoption of appropriate SLM practices in adjoining upstream watersheds as well as terrestrial PAs. This will effectively reduce the degradation of forests and other terrestrial landscapes and enhance protection for marine and coastal biodiversity and habitats.

The R2R overarching management approach is a comprehensive; it aims to cover all activities within a 'catchment' or 'watershed' and out to the sea to ensure natural resource sustainability and biodiversity; it is often undertaken in the context of precautionary principle. It is also referred to as Hilltops to Ocean (H2O), White Water to Blue Water, Integrated Catchment and Coastal Management (ICCM), Integrated River Basin Management (IRBM) and several other terms. While the terms are relatively new, the concepts of holistic management have been practiced throughout islands Pacific for hundreds to thousands of years. The R2R approach will also include Ecosystem Based Management (EBM) which has been developed to recognize that the nature and functioning of whole ecosystems should be managed together, rather than focusing on one aspect/sector e.g. a focus on forestry, or agriculture, or fisheries. The approach is fully described in the Program Framework Document under which this proposal is being submitted.

The R2R approach is expected to achieve sustainable management of terrestrial, coastal and marine resources by reducing or eliminating damaging activities and promoting rehabilitating and sustaining activities by resource users who live in or visit the catchment area. This is the basis for this proposed project and the wider program: the integrated management of complete catchment areas or the whole island for smaller mountainous and coral islands. These sites are intended as best practice demonstrations for the rest of the country. The R2R concept encapsulates both Integrated Coastal Management (ICM) and Integrated Water Resources Management (IWRM) to cover all activities within the selected area and conserve biodiversity. In this program, both ICM and IWRM will be applied towards reducing, and where possible eliminating, the flow of sediments, excess nutrients, pesticides, including persistent organic pollutants (POPs), heavy metals and solid wastes being delivered from the land through streams and into the ocean. The following project components proceed from the R2R concept.

The proposed alternative GEF intervention will consist of four components.

Component 1: Conservation of Terrestrial and Marine Biodiversity (GEF: \$2,651,376): This component is designed to support the implementation of key elements of Fiji's Biodiversity Strategy Action Plan (2003) to identify areas of high biodiversity and sustainable productive areas such as Marine Protected Areas (MPA) which are being recommended for protection.

At the site level, the project will work in two existing terrestrial protected areas - Sovi Basin in Waidina Catchment and Natewa/Tunuloa - and two new terrestrial protected areas - Vunivia Catchment and Vatudamu in Labasa Catchment. The project will also work in two existing marine protected areas - Vunivia and Labasa Catchments and five new marine protected areas - Vutia (downstream from Waidina catchment), Vunivia, Natadola (downstream from Tuva Catchment), Labasa, and Ba. The marine protected area system in Fiji is more advanced than the terrestrial system mainly due to the work of FLMMA and other NGOs. Terrestrial catchment work has recently improved with the UNDP/GEF IWRM project that is almost coming to an end and the official formation of the first ever Catchment Management Committee (Nadi) being formed. (The project will build on this in Component 3.)

Component 1 will have two expected outcomes. Outcome 1.1 will aim at improving management effectiveness of existing and new protected areas. The expected results of Outcome 1.1 include: a) expansion of terrestrial and marine PA system with the establishment of up to 6 new protected areas (one terrestrial and five marine); b) improved management of PA system utilizing the CCA/LMMA approach in the R2R context recognizing interconnectivities between the PA and other ecosystems. Outcome 1.2 will aim at improving financial sustainability for terrestrial and marine protected area systems. The expected results of Outcome 1.2 include: a) biodiversity and ecosystem valuations to establish better policies and potential sustainable financing; b) a national user fee system developed and implemented in Fijian MPAs, and; c) the Sovi Watershed Trust Fund further developed and replicated in other watersheds.

These sites have been selected with close consultations with various government departments and NGOs that are currently working closely with communities and fully aware of community priorities and the ecosystems adjacent to the sites they are currently implementing projects in. Through community work some of these sites, albeit relatively small in size, were identified as valuable corridors and vulnerable to current environmental changes, thus warranting environmental management and conservation work. The Protected Area Committee in Fiji has also prioritized these sites in the selected priority watersheds as important for biodiversity conservation. Vunivia seascape where conservation work has not commenced may only be 150ha, but it is a valuable link and part of the marine ecosystems that are adjacent to the Great Sea Reef (GSR) in Fiji's far north. GSR is the world's third largest barrier reef and home to a staggering array of life, from tiny nudibranchs to vast schools of fish to turtles, dolphins and manta rays. Of equal importance is the improved management of 34 ha of Vunivia terrestrial ecosystem since it drains into the Vunivia seascape. For the 88ha in Ba this includes the intertidal mangrove ecosystems where there are three distinct mangrove communities in the highlighted back in 1978 with an estimated mangrove cover of 52.9 square kilometres, and since then a 2008 estimate from overlay of aerial photographs indicated a 10.6 per cent mangrove loss. This work of declaring PA will slow down the rate of loss valuable mangrove ecosystems.

Environment management and conservation-focused non-government organizations (NGOs) most of which were involved in the stakeholders consultations for and in the subsequent implementation of this proposed project, currently partners with villages, government departments and other stakeholders, in a co-management arrangement for environmental conservation of native-owned lands and customary fishing grounds, or *qoliqoli*, in the country. Almost every village has an Environment committee (please refer to diagram below) while the *qoliqoli* committee exists at district level and reports directly to the District Council.

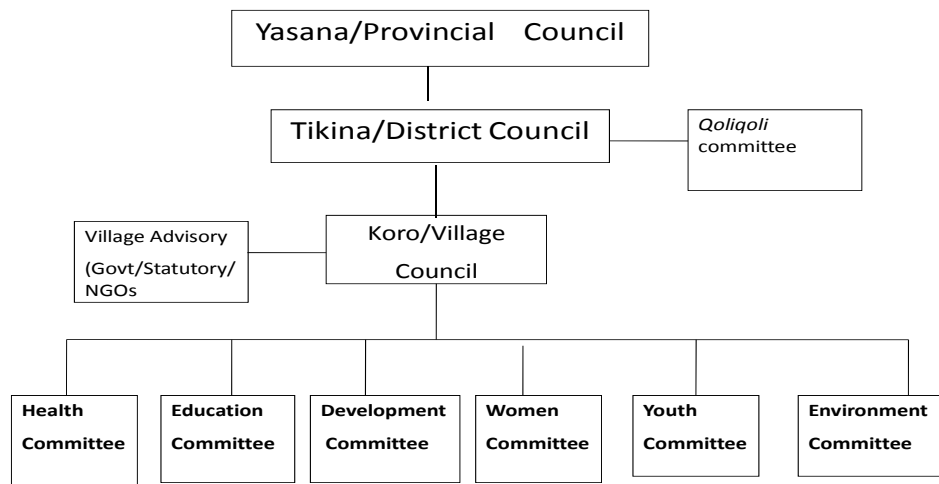


Figure 1: Environment and *Qoliqoli* Committee in the traditional management system.

