

FAO/GLOBAL ENVIRONMENT FACILITY

PROJECT DOCUMENT



PROJECT TITLE: Resilient Islands, Resilient Communities	
PROJECT CODE: GCP/KIR/009/GFF	
COUNTRY: Kiribati	
FINANCING PARTNER: GEF Trust Fund	
FAO Project ID: 623415	GEF Project ID: 5551
EXECUTING PARTNERS: Ministry of Environment, Land and Agriculture Development, Ministry of Fisheries and Marine Resources Development, Island Councils	
Expected EOD (Starting Date): November 2017	
Expected NTE (End Date): September 2022	
CONTRIBUTION TO FAO's STRATEGIC FRAMEWORK:	<p>a. Strategic Objective/Organizational Result: Strategic Objective 2 (SO2), Organizational Outcomes 1 and 2</p> <p>b. Regional Result/Priority Areas Priority Area 1: Evidence-based Policy and Strategic Planning, Priority Area 2: Food and Nutrition Security Resilient to the Impacts of Disasters and Climate Change and Priority Area 4: Environmental Management and Resilience</p> <p>c. Country Programming Framework Outcome: a) Strengthened national capacity for evidence-based policies and strategies to enhance food and nutrition security b) Increased availability, access and utilization of local food and c) Strengthened capacity for environmental management and resilience</p>
GEF/LDCF/SCCF focal areas and strategic objectives: BD-1, LD-3, IW-3, SFM-1	
Environmental and Social Risk Classification (insert √): Low Risk Moderate Risk √ High Risk	
Gender Marker (insert √): G0 G1 √ G2a G2b	
Financing Plan: GEF/LDCF/SCCF allocation:	USD 4 720 030
<u>Cofinancing</u>	
MELAD	6 000 000
MFMRD	6 000 000
FAO	800 000
SPC	162 000
University of Wollongong	378 000
Sub-total cofinancing:	13 340 000
Total Budget:	18 060 030

Executive Summary

Kiribati is home to some of the world's most significant coastal and marine biodiversity. The country has more than 1500 documented species and 22 Key Biodiversity Areas (KBAs). Though Kiribati's terrestrial biodiversity is limited and the country has very limited land and agriculture resources with soils shallow, alkaline and very low in organic matter, many of indigenous crop species form the basis of sustenance on the islands. These include coconuts ('Te nii' – *Cocos nucifera*); pandanus, ('Te kaina' – *Pandanus tectorius*); breadfruit ('Te mai' – *Artocarpus altilis*); and giant swamp taro ('Te bwabwai' - *Cyrtosperma chamissonis*). Kiribati's near shore fisheries in the country's lagoons and coastal areas provide food, livelihood, nutrition, income and employment benefits. Fisheries play a critical role in local food security in Kiribati where the per capita consumption seafood is one of the highest in the world.

Within the above context, taking in to consideration the fact that Kiribati is a low-income food-deficit country (LIFDC) with a significant trade deficit amid limited export options and rising import costs, major environmental and developmental problems faced by Kiribati are i) continuing degradation of the island ecosystems and ii) the impacts of the climate change. There have been several initiatives/programmes implemented in the country to mitigate above mentioned challenges. In spite of these efforts, key barriers remain that prevent addressing environmental degradation issues effectively. These barriers are; i) inadequate institutional framework and governance weaknesses, ii) limited technical capacities and skills at all levels and iii) limited alternative livelihoods and economic opportunities.

This project will address these barriers through implementation of project the components noted below, with the objective to improve biodiversity conservation and landscape level management to enhance socio-ecological resilience to climate variability and change:

1. Enabling environment for R2R conservation and sustainable use
2. Implementation of R2R conservation and sustainable use strategies
3. Lessons learning and sharing

Expected project outcomes include the following:

- Enabling environment improved for ecosystem-based sustainable use and conservation of island resources (LD3 (tracking tool) Framework strengthening INRM score moved from 2 to 3; LD3 (tracking tool) Capacity strengthening to enhance cross-sector enabling environment score moved from 2 to 3)
- National management system for ecosystem-based sustainable use and conservation of island resources established to deliver SFM, LD, and BD benefits (23496 hectares covered by integrated natural resource management-land and marine- practices in wider landscape)

The project will be implemented in Butaritari, North Tarawa and Tabituea. About 10,090 community members are expected to benefit from the project.

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Acronyms and Abbreviations

ACIAR	Australian Centre for International Agricultural Research
ALD	Agriculture and Livestock Division
AUSAID	Australian Agency for International Development
AWP/Bs	Annual work plans and budgets
BH	Budget Holder
CBFM	Community-based Fisheries Management
CEDAW	Convention on the Elimination of all forms of Discrimination Against Women
CPF	Country Programme Framework
CTA	Chief Technical Advisor
CSO	Civil Society Organization
ECD	Environment and Conservation Division
EEZs	Exclusive Economic Zones
FAO	The Food and Agriculture Organization of the United Nations
FE	Final evaluation
FLO	Funding Liaison Officer
FPMIS	Field Programme Management Information System
GCP	Government Cooperation Project
KBA	Key Biodiversity Area
KDP	Kiribati Development Plan
KIEP	Kiribati Integrated Environmental Policy
KJIP	Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management
KNEG	Kiribati National Expert Group on Climate Change and Disaster Risk Management
K-NBSAP	Kiribati National Biodiversity Strategy and Action Plan
KSVA	Kiribati Seafood Verification Agency
KPA	Key Policy Areas
LIDFC	Low-Income Food-Deficit Country
LMD	Land Management Division
LoAs	Letters of Agreements
LTO	Lead Technical Officer
MELAD	Ministry of Environment Lands and Agricultural Development
MFMRD	Ministry of Fisheries and Marine Resources Development
MIA	Ministry of Internal Affairs
MLPID	Ministry of the Line and Phoenix Islands Development
M&E	Monitoring and Evaluation
NAP	National Action Plan
NAPA	National Adaptation Programme of Action
NGO	Non-governmental organization
NPC	National Project Coordinator
NZAID	New Zealand Agency for International Development
OFO	Operations and Finance Officer
PIPA	Phoenix Islands Protected Area
PIR	Project Implementation Review
PMU	Project Management Unit
PoWPA	The Convention on Biological Diversity's Programme of Work on Protected Areas
PPR	Project Progress Reports
PSC	Project Steering Committee
PTF	Project Task Force

PY	Project year
R2R	Ridge-to-Reef
SAP	FAO Subregional Office for the Pacific Islands
SPC	The Pacific Community
SRC	Subregional Coordinator
TCP	Technical Cooperation Project
TT	Tracking Tools
UNDP/GEF LDCF	United Nations Development Programme / Global Environment Facility / Least Developed Countries Fund
UNFCCC	United Nations Framework Convention on Climate Change
UNCLOS	UN Convention on the Law of the Sea
WOI	Whole of Island Approach

SECTION 1 – PROJECT RATIONALE

1.1 PROJECT CONTEXT

1.1.1 Geographical and Socioeconomic setting

Kiribati is an atoll nation, comprising of three main island groups scattered over 3 million square kilometres (sq km). The atolls are clustered into three groups; the Gilbert Group in the West, the Phoenix Group (in the centre), and the Line Group in the East. The total land area of all these atolls is about 800 sq km. The groups are so far apart that they have their own distinct Exclusive Economic Zones (EEZs) with a total sea area of about 3.5 million sq km, with international high seas separating them (Kiribati BPoA Report, 2010).

The Gilbert Island group consists of 17 islands with a total land area of 285.7 sq km. Many of these islands still maintain some forms of traditional land tenure and marine resource regulation systems. Tarawa Atoll, in the Gilbert group and the location of the capital, consists of more than 20 named islets, the southern six of which are linked by causeways. The distance between Tarawa and outer islands in the Gilbert group ranges between 51 km and 600 km (Thaman et. Al, 1995).

The Phoenix Island group consists of 8 mostly uninhabited islands with a total land area of just 28.6 sq km located about 1,750 km east of Tarawa. This island group now includes the Phoenix Islands Protected Area (PIPA). All islands within this group belong to the Government of Kiribati. The only inhabited island of the Phoenix group is Kanton (Canton) Island with the land area of 9 sq km. The island houses government officials who are stationed there for administration purposes.

The Line Island group consists of 8 islands with a total land area of 496.5 sq km, extending over a north-south distance of 2,100 km, located at a distance of between 3,280 and 4,210 km east of Tarawa, and some 800 km south of Hawaii. This group includes the largest island in Kiribati and also the biggest atoll in the world, Kiritimati, with a total area of 388.4 sq km.

Almost half of the country's population live in two urban centres; South Tarawa contains 44% of the total population and Kiritimati contains about 6% (MFMRD 2011). With a recorded population density of 2,558 people per square km in 2005, South Tarawa, and Betio in particular, are considered to be seriously overpopulated (MFMRD 2011). This is in stark contrast to the approximately 127 people per square km in the remainder of the country. This presents a set of unique environmental and socioeconomic challenges for the country, as it suffers from the effects of overpopulation, while lacking a sufficient population base to readily support a high-skills industry and institutional development initiatives.