These committees have management plans developed in consultation with community members and other stakeholders which outlining management structures including establishing, monitoring, enforcement at the conservation site.

Component 2: Conservation, Restoration and Enhancement of Carbon Stocks through Sustainable Forestry (GEF: \$2,414,312): This component of the project will focus on reforestation of grasslands and rehabilitation of degraded forest lands. Additionally, this component will explore implementation innovative REDD+ methodologies as well as payment for environmental services schemes, including certifications. This will be accompanied by utilizing mitigation measures focused on maintaining forest carbon stocks and increasing sequestration of carbon through forest conservation, reforestation, afforestation and enrichment planting will also contribute to biodiversity conservation, improved watershed management and improved food security. Within the watershed, field-level interventions will focus on six areas (Tuva catchment, Sovi basin in the Waidina watershed, Ba catchment, Vunivia catchment, Vatudamu in Labasa Catchment, and the Natewa/Tunuloa IBA). These communities were selected based on: the current existence of relatively large areas of forests and proximity to and impact on degradation of habitat and ecosystem services downstream in protected marine areas. For instance, the Sovi basin is within the Waidina watershed which affects the protection of the Muanaicake-Nasoata mangrove protected area downstream. Protection of the Vatudamu forests also affects the health of the one of Fiji's priority area of mangrove downstream: Labasa delta river mouth. Reforestation of the open grasslands using pine in the Tuva catchment will improve the ecological integrity of the coral reefs downstream in the Natadola bay which has a five star hotel, thereby promoting eco-tourism activities. At all these sites, seedlings produced by local nurseries will be planted and local community members and DFNP staff will be trained to maintain and monitor the re-vegetation processes; in some places, activities may also include the removal of invasive alien species (e.g. African tulip) that have colonized degraded areas. The conservation of forests within the Vunivia catchment and Namena coupled with the re-forestation of grasslands within the Labasa catchment will lessen adverse impact on the valuable Great Sea Reef downstream in the corresponding marine seascape.

Component 2 will have two expected outcomes. Outcome 2.1 will focus on restoring and enhancing carbon stocks in the priority watersheds identified above. The expected results of Outcome 2.1 will cover restoration of degraded forests using native species in at least five watersheds through demonstration plots. The expected results of Outcome 2.2 include: a) forest certification and verification of timber supply chains in plantation forests; b) review and reformulation of relevant policies; c) review of MRV systems and subsequent adaptation in Fiji; and d) capacity building in various areas of REDD+.

Based on preliminary computations, the total carbon benefit (emissions avoided + carbon sequestered) of the project is 1,022,747 tCO₂/y (refer to Annex A for details).

With respect to the policy outputs in this component, the project will build on ongoing policy efforts geared towards deterring forest degradation, which include the following:

- REDD+ Readiness and REDD Policy with draft Strategic plan
- Policy area on establishment of comprehensive system of reserves and conservation areas, determining sufficient area as Permanent Forest Estate for sustainable forest management
- Revision and Enforcement of the Fiji Forest Harvesting Code of Practice to enhance SFM
- Law on the conservation of mangrove ecosystems towards sustainable management

Currently there are 26 different forestry-related legislations mandated under different government sectors and implementation enforcement. An ongoing GEF 4 project implemented by FAO is reviewing to come up with Overarching Legislation which will also encompass other aspects that are relevant to the objectives of this proposed project, which will then focus on the gaps such as the formulation of **regulations** proceeding from these legislations/policies such as those on SFM/REDD+, carbon trading, PES, among others.

Component 3: Integrated Natural Resources Management (GEFTF: \$1,749,615). This component will focus on the development of integrated natural management plans that implement the R2R approach, accounting for ecosystem connectivity, involvement of key stakeholders up and down stream, as well as accounting for conservation of biodiversity, forests, land and water. The project will focus on the priority watersheds of Tuva, Waidina, Labasa, Ba, and Natewa/Tunuloa. Success of this component will rely on building the necessary capacity with the various stakeholder groups, including local government and community organizations.

Component 3 will have two⁸ expected outcomes. Outcome 3.1 will focus on producing catchment management plans that integrate the needs of biodiversity, forests, land and water conservation in at least five priority sites. The expected results of Outcome 3.1 include: a) conducting biophysical, demographic and socioeconomic assessments in at least five priority watersheds, and; b) developing, refining, or strengthening catchment-wide integrated management plans in at least five priority watersheds; c) creation and capacity building of multi-stakeholder Catchment Management Committees for all priority catchments.

Outcome 3.2 will focus on strengthening the governance for integrated natural resources (land, water, biodiversity, forests) management. The expected results for Outcome 3.2 include: a) strengthening national sectoral policies in forestry, agriculture, lands, fisheries, iTaukei, tourism, health by including provisions towards INRM; b) national and local government agencies adequately prepared for integrated natural resources management through trainings and leadership and/or participation in project activities; target agencies include national and local agencies, including local governments; and c) participation of communities adopted in all project activities leading to empowerment:

The Fiji's Department of Forestry together with the private hardwood corporations has been developing its own certification standards since 2005. The work involved in setting the standards is very heavily dependent on the funding availability and due to the lack of funding this work was discontinued after 2005 but the Department of Forestry has now only resumed this work in the past 2 years. More funding however is needed to provide a national standard FSC certification for all sustainably logged forests bound for international markets from Fiji. As the markets are moving towards only sourcing sustainably logged forests with certification, there is strong support for certification from government and the private sector. The project intends to accelerate certification work towards developing national standards as a starting point and moving towards FSC and supporting the FSC-certification of plantation forests.

Capacity building will take place with government both at the national and local level, such as technical capacity for valuation of biodiversity, forest certification and as outlined in 3.2.2 training for Integrated Natural Resource Management (INRM) through leadership and participation in project activities. Sustainability is ensured when training is focused on civil servants on fixed term appointment rather than temporary officers. Community members will also benefit from involvement with capacity built for technical and management skills such as reforestation activities and development of catchment wide integrated management plans. Actions to ensure sustainability include community involvement and consultation from the early stages of the project to help increase the sense of ownership.

⁸ A third outcome with corresponding activities on CC adaptation will be added in the process of applying for SCCF support.