1.1.2 Biodiversity in Kiribati

Kiribati is home to some of the world's most significant coastal and marine biodiversity, and is part of the Polynesia-Micronesia Biodiversity Hotspot. The country has more than 1,500 documented species and 22 Key Biodiversity Areas (KBAs). Marine fauna includes about 300 to 400 finfish species. There are 20 marine mammal species, species of note include Green (*Chelonia mydas*), Hawksbill (*Eretmochelys imbricata*), Loggerhead (*Caretta caretta*), Olive Ridley (*Lepidochelys olivacea*) and Leatherback (*Dermochelys coriacea*) turtles. Kiribati has also at least 350 species of coral.

The country has approximately 50 species of birds. The nation's remote atolls provide critical refuge for a host of migratory bird species. Kiribati supports globally important populations of many seabird species. This includes some of the largest breeding populations of two threatened species: the Phoenix petrel (*Pterodroma alba*); and the Whitethroated stormpetrel (*Nesofregetta fuliginosa*). Additional avian species of note include the Sooty tern (*Sterna fuscata*), White tailed tropic bird (*Phaethon rubricauda*), Masked booby (*Sula dactylatra*), and Scarlet-breasted lorikeet (*Vini kuhlii*).

There are several species found in the country that are endangered. These include four species of Giant Clams (*Tridacna gigas*, *Tridacna Squasoma* *Tridacna maxima*, *Cypraea spp.*), three turtle species (*Chelonia mydas*, *Eretmochelys imbricate*, *Dermochelys coriacea*), two species of whales (*Megaptera Novaeangliae*, *Balaenoptera musculus*) and 38 species of birds.

Kiribati's terrestrial biodiversity is limited. The terrestrial vegetation associations are generally coastal strand vegetation, mangrove areas, coastal marsh vegetation, and remnant stands of inland atoll forest. Notable species include Fish poison tree (*Barringtonia asiatica*) and Silver pipturus (*Pipturus argenteus*). Many of indigenous crop species form the basis of sustenance on the islands. Traditional crops include coconuts ('Te nii' – *Cocos nucifera*); pandanus, ('Te kaina' – *Pandanus tectorius*); breadfruit ('Te mai' – *Artocarpus altilis*); giant swamp taro ('Te bwabwai' - *Cyrtosperma chamissonis*); pisonia or the great lettuce tree ('Te buka' - *Pisonia gradis*); beach mulberry ('te non' - *Morinda citrifolia*), and the broadleaved purslane ('Te boi-*Portulaca lutea*).

1.1.3 Coastal fisheries

Kiribati's nearshore shallow water fisheries in the country's lagoons and coastal areas provide food, livelihood, nutrition, income and employment benefits. Fisheries play a critical role in local food security in Kiribati where the per capita consumption seafood is one of the highest in the world, ranging from 72 to 207 kg/person/year (Gillett, 2009). Kiribati is a low-income, food-deficit country (LIFDC) with a significant trade deficit amid limited export options and rising import costs. The most recent national household income and expenditure survey (HIES) in 2006 estimated that nearly half of the annual average household income of AUD\$ 8,700 is spent on food (KNSO, 2006). While commercial oceanic tuna resources constitute a large amount of Kiribati's GDP, its coastal fisheries largely supply the local demand for fish and provide a valuable and healthy source of animal protein for its communities.

Coastal fisheries also provide substantial employment and income benefits. In the most recent national population census, over half of all surveyed households and around 60% of rural households were engaged in some kind of fishing activity (Kiribati Census, 2010). These cash-based fisheries related livelihood activities are included where possible in formal economy GDP estimates (SPC, 2013a). However, the accuracy, completeness, timeliness and reliability of coastal fisheries catch and value statistics is generally poor, despite efforts made by the Ministry of Fisheries and Marine Resources Development (MFMRD)'s Coastal Fisheries Branch to conduct artisanal fishing surveys (thereby making it difficult to quantify the true importance of coastal fisheries). However, artisanal and small-scale commercial production was estimated to be approximately 7,600 mt in the 2014 and subsistence catch was estimated to be 11.4 million (Gillett 2016). Unlike commercial oceanic fisheries, coastal and lagoon-based catches are landed in Kiribati and are either consumed or sold locally or domestically. Domestic small-scale and artisanal catches have been steadily increasing over time but further small-scale fleet expansion has been constrained by a lack of safe low impact fuel efficient capture technologies

and efficient transportation options for moving fish from outer islands to the large markets in South Tarawa (MFMRD, 2011).

Small-scale tuna trolling has increased in recent years for both export to Tarawa and consumption in outer islands which contributes to income and livelihoods particularly on islands with no lagoon. However, in the majority of the outer islands the small-scale fleet constitutes the most important contribution to food security. They operate in the shallow water inshore lagoons using rudimentary bottom and mid-water hand-lines, pole and line, spears, traps, gillnets, and diving. The total number of fishers actively engaged in full- or part-time small-scale commercial and artisanal fisheries is unclear but it is likely that this number is considerable relative to the total size of the population.

1.1.4 Land-based resources and mangroves

Kiribati has very limited land and agriculture resources. Soils are shallow, alkaline and are very low in organic matter. Freshwater resources are limited to fragile shallow underground water lens that can turn saline easily through salt water incursion. Livestock production is primarily for subsistence (pigs and free range chicken). Forests, in the context of Kiribati, can be classified into three categories; 1) Coconut forestry (Land occupied by coconut)¹, 2) Land with trees/natural woodland (*Pandanus tectorius*, *Artocarpus altilis*, *Ficus carica* and *Calophyllum inophyllum*- planted forests, and other natural shrubs/bushes like *Morinda citrifolia* a, *Tormefortia argentea*, *Guerttarda speciosa*, *Pandanus tectorius* (wild) and *Scavola taccada*-naturally regenerated) and 3) Mangroves (*Rhizophora stylosa* locally known as ‘te tongo’; *Bruguiera gymnorrhiza* locally known as ‘te tongo buangi’; *Lumnitzera littorea* locally known as ‘te aitoa’; and *Sonneratia alba* otherwise known as ‘te aitoa’). For statistical purposes, land with trees/natural woodland is clubbed with mangroves due to data limitations. Land occupied by coconut is estimated to be 64,800 hectares (about 80% of the total land area). Land occupied by trees/natural woodland and mangroves together is estimated at 12,150 hectares (15% of the total land area). The most recent reliable assessment estimates mangrove area at 258 hectares (Metz, 1996).

These resources, though limited, play important roles in providing; housing materials for construction, shelter for both human and species, food, protection of water reserves and coastal areas that are most affected by the climate change and sea level rise. For example, coconut is considered a significant source with potential to produce multiple valuable products both for income generation and food security. But a significant part of the coconut population remain senile (at least 40 per cent). Pandanus trees act as a food source through their fruits and leaves. Mangroves stabilize tidal-zone soils and reduce the impact of storm surge and ocean salt spray. Besides providing habitat and sources of food to a variety of oceanic organisms, mangroves also control and regulate marine pollution (e.g. filtration of nutrient runoff from land).

In terms agricultural production, much of it provides food and work for the families producing it. The main products are taro, bread-fruit, bananas, sweet potatoes and vegetables.

1.1.5 Climate change, population and food security

Climate change is forecast to have substantial impacts on Kiribati coastal and oceanic fisheries, their habitats, and the little land area available. Over the rest of the twenty-first century and as early as 2030, changes to the state of global oceans are forecast to include alterations to: ocean

¹ Please note that for LD tracking tool purposes, coconut coverage has been calculated under agriculture area (as a tree crop).

temperatures, salinity, acidity, currents and sea levels. Changes to climate will include greater variability in the: year-to-year frequency and intensity of rainfall and drought events; coastal erosion; seawater contamination of Kiribati's few freshwater aquifer resources; and land area losses due to sea level rise. Kiribati is only a few meters above sea level. Sea-level rise in Kiribati has been measured at 1 to 4 mm per year since 1993; this equates to a current minimum sea level rise of 20 mm or a maximum of 80 mm, compared to 20 years ago.

The projected growth in atmospheric CO₂ concentration as a result of climate change is anticipated to perpetuate ocean acidification. This acidification, combined with an overall increase in ocean temperatures, has already led to increased hard coral die-off in Kiribati. These effects are forecast to become worse, particularly around the easternmost islands of Kiribati, where saturation levels of aragonite are forecast to be among the lowest in the region in the future. Organisms that use aragonite, one of the two common forms of calcium carbonate in the ocean, to build coral skeletons and shells will be susceptible to decreased calcification due to ocean acidification. Coral reef die-offs will affect the quality and availability of fish habitat and the abundance of reef-associated fish. Reef fisheries play a pivotal role in local food security. The potential for coastal reef fisheries catch declines has significant ramifications for domestic food security in the face of human population increases in Kiribati.

Sea level rise also affects agricultural production, specifically in two ways; saltwater intrusion and loss of coastal land to inundation. Variance in rainfall also has the potential to seriously impact copra production. Faced with increased stress from ocean acidification, the requirement to implement coral stress reducing / coping mitigations measures will increase.

The combination of climate change impacts, growing population pressure and limited livelihood alternatives has presented the significant challenge of ensuring food security without compromising the sustainability of natural resources.