Community participatory processes is an essential strategy in promoting sustainable land management as it empowers resources and tenants to participate in a constructive manner. Decision making concerning land management is effective when stakeholders are provided with baseline data enabling them to assess local circumstances before making informed decisions. At preliminary stages, surveys and consultation are conducted. Biophysical surveys are carried out in water catchments to assess land use, soils, land use capability, tenure system in the catchment and assess indicators of land degradation in the catchment. In addition, demographic and socio economic surveys provide critical information on livelihoods of populations residing within catchments and their activities related to land use. Upon completion of surveys and compilation of reports, the information is provided back to communities through workshops after they develop participatory land use plans. The reports are also made available to other national government departments and non- governmental organizations facilitating conservation and development activities within the catchments. Commercial farmers requesting for loans from commercial banks are required to obtain copies of biophysical surveys (as it demonstrates the potential for land use) as part of their supporting documentation in their submissions.

The project will adopt government-prescribed methodologies such as the Department of Agriculture Land Use Capability Systems in 1997. Over the years this has been refined. Under the Land Conservation Act the Department of Agriculture is empowered to provide technical advice pertaining to land management. In 1999, the Land Use Section (research Division) took the initiative to establish a participatory land use planning approach at the community level working with resource owners in Bemana, Nadroga. Since then it has extended its collaboration with other stakeholders implementing many similar projects. Partnerships have included the Native Land Trust Board, Ministry of Itaukei, Ministry of Fisheries and Forests, civil societies such as the WWF and the Foundation of the People of the South Pacific.

An important output of the project is community empowerment. For instance, as resource owners, the participation of communities in the formulation and implementation of market-based instruments such as PES and the system of user fees will lead to the realization of the importance of keeping their natural assets sustainably managed as such would provide stream of revenues to improve their well-being. The ability of communities to make informed decisions on the utilization and management of their natural assets for their own benefit constitutes empowerment.

Component 4: Knowledge Management (GEF: \$275,000): This component will ensure that the experiences and results of this project are properly captured and disseminated to in-country stakeholders as well as project partners, including UNDP and GEF. The proper management of knowledge will require transparent and timely sharing of data, and other information through proper communication means, including IW:LEARN.

Component 4 will have one Expected Outcome – 4.1. The aim of this outcome is to improve data and information systems on biodiversity, forests and climate change, and land and coastal and marine management. The expected results from Outcome 4.1 include: a) the development of a information portal for easily accessible data and information sharing on biodiversity, forests and climate change and sustainable land and water management practices; and b) development of knowledge products and best practices for BD, LD, CC, IW, and SCCF focal areas disseminated through various media.

A.1.4) Incremental cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing

The current baseline can best be described as a lack of proper integrated environmental management with coordinated efforts across all the key stakeholders that comprise both terrestrial and coastal and marine interests. Under a continued business as usual scenario, the response to specific environmental issues will be addressed in an uncoordinated manner. Not only would this lead to less than ideal results, it might also jeopardize the success of other ongoing initiatives. Further, without better communication among the various sectors and stakeholders across the ridge to reef spectrum, future planning will constantly put established protected areas in harm's way. Like other projects in the Pacific R2R program, this scenario is exacerbated by the fact that the countries are islands. Without GEF intervention, for previous successes of GEF and other conservation projects, including reforestation and establishment of terrestrial and marine protected areas, are at risk of long-term success. What capacity that has been achieved within the government and local communities will expire in time, and future investments will be impaired with significant capacity building.

With only a small intervention from the GEF Trust Fund through the Biodiversity, Land Degradation, and International Water focal areas, the project can leverage the large number of ongoing initiatives and catalyze both immediate and long-term impacts on this small island developing state. Specifically through GEF Biodiversity funds, the project will significantly strengthen the network of terrestrial and marine protected areas of Fiji. This will have a cascading effect in that it will not only improve overall ecosystem health, but it will protect valuable ecosystem services, improve tourism revenue, and promote global environmental benefits. Through GEF Land Degradation and SFM funds, the project will considerably improve the Fijian landscape's ability to sequester carbon and effectively utilize water resources whilst building capacity by testing innovative financing schemes, including REDD+, payment for ecosystem services, and forest certifications. Lastly, with the International Waters funds, the project will focus on improving integrated water resource management. However, the real strength of the GEF Trust Fund intervention will not be with piecemeal investments with each focal area. Rather, to achieve true ridge-to-reef management within the priority watersheds, the focal area investments will work together to address the various issues and support the different stakeholders that live along the Ridge to Reef transect, thereby achieving the various objectives of each focal area. Further, the project also provides a unique opportunity to build capacity of local professionals and governments, new stakeholder groups, and community leaders to build sufficient human capital on the islands for leading adoption of these integrated and participatory mechanisms to complement traditional measures.

The expected contribution from the LDCF/SCCF will be aimed at avoiding future infrastructure and economic losses with use of resilience measures helps each country reduce costs of disasters. Adoption of ICM policies and measures nationally will involve prior planning for infrastructure investments to avoid high risk areas and minimize vulnerability, so emergency costs for reacting to disasters should be less. Further, protection of certain coastal and marine ecosystems through healthy MPAs can lead to better shoreline protection from storms and reduce the economic costs that may be associated with increase storm frequency and intensity in light of climate change. Resilient measures introduced in the catchment pilot demonstrations should help reduce economic losses, increase farmer income, and sustain drinking water supplies that would be subject to droughts. Additionally, human health should be improved and hospital costs reduced with continued access to safe drinking water during droughts and reduction of sewage pollution of groundwater supplies and shellfish.

The expected contribution from cofinancing partners is over \$30 million. Cofinancing from the Government of Fiji is almost 80% with the rest from UNDP (over 13.5%) and NGOs (about 6.5%). The UNDP cofinancing is both in grant and in-kind with the majority coming from a UNDP project in Fiji on climate adaptation.

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

This project will lead to ecological sustainability of terrestrial and marine ecosystems, which will result in the preservation of ecosystem goods and services, including: shoreline maintenance, storm protection, soil protection, water provision (quality and quantity), flood control, carbon sequestration and increased resilience and self-repair of ecosystems from other stresses e.g. increase sea levels and temperature. A more detailed analysis of global environmental benefits is provided in the table below.