1.1.6 Existing policy framework

Institutional and Legal Context

Kiribati gained independence in 1979 from the United Kingdom. The President serves as Head of State and Government. Presidential candidates are nominated by Parliament and subsequently elected nationally. The House of Parliament has 42 members each elected to four-year terms. Approximately 35 of these members represent various outer islands with the remaining 7 representing South Tarawa.

There are currently 15 national ministries. The most project relevant Ministries include:

- Ministry of Environment Lands and Agricultural Development (MELAD) oversees environment, land management, and basic conservation issues.
- Ministry of Fisheries and Marine Resources Development (MFMRD) oversees marine, fisheries and mining issues.
- Ministry of Internal Affairs (MIA) assists the efforts of Island Councils.
- Ministry of the Line and Phoenix Islands Development (MLPID) is responsible for administering the Line and Phoenix Island Group.
- Ministry of Finance and Economic Development is responsible for national planning and budgeting.
- Minister for Commerce, Industry and Cooperatives is responsible for private sector and industry development, international and domestic trade, copra and cooperatives.
- Ministry of Communication, Transport and Tourism Development supports tourism and tourism-based fishery projects.

Island Councils are responsible for setting and implementing island policies. Most immediate natural resource management decisions occur at the island level. Twenty islands in Kiribati have Island Councils. The Councils are generally composed of representatives from villages located on the island. Individual members then work at the behest of the village's chief and/or group of elders.

Island Marine Resources: On the Gilbert Islands, each Island Council has general regulatory authority over fisheries and other marine resources within 5.5 nautical miles of the coastline. At the Line Islands, the Ministry of the Line and Phoenix Islands has general authority over these resources in cooperation with MFMRD. In practice, coastal zone resources are almost unilaterally "open access". There are limited exceptions. For instance, Kiritimati (Christmas) Island has passed a well-supported by-law strictly outlawing the capture of bonefish. Canton Island regulates the total number of reef fish that may be exported off island. Live fish for the international aquarium market are also regulated via permit.

Land and marine tenure varies greatly across Kiribati. Lands within both the Phoenix and Line Island chains are a mix of government and private tenure. On these islands, government generally controls all development and leases property to individuals and businesses. In contrast, most land within the Gilbert Islands is privately owned. In the Gilberts, land ownership is generally hereditary and highly complex. Lands may be registered under the most senior family member, but there are generally multiple owners sharing lineal rights. Customary fishing rules and marine tenure have played an important role in resource in pre-colonial times, but have largely since only been informally recognized. However, the most recent fisheries act (described below) does include recognition of customary fishing rights.

The *Environment Act 1999* (as amended in 2007) is the primary law governing general environmental concerns. The objective of environmental legislation is the protection, improvement and conservation of the environment of Kiribati and introduces the legal regime for the creation and management of protected areas. Environmental legislation provides, among other things, for the making of regulations governing pollution, protected areas, species conservation and associated licensing and enforcement. The Environment and Conservation Division (ECD) within MELAD is responsible for implementing the Environmental Act.

The *Fisheries Act of 2010* provides for the conservation, management and development of fisheries in Kiribati including the promotion of the sustainable management of fishery resources and protection of fish stocks and marine environment. MFMRD has the specific mandate to implement the Fisheries Act and the National Fisheries Policy. The Act applies to "Kiribati waters" meaning all of the area comprising the internal waters, archipelagic waters, territorial seas and exclusive economic zone of Kiribati (as defined in Part II of the Marine Zones (Declaration) Act 1983.

The Fisheries Acts provides for the formulation of management plans for fisheries and marine resources. The Act empowers the Minister responsible for Fisheries and Marine Resources to designate 'fishery' areas to be managed in the national interest, including conservation. The legislation provides for setting conditions and fees for local licences and foreign licenses for fishing, processing, and aquaculture. The Act empowers Island Councils to impose penalties to those that do not comply with fishing by-laws, including harvest of fish and marine products. A person that is a member of a kainga or utu with customary rights over a particular area is not required to hold a licence but must comply with the bylaws of a local government council

relating to fishing in the area where the person takes the fish, and is subject to any penalties imposed by the council for not complying with the bylaws.

The *Local Government Act* (1984, amended 1995) governs the operations and authority of Island Councils. This applies primarily to the Gilbert Islands. According to the Local Government Act, the Island Council has direct jurisdiction over natural resource use. This includes land use, agriculture, and all fisheries located within 5.5 kilometres of the island. Under this Act, all Island Councils have the authority to pass regulatory frameworks for the management of coastal zone resources. In relation to natural resources, the functions of Island Councils includes, but is not limited to, providing for the improvement and control of fishing and related industries and prohibiting, restricting or regulating the hunting, capture, killing or sale of animals, reptiles, birds or fish or any specified kind of animal, reptile, bird or fish. These by-laws vary from island to island. It is important to ensure that the regulatory framework introduced by Island Councils is consistent with those provided for in the Fisheries Act 2010 and the Environment Act as amended. The by-laws and associated regulatory systems will be critical to project implementation success

Policy Context

This project will directly support objectives outlined in national policies. The specific policies that this project will support include;

- The *National Fisheries Policy* (2013 – 2025). The project will particularly support the achievement of goals 2 – 5 as set out in this policy: Protect and secure food security and sustainable livelihoods for I-Kiribati; Ensure long-term conservation of fisheries and marine ecosystems; Strengthen good governance with a particular focus on building the capacity of MFMRD to implement and support fisheries management, development, and monitoring, control and surveillance; and build climate change resilience for fisheries and marine resources in Kiribati.
- Kiribati’s *National Adaptation Programme of Action 2007* (NAPA) and the Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management 2014-2023 (KJIP). This project will directly support priorities identified by the NAPA, including: Coral Reef Restoration, Monitoring and Stock; Agricultural Food Crops Development; and Coastal Zone Management and Resilience Enhancement for Adaptation. The project is in specific alignment with a number of key strategies outlined in the KJIP such as strengthening good governance, policies, strategies and legislation (1), increasing water and food security with integrated and sector-specific approaches and promoting healthy and resilient ecosystems (4), and delivering appropriate education, training and awareness programmes (7). The KJIP identifies the “Whole Island Approach” as a national priority; e.g., “develop and implement a program for community-based integrated vulnerability assessment, climate change adaptation and disaster risk management such as the Whole of Island Approach (WOI).”
- Kiribati *Integrated Environmental Policy 2012-2022* (KIEP). The project will link to priorities in this policy including integration of conservation in public education curriculum, customary rights and tenure integrated into protected area management plans, and increase the number of protected areas and protected species under effective management.

- The project will build on, and be in line with, the 2007 *National Action Plan* (NAP) to address Land Degradation and Droughts. Further, land degradation is identified in the KIEP as a priority issue, especially in urban areas, where population pressure is putting unsustainable pressure on limited land resources, and foreshore areas.
- The Kiritimati *Integrated Master Plan for Oceanic and Coastal Fisheries and Aquaculture* 2014-2017 sets out development priorities specific to the island. This plan is a strategic action of the above mentioned Fisheries Policy and aims to improve both the management and the sustainable development of the fisheries and marine resources on Kiritimati Island

1.1.7 Project sites²

The project in its entirety will be implemented in Butaritari, North Tarawa, and Tabiteuea (for maps refer to Appendix 7). During the inception phase, Kiritimati will be considered, as an additional site.

Butaritari

Butaritari Island is located in the northern Gilbert Island chain. Butaritari has a wet climate compared with the central and southern islands. Butaritari has rich biodiversity that is reflected in having 4 species of mangrove found at Ukiangang mangrove forest. Butaritari has a host of globally significant species including: Green Turtles (*Chelonia mydas*), Humphead Wrasse (*Cheilinus undulates*), Polkadot Cod (*Plectropomus areolatus*), Blacksaddled Coral grouper (*Plectropomus laevis*), and Giant clam (*Tridacna gigas*).

Butaritari: Basic Information	
Location	Gilbert Islands
Land	1,300 ha
Marine Jurisdiction	178,700 ha
Reef	1,100 ha
Lagoon	29,570 ha
Total Forests (inclusive of mangroves)	260 ha
Villages	12
Population	4,300
Households	630
Schools	8
MELAD staff	1
MFMRD staff	1

North Tarawa

North Tarawa is located in the Gilbert Island chain. North Tarawa is sparsely populated as opposed to South Tarawa. The lagoon and reef resources shared by these two island areas provide habitat for critical species such as Green Turtles (*Chelonia mydas*), Big Eye Tuna (*Thunnus obsesus*), Humphead Wrasse (*Cheilinus undulates*), and Giant Clam (*Tridacna gigas*).

² Detailed socio-economic data and biophysical information, relevant to the project, will be gathered and compiled for each pilot site in the inception phase

North Tarawa: Basic Information	
** All data estimates	
Location	Gilbert Islands
Land	1,500 ha
Marine Jurisdiction	98,500 ha
Reef	37,500 ha
Lagoon	53,300 ha
Forests (inclusive of mangroves)	500 ha
Villages	14
Population	6,100
Households	1,000
Schools	12
MELAD staff	1
MFMRD staff	-

Tabiteuea

Tabiteuea is located in the southern Gilbert Island chain. The island is administratively divided between “Tab-North” and “Tab-South”. These administrative units share the same resources, including the extensive lagoon and reef fisheries. Tabiteuea offers critical habitat for species such as Giant grouper (*Epinephelu lanceolata*) and Humphead Wrasse (*Cheilinus undulates*).

Tabiteuea: Basic Information	
** All data estimates	
Location	Gilbert Islands
Land	2,500 ha
Marine Jurisdiction	346,0000 ha
Reef	4,900 ha
Lagoon	53,200 ha
Forests (inclusive of mangroves)	400 ha
Villages	18
Population	4,890
Households	931
Schools	15
MELAD staff	1
MFMRD staff	0

1.2 THE CURRENT SITUATION

1.2.1 Global Environmental Problem and Drivers

Two of the major environmental and developmental problems faced by Kiribati are the continuing degradation of the island ecosystems and the impacts of the climate change. Factors contributing to these problems include: pollution of the lagoons, build-up of solid waste, depletion of water, pollution of water from salinity and waste products, depletion of inshore fisheries and coastal erosion. Marine life is also under threat from pollution and plastic wastes. The spread of invasive species and agricultural pests and diseases, could potentially have a significant impact on the economy of Kiribati. Waste oil and other chemicals contribute to

pollution. Poor solid waste management practices is becoming an increasing problem. Hazardous e-waste and bulky waste (of old vehicles) both need managed collection and shipment out of Kiribati. Population pressures have resulted in overcrowding that is putting stress on housing, land management, crucial public infrastructure and the natural environment including underground water reserves. Deteriorating water quality will also impact on people's health. The high rate of population growth in South Tarawa is causing stress on water and sanitation services. The migration of more people to Kiritimati Island also puts pressure on the Government with regards to an increasing number of squatters and other land use issues.

Disconcertingly, behavioural attitudes towards the environment and limited enforcement of the Environment Act and other environmental-related legislation are also a major concern and compounded by a general lack of understanding among the population of the consequences of actions such as sand mining and inappropriate and poor fishing practices. However, in many cases, individuals have few alternatives and therefore fail to comply with existing legislation. This is an especially difficult situation given that unemployment rates are very high, especially of youth (54%) and school leavers, there is widespread poverty and hardship with over 21.8 per cent of the population under the basic needs poverty line.

Overexploitation of natural resources and habitat degradation

Given the extremely limited land availability, poor soil and intense periods of drought, domestic food production in Kiribati is limited. Accordingly, the population depends heavily on marine resources for their food, nutrition (and micronutrients) and livelihoods. At the same time, a significant part of the I-Kiribati also comes from imports, which constitutes an unreliable and often nutritionally poor source of food. Recent urban development and migration has also increased resource exploitation for commercial purposes (e.g. supplying dried fish to urban areas) in urban centres such as South Tarawa that has impacted even the distant rural communities. For example, many outer islands supply fish to Tarawa either through regular markets or grey/familial markets. Within this overall context, near shore shallow water habitats have degraded significantly including through drivers such as overexploitation of coastal resources in many of the islands. Though there are no clear statistics, anecdotal evidence indicates that coastal fisheries, a vital source of protein and nutrition, are severely impacted in many areas including the pilot sites.

In Kiribati, land and marine ecosystems are intrinsically linked. The poor state of coastal resources is also often connected with ongoing land degradation, pollution, and other related factors (ease of access, inappropriate use of technology, limited opportunities for alternative / innovative harvesting techniques). Removal of mangroves has resulted in a deterioration of coastal habitats (for example: mangroves are an integral part of nutrient recycling, act as nursery / grow out grounds for fish and shellfish populations) compromising ecosystem resilience. Fires and land clearing for planting of coconuts, encroachment of invasive species (such as *Pluchea spp.*) have severely degraded land in the country and specifically in the pilot sites. Given the limited land productivity, the accelerated degradation has further dented the opportunities to increase benefits from local food production through agroforestry initiatives. A key behavioural factor in resource depletion and habitat degradation is the lack of community ownership / engagement in management decision making processes and as a result limited empathy with consequences associated with poor farming and fishing practices. This, coupled with limited opportunities for livelihood diversification fuels the continued decline readily accessible natural resource areas.

Climate change

As an atoll nation and a least developed country, Kiribati is extremely vulnerable to climate change. The pattern of global climate change is expected to impact Kiribati in several ways. In the near and long term, the projections include high variability in rainfall patterns, sea surface temperature increase, sea level rise, and ocean acidification. These trends will affect the integrity of all the island ecosystems and also exacerbate the effects of natural disasters. Freshwater resources are already scarce making an increase in variability of rainfall from climate change a further difficulty for agriculture and agroforestry contributing to problems in terms of resilience. It is essential for the country to build resilience (of both ecosystems and local populations) to climate change impacts including climate variability. Furthermore, climate change is expected to directly affect fisheries through changes in abundance and availability of oceanic species such as tuna and associated species in the exclusive economic zone of Kiribati while coastal fisheries are expected to decline due to higher sea surface temperature, coral bleaching and other effects such as changes to habitats and natural mortality.

The Government of Kiribati is fully aware of their nation's tenuous situation and some progress is being made. However, significant conservation and sustainable resource utilization challenges remain. If the nation hopes to build social and ecological resilience in the face of climate change, tangible benefits could be derived through establishing and implementing an informed regulatory and decision making co-management framework to conserve coastal zone resources while at the same time allowing sustainable harvests of natural resources. The approach must be centred within communities through an ecosystem approach and reflect I-Kiribati's reliance upon limited island resources for survival. The strategic and informed management system would benefit from implementing a "whole island approach". To enhance resilience, the current unsustainable lagoon and near shore overexploitation practices require transitioning to more effectively regulated and informed access regimes. Similarly, critically important habitats and species of highest ecological value need added protection and the country would benefit from taking steps to re-enforce their system of national, island-based protected areas.

1.2.2 Baseline projects and investments for the next 3-5 years addressing the global environment problem and causes (main co-financing sources of the project)

GEF incremental investment will be firmly rooted in baseline investments in communities, their capacity development and participation in management and decision making processes through involvement in government programmes and activities aimed at improving sustainable use, conservation and management of marine and land resources, and increasing community resilience to climate change. Key Ministries associated with these processes include;

- a. Ministry of Environment Lands and Agriculture (MELAD)
- b. Ministry of Fisheries and Marine Resources Development (MFMRD)
- c. Ministry of Internal Affairs (MIA)

Ministry of Environment Lands and Agriculture (MELAD)

The MELAD is divided into three divisions; Land Management (LMD), Environment and Conservation (ECD), and Agriculture and Livestock (ALD). LMD works primarily to resolve land conflicts and enforce existing (often outdated) land use ordinances. ECD's work focuses on raising awareness on key environmental problems and issues including water and pollution, and supporting regulatory coherence under the KIEP. ECD's work on increasing knowledge and experience base for creating a national network of PAs, for improved conservation of biological resources of the country, would be leveraged for GEF incremental investment.

ALD, following up on the Agriculture and Livestock Department Development Strategy (2012-2015), carries out extension and support services through its agricultural assistants (extension officers). It covers a) pig and poultry breeding, multiplication and distribution support service b) development and conservation of locally adapted breeds of livestock c) agroforestry production systems trials (e.g. combining local chickens with trees/crops like coconuts, pandanus tree, etc., temporary pig pens under trees and ducks raised under tree crops). Previously, ALD has also carried out agroforestry activities based on combining coconuts, breadfruit, bananas and native figs with livestock. In terms of managing forest resources, ALD undertakes activities to preserve and manage native tree species, specifically Pandanus tree, and mangroves. The forest management and agroforestry activities carried out by ALD will be leveraged for the GEF incremental investment.

In addition to the above, PIPA is supported by MELAD and has a separate management unit established under a specific regulation mandated for the Phoenix Island Protected Area. PIPA establishment and management is governed by this regulation. The processes, guidelines, methodologies and capacity generated by the PIPA serve as a basis from which a national network of protected areas can be developed. Management is to be carried out according to a four-year management plan (currently under preparation). There is a management committee that consists mostly of representatives of government agencies and a trust fund that will provide ongoing support to PIPA. Research is supported by a number of international organizations that serve on the PIPA Scientific Advisory Committee coordinated by the New England Aquarium. PIPA has benefited from surveys conducted by research partners including data gathering on fisheries, currents, coral, carbon pathways, etc.

Ministry of Fisheries and Marine Resources Development (MFMRD)

The MFMRD with its mandate for fisheries and marine resources governance and management in Kiribati, carries out extensive work on development and management of fisheries resources from 3 nm miles out to the exclusive economic zone limit with Island Councils being responsible for the waters inside the 3 nm zone. MFMRD has five divisions: the Fisheries Division, the Resource Economics and Policy Division, the Mineral Resources Division, the Information Technology Division and the Accounts, Administration and Human Resources Division. In addition, the Kiribati Seafood Verification Agency (KSVA) sits within the Ministry and regulates and controls fish processing standards. With support from The Pacific Community (SPC) and AUSAID, all maritime boundaries in accordance with the provisions of the UN Convention on the Law of the Sea (UNCLOS) have been declared and deposited with the UN including territorial seas baselines, outer limits and EEZs. This information can be used to assist with mapping and defining community based fishery management and conservation areas.