Global environmental benefits	
1. Protected areas	
BD:	<ul style="list-style-type: none"> Establishment of New terrestrial and marine protected areas (delineated following ecosystem boundaries) and declared covering terrestrial area of over 27,000 ha and coastal area of over 6,700 ha Protection of ecosystem goods and services within PAs, including: shoreline maintenance, storm protection, biodiversity habitat, fish stocks, tourism attractions, soil protection, water provision (quality and quantity), flood control. Protection of globally significant biodiversity, including the endangered, endemic the Fiji Petrel and the Red-throated Lorikeet.
CC:	<ul style="list-style-type: none"> carbon sequestration, and increased resilience and self-repair of ecosystems from other stresses e.g. increased sea temperature
2. Production landscapes	
BD:	<ul style="list-style-type: none"> Reduced sedimentation and nutrient loading impacts on coral reefs, mangroves and seagrass beds in downstream MPAs
LD:	<ul style="list-style-type: none"> Direct benefits over the medium up-scaling of demonstration SLM practices, reduces soil erosion, pollution and forest clearance covering 5 communities with a total area of ~10,000 ha. (Ba, Tuva, Vunivua, Labasa, Waidina)

Global environmental benefits

- Indirect benefits over the medium to long term from reduced pressures from conflicting land use and replication of SLM across the entire Labasa, Vunivua & Tuva Watersheds covering 18,741 ha.
- Direct benefits through reduced soil erosion, sedimentation and pollution and threat of fire
- Direct benefits through re-vegetation & afforestation

CC

- Reduction in GHG emissions from better management of production forests and improved silvicultural practices

Socioeconomic Benefits

The project would have various immediate and long-term socioeconomic benefits for local communities. For the environmental conservation and management of coastal and marine ecosystems, about 300,000 of Fiji's population living along the coastlines and river mouths will have direct economic benefits and environmental benefits from a healthier ecosystem. A healthy ecosystem will support a wider range and higher density of flora and fauna which can generate economic revenue, provide food security, and improve livelihoods, especially as this coastal population's main source of protein is from fishery consumption. Minimizing land degradation through sustainable land management practices and sustainable use of forest products will enhance the ability of local communities to maintain agricultural and forest product-related livelihoods. Further, building awareness of the effects of climate variability and change will be critical for small island states like Fiji to quickly adapt. From improved coastal protection services offered by healthy ecosystems to more sustainable integrated water resource management in light of less predictable precipitation will ensure long-term socio-economic benefits of the Fijian people.

Many of the women in the villages and rural communities bear an enormous burden in finding creative ways of sustaining their families, from engaging in micro business enterprises to fishing and gleaning along the seashore. Gender and social issues will be fully considered in this project, and gender accountability is a cross-cutting issue at both the project level and component level that will be tracked as part of the M&E system. Special attention will be paid to gender issues in project implementation such as representation in catchment management committees, developing socioeconomic indicators, and in the capacity-building activities.

As is the case with other community-based conservation sites in Fiji, consultations with communities will explore alternative sources of livelihoods and best practices/lessons learnt from other sites. For instance sustainable and better utilization of land for agriculture includes sustainable land management practices that have worked in other parts of Fiji that have resulted in higher yields and arable soils. Incentives for minimizing logging include agroforestry and utilizing some other income generating activities such as ecotourism.

Ecotourism is increasingly becoming popular in Fiji whereby communities are generating income from ecologically-aware tourists, especially as tourism is Fiji's main income earner. It is not uncommon to have villages and community having guided tours of forests for bird-watching, river boat rides and tour boats for marine related activities such as snorkeling and deep sea diving. Apart from these nature tours, the villagers also have the opportunity to sell their handicrafts at the village to the tourist, perform traditional dances and provide a traditional lunch, which are all covered by a financial levy paid by the tourist. These tours may last for a few hours or more with Eco-tourism lodges provided for overnight accommodation.

The projected population that would directly and indirectly benefit from the project of the project is indicated below. It is noted that this number may be an overestimate as it includes areas heavily populated downstream areas within the watershed that could benefit from spillover effects. The direct project beneficiaries will be estimated during PPG.

	Tikinas (rural)	Towns/Cities (urban)
Waidina	171, 987	47,604
Labasa	61,891	27,949
Ba	160,659	18, 526
Tuva	46,439	9,622
Vunivua	2,092	Not applicable
Tunuloa	3,450	7, 034
Total	446,518	110,735

A1.6) innovativeness, sustainability and potential for scaling up:

The project will capitalize on a number of innovative methodologies currently being tested for long-term sustainability in natural resource management. Specifically, the project will be establishing the capacity and pilot sites for testing REDD+ methodologies as well as Payment for Ecosystem Services, including forest certification and verification of Fijian timber supplies. Because the core activities of the project will be conducted in protected areas, the project will provide ample opportunities for communities to scale up the project's results into other non-protected areas on other islands.

However, successful project implementation will require innovation to run parallel with local practices that have proven effective and worthy of upscaling. For example, the use of marine resources within traditional fishing grounds (*qoliqoli*) in Fiji were governed by customary law and informed by traditional ecological knowledge. Traditional conservation mechanisms such as *tabu* (no take zone in fishing grounds) and control over the number of villagers allowed to harvest fish. Many of these customs and practices have continued to play a part in the village life. Thus, for institutional sustainability this project (following in the example of other NGOs such as FLMMA) will use existing traditional structures to guide the governing and managing the community based aspects and initiatives of this program. As has already been experienced in earlier projects, initial benefits experienced from an improved environment usually provide an incentive for local communities to continue such activities indefinitely. The private sector partners, community members, NGOs and private sector partners within the catchments will be actively involved in developing small to medium sized community based business ventures and services in protected areas and catchment, thereby generating additional revenue for the PA system.

A.2 Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

Stakeholder involvement will be critical to the successful application of Ridge to Reef in Fiji. Below is the list of key stakeholders who will be involved in the project:

Stakeholder	Expected Role in Project Implementation
Department of Environment	Executing Agency. It will also be responsible for ensuring that the policy and legal framework are in place for the effective management of the country's natural resources and will have overall responsibility for the implementation of the project.
Climate Change Unit , Foreign Affairs	Responsible for ensuring the documentation and all issues associated with Carbon Sequestration, working closely with Agriculture and Forestry
Dept Agriculture & Land Use Section/ Land Resource Planning Division	Implementing & upscaling from lessons learnt & best practices from IWRM & SLM
Department of Fisheries	MPAs facilitation especially as the Chair of the FLMMA has to be from Fisheries
Landowners Resource owning Communities)	Participate in model farms for upscaling of SLM activities, as resource owners, will be important in PA decisions. Important to get ownership of project for sustainability so will have to be part pf various working groups.
Department of Forestry	Lead role in SFM, all forestry-related work & terrestrial protected areas
Provincial Council/Ministry of I Taukei & Ministry of Rural Development	Co-ordination & support to community based stakeholder Design stage will work through/with existing traditional governance and decision structures
Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs) including gender focussed NGO's such as Soqoqo Ni Vakamarama (Women's group)	Included in working groups, training and stakeholder consultations as appropriate. Will be able to carry out some activities in the logframe. Will be consulted for community networking/gender sensitivity as they are already working at some of these selected sites.
Department of Culture and Heritage	Strengthening /supporting the conservation, preservation, promotion and protection of cultural and natural heritage
National Trust of Fiji	As chair for the Protected of Work on protected Area Networking Group, The NTF will provide lesson learnt and important technical/biodiversity information relevant to proposed community based demonstration sites
Educational institutions	Regional university - University of the South Pacific, National Universities (Fiji