The Ministry is guided by the National Fisheries Policy (2013 – 2025). The responsibilities of the Fisheries Division including both the Oceanic and Coastal Fisheries Branches range from licensing services, training and extension services for fishers (through fisheries assistants), enforcement of fisheries regulations, carrying out of surveys and stock assessments which feed into the information services provided by the Ministry, and local fisheries development services as well as support for boat building and mechanical units. MFMRD is increasingly promoting community-based management and co-management of marine resources through externally funded programs. This will be an important base of experience for the expansion of co-management of resources in the marine environment. All these activities will be leveraged for GEF incremental investment.

Ministry of Internal Affairs (MIA)

The MIA provides support to Island Councils in establishing governance arrangements in outer islands. This includes training on basic planning and management, support for the development of outer islands laws and regulations, and associated enforcement activities. MIA receives, appraises approved Island Council priority projects for Government or Donor funding and provides annual support grants to support their budget. MIA has a specialised Local Government Division that provides training support to Council Staff, Mayors and Councillors. These activities would be leveraged for GEF incremental investment, specifically on local level governance related activities (though we do not have an official Cofinancing letter).

Other key co-financing investments and contributions are as follows.

FAO Technical Cooperation Programme- Strengthening capacity in integrated home gardening and food processing for enhanced food and nutrition security in Kiribati

The project will run from March 2017 to February 2019. The project aims to increase local agriculture production of farm households and schools in Marakei, Maiana, Onotoa and Makini through the following four key outputs;

- a) *Agriculture & Livestock Department (ALD) support services strengthened.* Major focus will include upgrading of centralised Government nurseries supply of high quality planting materials; training for extension officers on improved sustainable integrated production and management technologies, and preparation of technical extension materials.
- b) *Capacity for families' home gardens and small livestock production enhanced.* Major focus will include conduct of farmer field school and pilot demonstrations with selected households on key aspects of home gardening and improve crops and fruit trees management; compost making and soil improvement practices; small scale poultry management and husbandry, and other climate smart farming practices.
- c) *Increased youth awareness on agriculture in schools.* Key activities will include revised school curriculum to include agriculture training, develop materials and strategy for delivery the trainings. Establishment of school garden pilot demonstration sites in 4 schools for training of students.
- d) *Improve nutrition awareness, food processing and preservation techniques developed:* This output will strengthen capacities for women on improve nutrition for households from home gardens, and enhance skills and knowledge on small scale food processing, preservation, and safe food handling, and cooking demonstrations.

The GEF project will leverage on all the above outputs and these outputs would form the key baseline for all agroforestry activities of the project (including awareness raising and capacity building for agroforestry, engagement of youth and women in livelihood improvement activities, establishment of gene bank of local species, improving extension services and establishment of agroforestry sites and value addition of products). The GEF project will build on these outputs and extend them to the project's pilot sites to ensure breaking down the barriers described below.

FAO Technical Cooperation Programme- Fish and food security in the outer islands of Kiribati – innovative techniques and co-management

The project is expected to run from 2020 to 2021. The project will focus on introducing innovative fishing techniques and co-management measures in the outer islands of Kiribati. The

specifics of the project will be developed keeping in mind the complementarity with this GEF project.

University of Wollongong

The University of Wollongong through the Australian National Centre for Ocean Resources and Security (ANCORS) has led implementation of an Australian Centre for International Agricultural Research (ACIAR) funded project ‘Improving Community-based Fisheries Management in Pacific island countries’ since 2012. The current phase ends in July 2017, and the project’s second phase is about to be approved by ACIAR. This second phase will run for four years, building on lessons learned in community engagement in Kiribati. The Kiribati work forms a node in an ambitious three country project implemented in collaboration with the Pacific Community, WorldFish and national agencies. The project’s overall objective is to develop and nurture the structures, processes and capacity to implement and sustain national programmes of Community-based Fisheries Management (CBFM). The project’s key outputs in Kiribati include;

- a) Situation analysis and CBFM rollout plan
- b) Scaling out a national CBFM model
- c) Implementation of inshore resource management plans in selected islands
- d) Building capacity in national institutions to better manage coastal fisheries

These outputs are directly linked to and would be leveraged for the community-based marine management measures to be planned and implemented as a part of the integrated land and marine management plans.

The Pacific Community (SPC)

SPC is beginning the implementation of a New Zealand Agency for International Development (NZAID) funded project titled ‘Improving fisheries food security and sustainable livelihoods for Pacific Island communities’. The project’s objective is ‘Food security and livelihoods in Pacific Island countries are improved through skilled staff and communities managing and enforcing robust policies and legislation for sustainable coastal fisheries and aquaculture’. The project’s outputs include;

- a) New or revised national legislation for coastal fisheries and aquaculture is drafted / progressed
- b) New or revised sub-national legislation for coastal fisheries and aquaculture is drafted / progressed
- c) Capacity development, training, and mentoring to national and subnational levels in policies and management plans
- d) Awareness raising materials on fisheries rules, regulations and penalties are developed and disseminated

The GEF project’s policy level work on mainstreaming Ridge-to-Reef (R2R) approach is directly linked to the major outputs of the above project. The ground work carried out by the above project would be leveraged for carrying out the review and revision of other relevant policies under Component 1.

1.2.3 Barriers to be addressed by the project

Despite the above investments and actions, certain critical barriers remain that obstruct improved conservation and sustainable management of coastal and land resources, and increased climate resilience in Kiribati. Current activities and investments in the country point towards the right direction, but fall short of addressing all the existing barriers. The key barriers to be addressed through GEF incremental investment are described below.

Barrier#1: Inadequate institutional framework and governance weaknesses

At present, in Kiribati, sectoral policies and plans are geared towards sustainable management of natural resources and improving climate resilience, but they adopt sectoral approaches and do not adequately incorporate the Whole-of-Island approach or R2R strategies, which is essential in terms of addressing the environmental challenges described above in an effective and holistic manner. This is also related to the fact that different ministries and line departments in the country often work in “silos” with very little sectoral coordination and integration. There is no cross sectoral coordination mechanism operating in the country. Lack of cross-sectoral coordination and mainstreaming of R2R approaches into sectoral policies and planning are significant institutional barriers.

Extensive research on vulnerability to climate change shows that it is the marginalized who suffer the impacts of changing environmental conditions. Managing natural resource systems with the added stresses associated with climate change poses a challenge for socio-ecological systems. And although not a panacea, community engagement is a means of reducing vulnerability to the natural hazards associated with climate change. Generally, natural resource utilization and conservation policies are prepared at the national level and implemented in a top-down fashion. Though the Island Councils are given certain responsibilities and they provide an avenue for outer island representation in national level processes, they are relatively new institutions and in the past engagement of local communities in planning processes have often been minimal and this has resulted in lack of true community ownership over resource conservation and management initiatives. This, coupled with the fact that the traditional governance systems and mechanisms have been breaking down, is a significant barrier to instituting long term environmental management. There have been funded initiatives (e.g. the ACIAR PacFish project described in section 1.2.2) to promote and implement community-based approaches in natural resource management, but more substantial efforts are essential to breakdown this governance barrier.

Barrier#2: Limited technical capacities and skills at all levels

MELAD’s total staff is approximately: ECD (40 staff), Land (60 staff), and Agriculture (100+). Approximately thirty MELAD staff are located at Kiritimati (Christmas) Island. These total also includes MELAD’s agricultural assistants (extension officers) located at approximately fifteen outer islands. While more than 80% have some level of professional training in environmental management, only seven staff currently hold masters degrees on environmental management. Two staff are currently pursuing doctorate level degrees. MFMRD has approximately 147 staff in total which includes MFMRD’s fisheries assistants (extension officers) located at approximately fifteen outer islands. While 60% have some level of professional training in environment/fisheries-related management, only 6 staff currently hold masters degrees on environmental management and only one MFMRD staff possesses a doctorate level degree. While the overall numbers of trained government personnel is high, the limited number of suitably qualified technical staff with extensive field experience, their limited access to remote islands and communities, and limited availability to technology and equipment for monitoring and surveillance of resources is a key factor that constrains successful mitigation approaches.

At the same time, farming and fishing communities have a wealth of traditional knowledge gleaned over decades and based on a clear association and understanding of changes occurring on land and sea. However, top down management approaches seldom allow for communities and natural resource providers to interact with resource managers and participate in decision making processes. This inability to connect community knowledge and experience with government resource managers and policy makers constrains the development of pragmatic management plans where ownership of decisions is shared and where there is a mutual respect for achieving successful outcomes from policy development and implementation.

Collectively, the considerable technical knowledge and capacity in areas related to marine and land resource conservation and management across government agencies and within communities has potential to be used in implementing effective management approaches. However, there are gaps in skills and opportunity to engage local stakeholders and promote community-driven approaches. Extension staff of both ministries, located in outer islands, lack technical capacities in key areas relevant to improving local level resource management and livelihood improvement. Extension staff of MELAD have knowledge gaps in tree crop re-planting, agroforestry combinations, and measures for assisted natural regeneration of forests. MFMRD's extension staff have knowledge gaps in value addition, co-management skills and post-harvest preservation techniques. With the capacity gaps at the local extension staff level, technical assistance provided to the local communities have been inadequate, this has resulted in gaps in technical skills of local communities to undertake agroforestry, forest management and marine management measures.

Barrier#3: Limited alternative livelihoods and economic opportunities

The need to create alternative livelihoods and new economic opportunities is a key priority for the government of Kiribati. It is driven by extremely high numbers of persons currently unemployed. The 2010 Population Census showed that overall, unemployment was 31 per cent while youth unemployment was 54 per cent (62% young women and 48 % young men). However, local communities in Kiribati, especially in outer islands, have few opportunities to diversify or improve their existing livelihoods especially in the outer islands given their remoteness and poorly linked to markets and support services. This aspect in combination with the above barriers result in increasing pressures being placed on natural resources in the near shore and resulting in over or unsustainable resource exploitation and habitat degradation, and increased vulnerability to climate change. While resources exist further offshore in deep water and could contribute towards effort reduction and recovery of near shore areas, limited access to technology, finance and training remain barriers. Under such conditions, the capacity of I-Kiribati to adapt, reorganize, and evolve into more resilient communities that are able to derive sustainable livelihoods from natural resource exploitation and being better prepared for future climate change impacts is in jeopardy.

1.3 THE GEF ALTERNATIVE

1.3.1 Project strategy

The GEF incremental investment will build on and complement baseline and co-financing projects/initiatives to mainstream and implement R2R approach to achieve the twin impacts of global environmental benefits and increased local resilience to climate change.

Policy assessment and revision work is being carried out with regards to coastal fisheries and aquaculture, the GEF grant will extend this to policies relevant to management of land based resources, and ensure these policies integrate R2R approach. This project will also establish a national level coordination mechanism for cross-sectoral coordination. Advocacy, awareness raising and capacity building activities for conservation and sustainable use of natural resources are ongoing, GEF grant will build on this at both national and island levels, among all relevant stakeholders, to promote and implement R2R approach.

There are ongoing efforts to promote community-based fisheries management and agroforestry in the country, this includes technical training, creation of relevant facilities/infrastructure and pilot demonstrations. GEF grant will build on this to develop integrated marine and land management plans, and implement them, to ensure that the island ecosystems are managed as a whole (from Ridge to Reef).

This project is part of the Pacific Islands Ridge-to-Reef National Priorities “Integrated Water, Land, Forest and Coastal Management to Preserve Biodiversity, Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods” (R2R Programme) and will collaborate closely with the other projects in the programme, and particularly the regional project “Testing the Integration of Water, Land, Forest & Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods in Pacific Island Countries.” Experiences and lessons learned will be shared with the other countries/projects participating in the programme through the UNDP R2R umbrella project. This will include linkages to regional knowledge portals and meetings. The project will also endeavour to capture and transfer the lessons learnt through the parent R2R programme.

1.3.2 Project objectives, outcomes and outputs

The project aims to improve biodiversity conservation and landscape level management to enhance socio-ecological resilience to climate variability and change. To achieve this goal, the project is structured in three components, as described below.

Component 1: Enabling environment for R2R conservation and sustainable use

To remove barriers 1 and 2, the project, through this component targets the strengthening of an enabling environment by; revision of policies and sectoral plans to mainstream R2R, improved cross-sectoral coordination, streamlining of resilience and socio-ecological planning for R2R strategies and improved capacities, educational programming and awareness at all levels for R2R implementation.

GEF incremental financing of USD 723 500 will be invested in: i) technical assistance for reviewing and revising policies and sectoral plans to mainstream an R2R approach; ii) technical assistance for establish a cross-sectoral decision making mechanism; iii) technical assistance for streamlining resilience and socio-ecological planning; and iv) community outreach programmes, training programmes, school curriculum development and R2R Masters programme.

Cofinancing for Component 1 comprises of awareness raising and knowledge development activities carried out for agroforestry and marine management related training initiatives and materials, conservation of biological resources and the updating and revision of policies and legislation related to coastal resources and aquaculture. MELAD will contribute USD 500 000. MFMRD will contribute USD 1 000 000. SPC will contribute USD 152 000. Univ. of

Wollongong will contribute USD 140 000. FAO through its TCPs will contribute USD 150 000.

Outcome 1.1. Enabling environment improved for ecosystem-based sustainable use and conservation of island resources

Indicator: Under LD3 (tracking tool) Capacity strengthening to enhance cross-sector enabling environment score moved from 2 to 3. Under LD3 (tracking tool) Framework strengthening INRM score moved from 1 to 3.

Output 1.1.1 R2R concept mainstreamed into sectoral development priorities and policies with an emphasis on protecting and developing livelihoods

During PY1, existing sectoral planning documents, legal frameworks, priorities and policies will be reviewed to identify entry points for mainstreaming an R2R approach for mainstreaming in at least in three policies, priorities or frameworks. This process will be supported by expert consultants as well as listening sessions to facilitate a participatory approach to review of policies to ensure that such revisions lead to practical policies and priority setting that meets needs of outer islands and local communities. In addition, a potential sub-strategy on PAs network will be reviewed developed as a supplement to the related policies.

In PY2, the identified policies and sectoral documents will be formally revised integrating an R2R approach.

Output 1.1.2 National level coordination mechanism developed for cross-sectoral decision-making (including on PAs)

Under this output, a cross-sectoral coordination and decision making mechanism will be established. This mechanism will ensure that the sectoral partners do not work in silos and come together to make key decisions and plans in the context of R2R implementation.

During PY1, the PMU with support from the expert consultants recruited under Output 1.1.1 will analyze existing cross-sectoral coordination avenues, review the functions of all relevant Ministries and conduct stakeholder consultations at both national and island levels in the context of developing a new cross sectoral coordination mechanism. Based on the consultations, during PY2, detailed terms of reference will be developed for the mechanism (clearly outlining the linkages to the island councils) and the mechanism will be formally operationalized for the purpose of future sustainability.

Output 1.1.3 Resilience and socio-ecological planning for national to island-level coordination mechanism on whole-of-Island based R2R conservation and sustainable-use strategies streamlined across national and islands levels

This output will provide the socio-ecological basis/ground work to the cross-sectoral coordination mechanism established under Output 1.1.2 to make decisions on R2R strategies (development and implementation).

During PY1, extensive consultations will be conducted with Island Councils, communities and key government stakeholders to streamline, and if applicable, develop indicators to measure resilience at the island level using vulnerability assessment methodologies as well as established resilience indicators from project partners. These indicators will be subsequently used to measure the impact of this project in improving the resilience of the targeted local communities, in addition to being a standard set of resilience indicators to be utilized later. A community participation model will also be developed, specifically focusing on effectively

engaging youth and women, this model will form the basis for creating community groups for developing and implementing the integrated land and marine management plans under Component 2. In conjunction with the development of this model, impacts of R2R strategies on resource access and socio-cultural aspects will be thoroughly analyzed and mitigation options will be identified for adverse impacts, if any.

During PY2, through consultations with island councils, whole-of-island R2R strategies will be developed and adopted. These strategies will guide the design of integrated land and marine management plans both in this project and beyond this project, in the respective islands.

Output 1.1.4 National and island level environmental education, community outreach and extension program developed

R2R Masters program: During PY1, two students will be identified to be enrolled onto the R2R Masters program. This will involve development of a list of criteria for the selection process and recruitment including the application of skills gained back into project activities or sites.

School curricula: During PY1, existing school curricula and related projects will be assessed and an integrated model for curricula on R2R related resource conservation and management issues will be designed. Consultations will be conducted with relevant govt. institutions and schools for developing new curricula and subsequent training and materials will be provided. In PY2, based on the consultations conducted and assessments done, new curricula will be developed and introduced in nine schools. Utilization of the curricula will be monitored during PY3 and PY4. At least nine schools will be targeted

Community outreach programme: During PY1, outreach and awareness raising materials on R2R approach including community-based management approaches will be developed. These materials will include videos, radio programs, posters and. A workshop on awareness building approaches and strategies and associated required knowledge products will be conducted with project partners to identify needs. In PY2, the outreach programme will be implemented through the island councils and local community based organizations and institutions (e.g. local church). The outreach programme will be sustained until PY4. At least 30 communities will be targeted for community outreach programme

Training programme: The training programme under this component will target extension and other technical support staff of MELAD and MFMRD. The training will take place at national level and will also include staff not directly working on the project sites. At least 25 staff will be trained. The trainings will be extensive, building on capacity building activities conducted by co-financing partners, to facilitate implementation of communities identified actions. Trainings topics will be dependent on priorities in the whole-of-island strategy and will cover, *inter alia*, community-based fisheries management processes; developing and enforcing marine management measures; alternative fishing methods and gear use; fisheries survey techniques; protected area management and planning; mangrove restoration; assisted natural regeneration techniques (e.g. unblocking natural waterborne seed flow), seedling management and planting (e.g. taking into account substrate height, water flow and appropriate species for the location), etc. and agroforestry; tree/crop choice and planting arrangements, soil and water conservation/management techniques, value addition techniques, etc. In addition, a recognition program and certificate for CBFM will be developed for communities. In PY1, the training programme will be designed and the trainings will be carried out in PY2 and PY3.

COMPONENT 2: Implementation of R2R conservation and sustainable use strategies

This component will address Barriers 2 and 3. The GEF incremental financing for the component will be USD 3 295 422. Through this component, the project will implement R2R strategies through preparation and implementation of three integrated land and marine management plans.