	National University & the University of Fiji) -are important knowledge hubs and can be supportive in creating awareness.
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The project has heavily engaged all stakeholders including CSOs during the formulation of the PIF through at least two workshops held in Suva. A team consisting from UNDP and government also did consultations in the selected watersheds in the main islands (Viti Levu and Vanua Levu) and conducted consultations with communities. The consultations will be intensified during the PPG where more field visits will be made in each priority site. During project implementation there are several mechanisms for participation of all stakeholders and the primary mechanism is through activities related to Outputs 3.1.2 and 3.1.3.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Risk	Level	Mitigation Measures
Pressure on the environment and natural resources due to poverty, increase in population, urbanization and economic development.	Medium	Community & govt ownership of the project to be ascertained at the commencement of the project and perpetuated throughout so that the pressure on the environment can be alleviated in alternative ways. The project aims to continue to bring about transformational change in the mindset of the community by raising awareness on the consequences of unsustainable use of the environmental resources, with actual examples from Fiji, the Pacific and other parts of the world. At the same time, the community will be made aware of best practices (e.g. SLM, ecotourism) that help ensure economic livelihoods and also protect the environment.
Climate change effects:– disaster prone area – flash floods, tropical cyclones.	Medium	The destruction of any CC mitigation strategy put in place (such as newly planted seedlings in reforestation) can be minimised by careful environmental planning (such as planting during non-hurricane seasons and transferring from nurseries when seedlings are much more stronger to withstand extreme weather).
Lack of capacity for legal enforcement of env legislation/policies and community based environmental taboo (tabu)	Medium	Community members trained to monitor changes by recognizing indicators of changes in environment. Use of community wardens to monitor & enforce at community based conservation/project sites
Lack of collaboration between and amongst national government departments and non-governmental organizations	Low	Project design will include participation of government departments and non - governmental organizations. Design stage will work through existing formal and informal networks amongst government and non -governmental organizations

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

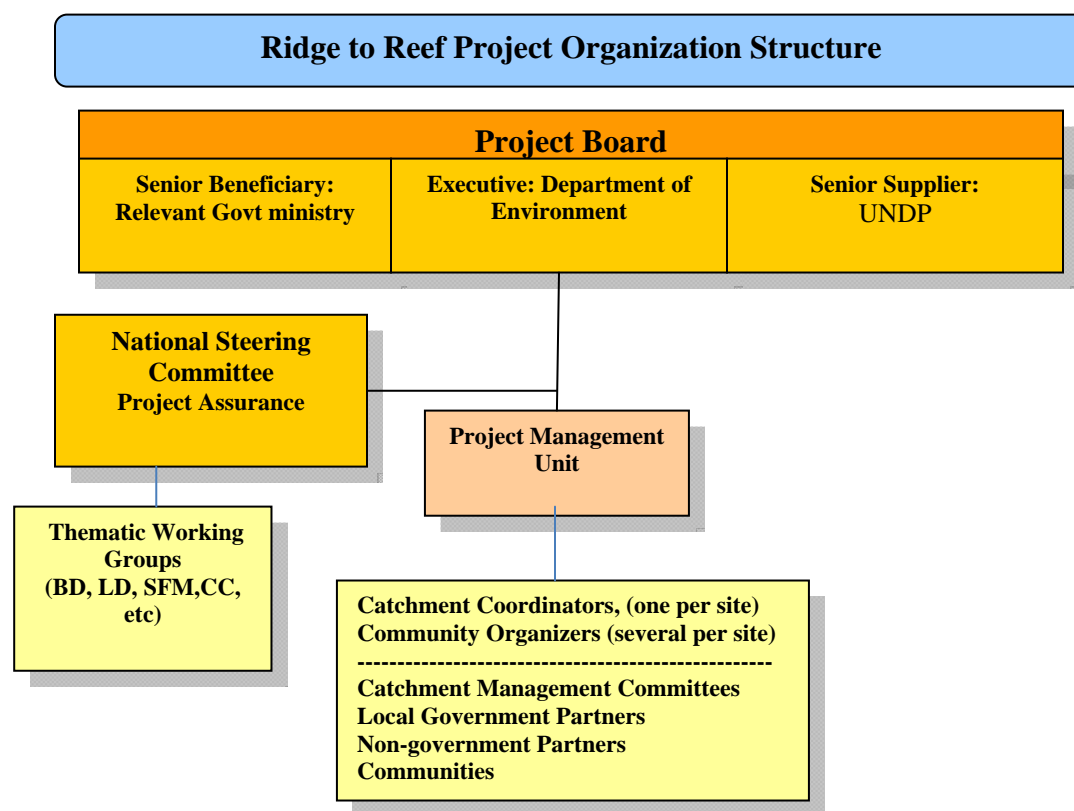
As part of the R2R program for the PICs, the project will be coordinating with the rest of the subprojects under the program. It will benefit from technical support and capacity building through the regional program support project. The details of the coordination mechanism will be developed during the PPG phase of the program support project and will be appropriately reflected in this project's project document.

The proposed project will be carried out in coordination with several other projects, as described below:

- Integrated Water Resource Management (2008- 2013) GEF funded with Department of Agriculture as the lead agency
- Management of Marine and Coastal Biodiversity In Pacific Islands States and Atolls Project (2013 – 2018) : funded by the Federal Ministry for Environment, Nature Conservation and Nuclear safety (Germany). The project budget is 8.1 Million Euros covering five countries including Fiji, Solomon Islands, Tonga, Vanuatu and Kiribati. Socio-economic assessments of marine and coastal ecosystems at national and regional level will be conducted with the aim of developing national plans. Implementing partners include SPREP and IUC