Cofinancing for Component 2 comprises of community mobilization, on the ground mangrove restoration and agroforestry activities, community-based fisheries management measures and agroforestry/fisheries related infrastructure. MELAD will contribute USD 5 000 000. MFMRD will contribute USD 4 600 000. Univ. of Wollongong will contribute USD 200 000. FAO TCPs will contribute USD 300 000.

Outcome 2.1 National management system for ecosystem-based sustainable use and conservation of island resources established to deliver SFM, LD, and BD benefits

Indicator: 23 496 hectares (including three new PAs) covered by integrated natural resource management (land and marine) practices in wider landscape.

Output 2.1.1 R2R conservation and sustainable use strategies initiated in at least three islands aquatic and terrestrial ecosystems

During PY2, integrated land and sea planning and island level priority setting workshops will be conducted to develop detailed plans and assessments based on the whole-of-island approach. These workshops will primarily establish direction in terms of land and marine area use, including potential sites for new PAs. Once the resource utilization and management techniques are identified, discussions will be conducted and consensus will be developed within target communities (under Output 2.1.2 and 2.1.3) on implementing priorities as a part of management plan or action plans (to be prepared subsequently). This will include identification of specific low-impact coastal fishing, agroforestry and mangrove restoration techniques. Identification of these techniques will take into account the analyses conducted under Output 1.1.3 with regards to resource access and socio-ecological perspective and under Output 2.1.2 (refer below) for improved livelihood opportunities. It should be noted that the PAs will also fall under the integrated land and marine management plans, but would have individual PA management plans (refer below).

In the latter part of PY2, at least three integrated land and marine management plans will be developed, covering i) establishment of three new PAs; ii) implementation of marine management measures (coastal); iii) implementation of mangrove restoration and agroforestry; and iv) livelihood improvement activities as integral part of resource management practices. The plans will also be thoroughly assessed for any complementary links to existing activities on the ground to maximize synergy.

In PY3, a local level monitoring programme will be established to monitor the progress of the implementation plans and associated actions, the programme would be devised in a manner to utilize community involvement and ownership, and rely on local level information sources. The monitoring programme will be linked to the national level cross-sectoral coordination mechanism (Output 1.1.2), providing ground level feedback for future decision making on R2R related issues, *and importantly, the resilience indicators developed/compiled under Output 1.1.3.*

Output 2.1.2 Expanded and complementary livelihoods developed as a part of the plans developed under Output 2.1.1

Though this output is primarily integrated into the management plans prepared under Output 2.1.2, it is essential to design activities directly supporting households to utilize opportunities

to improve their livelihoods. As early as PY1, analysis will be conducted to identify the potential for local households to adopt livelihood strategies that can be a part of the integrated management plans prepared. Once the management plans are prepared, in PY2, they will be reviewed to ensure they do not have any adverse impacts on local level food security (this is in addition to overall analysis of R2R strategies for socio-ecological and resource access impacts). After the analysis, specific livelihood activities will be identified (that are part of resource management practices) and 350 households will be assisted to adopt the activities. The support will be mainly extended in the context of changing harvester/producer practices, new harvester/producer strategies and products, value addition and marketing of products (e.g. post-harvest processing).

Output 2.1.3 R2R conservation and use strategies across land and sea implemented at three target islands (through the integrated plans)

This output will primarily implement the resource management techniques identified and agreed under Output 2.1.1. In PY2, community groups will be formed, where they already exist further support will be provided to them (engagement with the groups will be following the community participation model developed under Output 1.1.3).

Agroforestry production: In PY3, ethnobotanic surveys (the last survey was conducted more than a decade ago) will be conducted to establish gene banks and corresponding local level nursery stations (at least 3) for native species. 414 ha of agroforestry sites will be established. This will include rehabilitation of coconut, combining this with vegetable gardening and livestock (chicken) production. Sites will also use alley cropping patterns combining pandanus, fruit trees (e.g. banana), vegetable gardening and livestock. Selection of sites and practices will take into account the hydrological state and flows, soil conditions and species compatibility as well as interventions through other projects and partners that facilitate improved water access and quality. In PY4, another 414 ha of agroforestry sites will be established.

Mangrove restoration and forest rehabilitation: In PY3, 100 ha of natural woodland and shrubs will be managed through assisted natural regeneration and protection, this includes management and clearance of invasive species. In addition, in PY3 82 ha of mangroves will be restored through planting and assisted natural regeneration. In PY4, further 50 ha of natural woodland will be added under natural generation and protection.

Marine management and development measures: In PY1, sites for expanded or new development of a community-based management of fisheries approach will be identified based on the management plans as well as partner project interventions and existing village requests. Communities will be supported to, as identified in the management plans, implement spatial management measures in lagoons and reefs (linked to 2.1.4), undertake changes in fishing practices and gears, and develop new conservation and management measures. Site specific information and data on fishing practices, grounds and fleets will be gathered during PY1 and PY2 based on the identified priorities.

Output 2.1.4 At least three PAs established

Under this output, three new PAs will be established over 22 417 ha. The PAs will be established as identified under Output 2.1.1. In PY3, cooperative management agreements will be drafted and signed. The PAs will be formally recognized, management plans prepared and implemented from PY3. The PAs will cover reef, lagoon and possibly land areas of the target islands.

COMPONENT 3: Lessons learning and sharing

GEF incremental resources of USD 476 345 will be utilized under the component to ensure that; i) the project implementation is effective and efficient, and is based on result-based management principles; and ii) project findings and lessons learnt are captured and disseminated for future initiatives.

Cofinancing for Component 3 comprises activities related to gathering information for the evaluation of the results achieved by the project and dissemination of information and lessons learnt through the project. MELAD will contribute USD 500 000. MFMRD will contribute USD 400 000. SPC will contribute USD 10 000. Univ. of Wollongong will contribute USD 38 000. FAO TCPs will contribute USD 100 000.

Outcome 3.1: Project implementation based on results based management and application and sharing of project findings and lessons learned

Indicator: Project M&E system designed, established and applied throughout the project and across all components, provinces and project sites; Successful sharing of lessons learnt across the region

Output 3.1.1: Monitoring, evaluation and reporting plan and system for the project established and operational

During PY 1, the project will hire a Monitoring and Evaluation (M&E) System Expert to advise the Project Management Unit (PMU) in the design and establishment of an M&E system to obtain information on progress in meeting targets, evaluating results and facilitating the systematization of experiences. In the first three months of the project, the M&E program will be complimented by the collection of information and establishment of the project socioeconomic and biophysical baseline. Throughout the duration of the project, monitoring reports will be prepared according to the M&E system. During PY3, mid-term evaluation/review, and at the end of PY5, end of project evaluation will be conducted. Both evaluations will be conducted by experts selected by FAO with the approval of the PSC. In addition, a critical part of project M&E would be the listening sessions conducted as part of yearly PSC meeting. These listening sessions will provide the forum for island /community level stakeholders to communicate their concerns on the project directly to the PSC.

Output 3.1.2 Project related 'knowledge' captured and shared

This output will ensure that the project experiences are captured and shared through knowledge products and communications. In PY1, a communication strategy will be developed and to raise visibility of the project awareness materials will be identified and developed (e.g. posters, radio slots, etc.). From end of PY1, an annual project newsletter will be produced every year. The PMU will facilitate information collection by coordinating with all the executing and other partners. At the end of the project (PY5), as a part of the terminal workshop, the key lessons learnt and the experiences gathered through the project will be shared, and a project publication will be produced to facilitate wider dissemination. In addition, to ensure lessons learnt and experiences are transferred to the parent R2R programme, participation will be ensured in R2R cross-country knowledge sharing events.

The project will also invest in information sharing at a regional level, within the framework of the multi-focal peer-to-peer scientific and technical network for knowledge sharing and training (PacIW: LEARN) to be established through the regional R2R programme, and in accordance with Objective 3 of the GEF International Waters focal area on support to foundational capacity building, portfolio learning, and targeted research needs. This will build on the baseline

PacIWRM project's successful delivery of distance learning and twinning for IWRM capacity development.

1.3.3 Project Stakeholders

Based on consultations during the project preparation and feedback received in the inception and terminal workshops, below table has been compiled providing an overview of different project stakeholders and their roles.