- BIOPAMA (Biodiversity and Protected Areas Management) is IUCN's landmark programme to improve management capacity for effective protected areas management. IUCN has signed a 9.5 million Euro contract (commencing 2013) with the European Commission to implement BIOPAMA in the African, Caribbean and Pacific region (ACP). In the Pacific region, this will include Fiji. Project to be implemented by International Union for Conservation of Nature (IUCN), Joint Research Centre (JRC), & German Society for International Cooperation (GIZ).
- Improving Key Services to Agriculture Fiji (IKSA): A three and a half year period (*commencing in 2013*) aiming to develop new opportunities in horticultural and sugar markets through research and the provision of assistance to farmers to venture into horticultural crops through improved access to agricultural inputs such as fertilizers, seeds and assistance with land preparation. The project is implemented by the *Secretariat of the Pacific Community (SPC)* with funding from European Union-funded project. The project is working in the Sabeto watershed, Viti Levu.
- National Biodiversity Planning to Support the implementation of the CBD 2011-2020 Strategic Plan in Fiji (2013 -2014); a US\$200,000 GEF funded project aimed at The project builds on the current status and achievements of Fiji with respect to biodiversity planning and reporting. It aims to integrate Fiji's obligations under the CBD into its national development and sectoral planning frameworks through a renewed and participative 'biodiversity planning' and strategizing process.
- Building Resilience: Strengthening Community Adaptation Measures to Effects of Climate Change in the Fiji Islands - a 2 year climate change project (2012 -2013) aimed at protecting and improving coastal ecosystem services and supporting long-term food security, livelihoods and the well-being of Fijian communities. The project's ultimate goal is to reduce the vulnerability of targeted communities to the impacts of climate change through a strengthened and coordinated approach within a national climate change policy and strategy framework by the year 2013. Implementing partners include the Department of Environment, Land Use Planning and Live and Learn Environment Education.
- Pacific Adaptation to Climate Change (PACC): A regional project with a budget of US 13,125,000. The project is from 2009 to 2013. The PACC Project is designed to promote climate change adaptation as a key pre-requisite to sustainable development in Pacific Island countries. Its objective therefore is to enhance the capacity of the participating countries to adapt to climate change and climate variability, in key development sectors. The Pacific Adaptation to Climate Change (PACC) project is funded by the Global Environment Facility (GEF) and the Australian Government (AusAID), with the United Nations Development Programme (UNDP) as its implementing agency and the Secretariat of the Pacific Regional Environment Programme (SPREP) as implementing partner.
- Sustainable Land Management (SLM): the Department of Agriculture (Land Resource Planning Division) secured a fund of US\$112,000 to promote in Fiji in 2013. The project will build support initiatives of a previously GEF Funded SLM project which ended in 2012. Activities to be supported by the project include socio-economic and biophysical surveys as well as community capacity building.
- Forestry and Protected Areas Management (GEFPAS-FPAM): *a four year project launched (2012 -2015), aiming to enhance* the livelihoods of island communities by strengthening biodiversity conservation and reducing forest and land degradation in Fiji, Samoa, Vanuatu and Niue. The project was launched at an inception workshop in Nadi, Fiji in July 2012 with a budget of US\$18 million dollars.

The project will be implemented following the general organigram indicated below. This will be refined during PPG with the roles and responsibilities for all stakeholders and project positions outlined in detail.



B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

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

The project will support the goals of various national development policies in Fiji. Strategic priorities of the Fiji Government are detailed in the Roadmap for Democracy and Sustainable Socio- Economic Development 2009- 2014 (RDSSD) with the overriding goal of building “A Better Fiji For All”, including the environmental aspect. “Ensuring Environmental Sustainability” is the 7th MDG provides a framework for integrating the principles of Sustainable Development into national policies and also includes ensuring availability of safe drinking water and improving sanitation.

The Implementation Framework 2010-2014 for the NBSAP (2007) identified seven key thematic areas: 1) Forest conversion management, which looks at improving coordination of Government policies, legislations and management guidelines, promoting research and awareness on forests and terrestrial resources, improving land-use practices through enforcement with well-monitored land-use policy and logging codes; 2) Invasive alien species, which aims to identify and document invasive species and use the information to develop a plan that would prohibit the introduction of new invasive alien species and eradicate existing species identified; 3) In-shore fisheries, which looks at promoting sustainable aquaculture for re-stocking, promoting biodiversity tourism, maintaining existing protected areas, designing new ecologically relevant inshore MPAs, strengthening leadership, management and governance of natural resources, promoting education and awareness in environmental science, improving collaboration and coordination between relevant government agencies, and reforming fisheries legislation and management institutions, and reducing demand for marine natural resources and biodiversity products; 4) Coastal development, which looks at strengthening national guidelines for inter-sectoral coastal development, developing and promoting partnership between government agencies and stakeholders towards sustainable tourism development, inclusion of non-tourism development activities, strengthening of national mangrove management plan; 5) Species conservation, which looks at increasing access to expertise and increasing efforts in qualitative research, reducing illegal trade of endangered and threatened species, increasing government contribution to conservation budgets, improving collaboration between relevant line

ministries, improving knowledge management and sharing amongst stakeholders; 6) Protected areas, which looks at expanding national protected area network, accounting for community engagement, sustainably managed under good governance systems, and improving legal basis for protected areas; and 7) Inland waters, which looks at increasing protection, preservation and restoration of important wetland resources and ecosystem services to conserve biodiversity and maintain livelihoods.

While updating its First National Communication (2006) through the Second National Communication (in-progress), Fiji developed a REDD+ Policy (2011) and Climate Change Policy (2012) to advance its commitment on climate change adaptation and mitigation. Fiji's REDD+ Policy (2011) will support the global efforts to reduce greenhouse gas emissions, relevant domestic legislation and policies, and Fiji's efforts to conserve its natural forests, valuable ecosystem services and its biodiversity. Relevant to this project is its implementation programme geared towards; 1) Retaining and enhancing the carbon in its forested landscapes; and 2) Achieving sector goals such as transition to sustainable forest management, reducing forest loss from expansion of agricultural lands and other land use change, protecting indigenous forest areas of high cultural, biodiversity and ecosystem services value. Fiji's National Climate Change Policy 2012 was developed as a result of the review of its National Climate Change Policy Framework 2007. The policy, which aims to improve coordination among sectors and provide direction on national position and priorities, comprises eight main objectives of which four are relevant to this project: 1) Mainstreaming of climate change into all national and sector policy and planning processes; 2) Awareness raising for improved understanding of climate change related issues across all sectors and at all levels; 3) Integration of adaptation and disaster risk management strategies; and 4) Mitigation approaches for reducing greenhouse gas emissions and increasing carbon sequestration and storage of greenhouse gases.

Fiji's Strategic priorities of the Fiji Government are detailed in the Roadmap for Democracy and Sustainable Socio- Economic Development 2009- 2014 (RDSSED) with the overriding goal of building 'A Better Fiji For All', including the environmental aspect. 'Ensuring Environmental Sustainability' is the 7th MDG provides a framework for integrating the principles of Sustainable Development into national policies and also includes ensuring availability of safe drinking water and improving sanitation. Relevant Pacific programs that Fiji are a signatory to include the Pacific Plan (2004) with the Strategic Objective number 5 involving initiatives being promoted for the first 3 years in sustainable development, fisheries, forestry, coastal waters, waste management, energy, freshwater management, biodiversity and climate change. Other relevant Pacific programmes include Action Strategy for Nature Conservation in the Pacific Island Region (2002), Pacific Island Roundtable for Nature Conservation (2002) and the Island Biodiversity Programme of Work (2006). Fiji is also involved with Coral Reef Initiatives in the Pacific (CRISP), Locally Managed Marine Area (LMMA), Pacific Invasive Learning network (PILN) and Pacific Biodiversity Information Forum (PIBF).

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

The project has been designed to assist in strategically programming their GEF STAR allocations in a manner that both meets national priorities and adheres to relevant GEF focal area objectives, outcomes, indicators and outputs. Fiji's STAR allocation is greater than \$7 million and does not have flexibility when programming across individual or multiple focal areas and focal area strategies, and thus will address environmental and natural resource management issues in priority catchments and watersheds on Fiji two largest islands. Actions in each focal area are intended to complement each other to promote a truly integrated approach to the management of natural resources. This project was designed to deliver tangible and quantifiable global environmental benefits across the BD, LD, CC, SFM, and IW focal areas. Additionally, the SCCF will be utilized to address urgent climate change adaptation needs. This project seeks to focus on innovation, testing, and catalyzing implementation of cutting-edge methodologies and technologies and policy reforms with the objective of enabling replication and future scaling-up. The following paragraphs outline consistency of the projects within the larger Pacific Ridge to Reef Program and the GEF 5 focal area Strategic Objectives.

Biodiversity (BD) Strategy: The project promotes the conservation and sustainable use of biodiversity and the maintenance of ecosystem goods and services through the improved management of existing and new protected areas, sector reforms to conserve and sustainable use biological diversity, and the incorporation of biodiversity conservation and sustainable use into planning frameworks. Two of the BD Strategic objectives for GEF 5 are addressed by this project – BD-1 and BD-2. The project supports the development and implementation of comprehensive protected areas systems and helps build the capacity required to achieve their financial sustainability consistent with BD-1. The project is also consistent with BD-2 in that it will

increase and expand sustainably managed landscapes and seascapes that integrate biodiversity conservation maintaining economic livelihoods that are closely tied to maintenance of healthy ecosystems.

Land Degradation (LD) Strategy: The project seeks to contribute to arresting and reversing current trends in land degradation in the Pacific, which is aggravated by deforestation and unsustainable land management particularly in the more mountainous areas and other landscapes with fragile soils that are vulnerable to soil erosion.

Sustainable Forest Management (SFM/REDD+) Strategy: The project will achieve multiple environmental benefits from improved management of forests, in conformance with the GEF-5 strategy for SFM which aims to reduce pressures on forest resources and generate sustainable flows of forest ecosystem services and strengthen the enabling environment to reduce GHG emissions from deforestation and forest degradation. One of the SFM objectives for GEF 5 are addressed by this project – SFM-1 Forest Ecosystem Services: *Reduce pressures on forest resources and generate sustainable flows of forest ecosystem services.*

International Waters (IW) Strategy (IW Strategic Objectives 1): The project seeks to test cross-focal area, and thus cross-sector, integrated management of catchments. The project specifically addresses IW-1: Transboundary Basins/ Aquifers. The strategy of testing integrated management approach and complemented by the Program's regional multi-focal project (consisting mostly of IW funding) poses serious coordination, cooperation, learning, experience sharing, and administrative costs but is the only way to achieve a sustainable future for island states like Fiji.

Climate Change (CC) Mitigation Strategy: The project will support efforts to conserve and enhance carbon stocks through sustainable management of land use, land-use change, and forestry (LULUCF), and prevent GHG emissions of carbon stocks by reducing forest degradation pressures on these lands in the wider R2R landscape specifically through CC Strategic Objective five - CCM-5: LULUCF. The project activities will also be linked with cross-cutting Sustainable Forest Management (SFM) objectives and generate measurable reductions in GHG emissions.

Climate Change Adaptation Strategy through the Special Climate Change Fund (SCCF): The project will mainstream adaptation into the development sectors, ICM, and IWRM as well as updating risk and vulnerability assessments to include the R2R approach. Further details will be provided during application for SCCF support.

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

UNDP-GEF's capacity in Ecosystems and Biodiversity is demonstrated through on-going work with over 146 countries to support the current implementation of 274 projects with a value of USD 3.4 billion that achieve multiple development benefits. Roughly USD 900 million constitutes grant financing from the various funds administered by the Global Environment Facility (GEF). More than 25 highly skilled staff based in regional centres and Headquarters, along with a vast network of UNDP staff in country offices around the world, support efforts to develop the capacity of countries to better manage their natural resources. Further, UNDP's 2012-2020 Biodiversity and Ecosystems Global Framework seeks to harness the positive opportunities provided by biodiversity and natural ecosystems, as a catalyst for sustainable development. With forty years of experience in the biodiversity and ecosystems field, working at the national level, UNDP is well placed to work with developing countries and countries in transition to achieve the Aichi Targets by 2020. The Framework seeks to leverage the organization's status as a trusted partner of governments and its unique ability to link work on biodiversity and ecosystems with that on poverty reduction, governance, and crisis prevention through integrated programming.

UNDP's Strategic Plan for 2008-2013 approved by the UNDP Executive Board includes Managing Energy and the Environment for Sustainable Development (Goal 4), and includes the outcome Strengthened national capacities to mainstream environment and energy concerns into national development plans and implementation systems. UNDP has taken further internal steps to operationalize the mainstreaming elements of the Strategic Plan at a subsidiary level through its Water Governance Strategy endorsed by the UNDP Management Group in 2007. The Water Governance Strategy includes as one of its three Strategic Priorities Regional and Global Cooperation and the associated Outcome, Enhanced regional and global cooperation, peace, security and socio-economic development through adaptive governance of shared water and marine resources, and the principal Output, Assist countries to develop and implement cooperation on international waters through multi-country agreements on priority concerns, governance reforms, investments, legal frameworks, institutions and strategic action programs.

Notably, UNDP's work on improving governance of international waters incorporates both freshwater and marine water bodies and has for some time applied a R2R approach recognizing the freshwater-marine continuum and important linkages between upstream water and land management and the health and integrity of downstream coastal and marine ecosystems. Underscoring this approach is UNDP's poverty reduction mandate and commitment to preserving and enhancing food security and livelihoods of the nearly 2 billion people who depend on healthy, functioning marine ecosystems. UNDP has consistently delivered results through a broad range of GEF projects in all GEF focal areas. The Fiji Multi-country Office (MCO) based in Suva, Fiji is the responsible UNDP unit for the proposed project. With regard to capacities there is staff working in key areas including operational and financial and there is an Environmental Management & Financing Unit that currently consists of a total of six staff. One of these staff will act as the UNDP focal point for the project. In addition, the UNDP/GEF Regional Technical Advisor for International Waters in the Pacific is based in Bangkok, Thailand at the UNDP Asia Pacific Regional Centre. Thus UNDP has the required on-the-ground operational, financial and technical capacities.


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

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

NAME	POSITION	MINISTRY	DATE (MM/DD/YYYY)
Mr. Jope DAVETANIVALU	Director of Environment	Ministry of Local Government, Urban Development, Housing and Environment	March 27, 2013

B. GEF AGENCY(IES) CERTIFICATION

request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.

Agency Coordinator, Agency name	Signature	Date MM/DD/YYYY)	Project Contact Person	Telephone	Email Address
Adriana Dinu		April 15, 2013	Jose Erez Padilla	+662 304 9100 ext 2730	jose.padilla @undp.org

Annex A

Preliminary⁹ Computations of CO₂ Benefits from the Project

Emissions avoided

The project will create new protected areas (Output 1.1.1) and will introduce forest certification (Output 2.2.1). This is expected to significantly remove pressure on forest resources. By conservative estimates, the deforestation that will be avoided as a result of these two outputs is in the order of 1,000 ha of tropical forests (50% tropical dry; 50% tropical moist forests). The loss of 500 ha of tropical dry forests is equivalent, at minimum to release of 137,867 of CO₂-eq/year. The loss of 500 ha of tropical moist forest is equivalent to emission of 249,883 of CO₂-eq/year. Together this is 387,750 CO₂-eq/y avoided as a result of Outputs 1.1.1 and 2.2.1.

This has been calculated following the Tier-1 method, based on the IPCC 2006 National GHG Inventory Guidance, Vol.2 AFOLU, Chapter 4. Table 4.7, Above-ground biomass in forests, suggests that tropical dry forests in insular Asia contain 160 tons of dry matter per ha above ground; for tropical moist forests this is 290 t.d.m (below ground biomass loss, as well as loss in organic soil carbon and litter omitted from the current calculation for conservatism); . The carbon fraction default value of 0.47 (Table 4.3) was used. The default conversion of carbon to CO₂ is *44/12:

Tropical moist forests loss: $500\text{ha} \times 290\text{t.d.m./ha} \times 0.47 \times 44/12 = 249,883 \text{ tCO}_2\text{-eq/y.}$

Tropical dry forests loss: $500\text{ha} \times 160\text{t.d.m./ha} \times 0.47 \times 44/12 = 137,867 \text{ tCO}_2\text{-eq/y.}$

Carbon sequestered

Outputs 2.2.1 and 2.2.2 will aim at reforestation and restoration of forests using native species. The total area that is sought to be afforested under 2.1.1 is 14,521 ha. The total size of the area targeted for restoration under Output 2.2.2 is 59,966 ha; within it the estimated degradation (baseline lack of vegetation to be compensated by the project through restoration of vegetation cover) is assessed by default to be 25%, which is approximately 15,000 ha of 59,955. In total as a result of Outputs 2.2.1 and 2.2.2 the forest vegetation cover is expected to increase by 15,000+14,521=29,521 ha as a result of GEF investment. This forest is assumed, for conservatism, to be mostly tropical dry forests.

The IPCC Good Practice Guidance for National Inventories (2006, AFOLU Volume, Table 4.12, column Above-ground net biomass growth in forest plantations in d.m. per ha per year) estimates for tropical dry forests the annual increment of above-ground biomass in plantations to be 8.0 tons aboveground dry biomass per year or 3.76 tons of carbon per year (IPCC conversion factor of 0.47 for d.m. to C conversion). The relevant root to shoot ratio is 0.56 (IPCC table 4.4, for under 20 t per ha), the total carbon increment per ha is therefore $3.76 + 3.76 \times 0.56 = 5.87 \text{ tC/ha/y}$, or, when converted to CO₂, is 21.51 tCO₂-eq per ha per year (litter and soil carbon pool fluxes are ignored for conservatism at this stage). For 29,521 ha of forests created under Outputs 2.2.1 and 2.2.2, the annual sequestration benefit is estimated to be $21.51 \times 29,521 = 634,997 \text{ tCO}_2\text{/y.}$

The total carbon benefit and CCM cost-effectiveness

The total carbon benefit (emissions avoided + carbon sequestered) of the project is 1,022,747 tCO₂/y. From the climate change mitigation cost-effectiveness perspective, the total investment from the Climate Change Mitigation and SFM focal area of US\$ 13,406,940 (GEF plus co-financing) will thus conservatively generate total carbon benefits (emissions avoided plus carbon sequestered) amounting to 10,227,470 tCO₂-eq over a 10-year time horizon (used in GEF CCM and SFM tracking tools for LULUCF). The unit cost of mitigation is therefore US\$1.31/tCO₂, which is far below the cost of most of the presently known climate change mitigation approaches.

These figures above are used as an initial estimate at the PIF stage. It is recognized that that the sequestration progression is non-linear and that for avoided emissions other carbon pools should be taken into account, but at the same time, certain allowances would need to be made for withdrawal of alien species and for harvested wood products. Detailed calculation will be implemented using a corresponding carbon benefits calculator at the PPG stage.

⁹ This will be refined and computed by site during PPG and will reported at CEO endorsement.

Annex B

Existing Land Use in Priority Watersheds

	Tuva	Ba	Labasa	Vunivia	Waidina	Tunuloa
Total Area (ha)	26,988	102,354	38,657	5,551	55233	6,498
Forest Area (ha)	9,076	36,316	37,253	5,512	49405	6,498
Forest type Class	Area (ha)					
MUF Close	614	6284	6271	1754	28719	1,215
MUF Open	1760	12530	10998	2455	15597	4,652
PTF Close	17	382	1053	60	4241	100
PTF Open		509	942	20	840	495
Hardwood		1106	708		7	
Softwood	5950	10051	2701		1	
PTF Hardwood		12	8			
PTF Softwood	2	220	75			
Mangroves	733	5222		355		
Coconut			368	22		35
Non-forest			13741	846		
Inland Water			391			
Total	9,076	36,316	37,253	5,512	49405	6,498 *

MUF – multiple use forest; PTF – protection forest