Roles and responsibilities of stakeholders

Stakeholder	Role/Relevance
Government	
Ministry of Environment, Lands and Agricultural Development (MELAD)	<p>Main executing partner.</p> <p>MELAD is responsible for National Environment, Lands and Agriculture and through the Environment and Conservation Division (ECD) is the political Focal Point of the GEF through the Secretary and the Director of ECD is the Operational Focal Point. This agency is responsible for environment, lands and agricultural policy development, implementation and monitoring/evaluation. The Environment Act 1999 as amended in 2007 provides the legislative basis for the exercise of MELAD's environmental functions.</p>
Ministry of Fisheries and Marine Resources Development (MFMRD)	<p>Main executing partner.</p> <p>MFMRD is responsible for National Marine and Fisheries policies development, implementation and monitoring and evaluation. Through the Fisheries Act 2010, MFMRD is tasked to promote sustainable management of fisheries and the development and use of fisheries resources for the benefit of Kiribati including the recovery of fees that reflect the value of resource and, to protect the fish stocks and marine environment of Kiribati. Based on this Act, the Kiribati National Fisheries Policy 2013-2025 has been developed with aims that portray short to medium and long-term strategic objectives that will enhance responsible fisheries with emphasis on the need to support, improve and sustain the peoples' livelihood, food security and sustainable economic growth.</p>
Ministry of Internal Affairs (MIA)	<p>Key partner in implementation.</p> <p>The MIA is responsible for Local Government and outer island development and manages the Local Government Act that governs the Island Councils functions and operations. MIA provides link between Government and other organizations with the Island Councils through its Local Government Division and its staff including the Island Council Clerk, Island Project Officer and the Treasurer serving the Island Councils. MIA will act as a key link between the project and the Island Councils.</p>
Ministry of Finance and Economic Development	<p>Key government stakeholder in implementation.</p> <p>The Ministry of Finance and Economic Development is responsible for national planning and budgeting. Funds for the project will be disbursed to PMU through the Kiribati Fiduciary Steering Unit established within the Ministry to handle large project funds and following Government Financial Regulations and Procedures.</p>

Stakeholder	Role/Relevance
Ministry for Education	<p>Key government partner in implementation.</p> <p>The Ministry for Education has an important national role for education and to promote and relevant curricula work to assist. It is responsible for preschool, primary, secondary, tertiary and also runs a teachers' training institution where teachers are trained to become teachers at both primary and secondary school levels.</p>
Island Councils	<p>Key partner in implementation</p> <p>Island Councils are responsible for the development, administration and management of their island affairs assisted by Government through the MIA. Their involvement is important to ensure facilitation role for any undertaking or project. The Local Government Act governs functions and operations. Island Councils have individual by-laws that largely guide their business and operation. They oversee, lay out rules and procedures for how domestic affairs, business operators and licensing, development are managed. Island councils have discretionary power through issuing licenses for business development and setting prices and charges such as bus fares (KILGA 2013), fish sales prices in the local market.</p>
Ministry of Communication, Transport and Tourism Development	<p>Key government partner in implementation.</p> <p>The Tourism Division of the Ministry of Communication, Transport and Tourism Development monitors tourism-based fishery projects. The Ministry is responsible for international and local shipping policies and laws as well as aviation. Under the Kiribati Development Plan (2012 - 2015), Government aims to improve communication infrastructure on the outer islands to encourage eco-tourism.</p>
Kiribati National Expert Group on Climate Change and Disaster Risk Management (KNEG)	<p>Key government partner in implementation.</p> <p>The development of the KJIP led to the establishment of a Kiribati National Expert Group on Climate Change and Disaster Risk Management (KNEG), encompassing experts from core and line ministries, NGOs, the Kiribati Chamber of Commerce and Industries and other non-state actors. Acts as a coordination mechanism for climate change and disaster risk management initiatives.</p> <p>It plays an overall steering function for the design, implementation and monitoring of climate change and disaster risk management initiatives and also form sub-steering groups for sector-specific measures or integrated approaches targeting outer islands and community level (such as the Whole of Island Approach - WOI). It is the entry point for new initiatives.</p>
<i>International Development Organizations</i>	
The Pacific Community (SPC)	Co-financing partner as explained above
Secretariat of the Pacific Regional Environment Programme (SPREP)	Executing partner.
United Nations Development Programme (UNDP)	UNDP is the implementing agency for a LDCF project in Kiribati. Strong coordination with the project will ensure maximum synergy.
<i>Civil Society (NGO's, etc.)</i>	
Kiribati Climate Action Network	KIRICAN is an NGO doing community activities to promote awareness on Climate Change and has worked with the '350' Climate Action Network. Youth largely comprise membership of

Stakeholder	Role/Relevance
	the Kiribati Climate Action Network. KIRICAN will be a key partner in outreach and awareness raising activities.
Kiribati National Council of Churches	Kiribati is a deeply religious country and the Churches of different denominations and church groups under them at community level are active in community planning and implementation. They will also be involved in relevant awareness raising and implementation actions.
Church-based Women Organizations	Church-based Women Groups are very active organizations in the communities and through which important messages can be effectively transmitted. They provide marketing assistance to their Women Members in Outer Islands. They will play a key role in engagement of women in the project.
Aia mwaea ainen Kiribati (AMAK)	AMAK is the umbrella Women Organization for Kiribati and provides training support to its members, serves as a link between Government and its Women Organization members, coordination role for relevant programs. It exists to promote the interest of women enabling and empowering them. Key partner at national level providing inputs and insights into gender issues relevant to the project.
Live & Learn	Live & Learn is heavily involved with community mainly on agriculture for food security issues carrying out enabling and practical training programs. They have on-going activities on Outer Islands (Abaiang) and in Tarawa. The organization has lately expanded to include health related initiatives such as composting toilets.
<i>Academic and Scientific Organizations</i>	
University of Wollongong	Cofinancing partner
University of the South Pacific (USP) Centre	USP Centre is an academic institution operating university extension services for academic students. It also has vocational training programs for non-academic students. Key partner in education and curriculum related project activities.
<i>Local and Indigenous Communities</i>	
Village Elders and Leaders	At community level for each Island, there is a communal leadership system that strongly recognizes the powerful authority of 'unimane' (village male elders) who are the supreme authority for village level matters for the wellbeing of the members of the village. Most villages located on islands are led either by a group of village elders from amongst whom a Chairman is selected. The elders committee is a respected body on the Island whose decision is often respected. Their involvement through consultation throughout implementation is important to reinforce the support that village Councillor reps and the Mayor for the project.
Local communities	Main beneficiaries of the project and primary partners on the ground for the successful implementation of the project.
<i>Private Sector</i>	
Kiribati Coconut Products	The business provides Training on Virgin Coconut Oil (VCO) processing, and marketing services for VCO from outer islands in Tarawa. The business has established contact producers of the VCO on a number of the Outer Islands that supply the domestic market in Tarawa. VCO is a experiencing a growing interest and market in Tarawa - all that is produced are consumed locally. It has great potential for niche international markets.
Kiribati Fish Limited (KFL)	KFL is a joint venture of Foreign Company and Government of Kiribati that fish and buys fish from local fishermen in Tarawa to process and export tuna loins mainly. The Company currently also serves the domestic market and has potential for an outlet for Outer Island fresh fish and other marine products. Whist it currently selects the type of fish it buys, there is potential to market other types of fish through the Company.

1.3.4 Expected global environmental and adaptation benefits

The project through the integrated land and marine management plans, implemented across 23 477 ha, will generate the following Global Environment Benefits (GEBs):

- I. Improved biodiversity conservation, sustainable use and management in lagoons and nearshore areas through establishment and management of three PAs area (22 417 ha). The PAs would fall under IUCN category 6 ‘Protected area with sustainable use of natural resources’, and would be co-managed with local communities to ensure protection of key biodiversity, and sustainable and continued utilization of resources from the targeted ecosystems. Of the three PA sites Butaritari is the only island with all the four mangrove species. Tabituea and North Tarawa have recognized KBAs. These protected areas will cover coral reef areas including areas with corals listed in the IUCN Red List (72 across Kiribati). These PAs will also provide habitat for globally threatened corals and charismatic species such as endangered Green Turtles (*Chelonia mydas*), and Vulnerable species such as the Polkadot Cod (*Plectropomus areolatus*), Blacksaddled Coral grouper (*Plectropomus laevis*), and Giant clam (*Tridacna gigas*) (see section 1.1.7).
- II. Improved Sustainable Land Management at landscape covering the following;
 - a. Improved agricultural management (through agroforestry) - 828 ha. This will involve restoration of coconuts and native species that play a significant role in local food security (e.g. Pandanus). This will be facilitated through creation of gene banks for local species;
 - b. Improved forest management (mangroves and natural woodland)- 232 ha, including effective management of mangrove forests (166,630 tCO₂eq over 20 years-including 5 years of project implementation)

1.4 LESSONS LEARNED

Key lessons learned from prior initiatives and projects in the Pacific region that are reflected in project design include the following:

- A truly participatory approach is required that reaches from national level government officials to island level councils to communities.
- The social sustainability of initiatives affecting natural resource management and community organization is dependent on involving traditional authorities (national and island-specific councils) at all stages in the process, from formulation to implementation. Without their buy-in, resource management decisions at landscape/seascape level have limited validity, and policy influencing initiatives have limited credibility.
- At the same time, traditional authorities may not in all cases adequately take into account the interests of all community members, and it may therefore be necessary to establish complementary community-specific and gender-sensitive mechanisms to ensure adequate participation and representation of individual communities and marginalized stakeholders.
- While there is a high level of interest among stakeholders over much of the country in the establishment of protected areas, the effective implementation of controls on extractive activities can easily be undermined by the emergence of new food insecurities or marketing opportunities; it is therefore not sufficient to rely solely on expressions of

goodwill and commitment, but also to ensure that stakeholders have access to economic alternatives.

- The current tendency toward siloed sectoral work

Specifically within Kiribati, FAO has gained experience in working across sectors through an emergency recovery project covering agriculture and fisheries (“Emergency support to re-establish food security in Kiribati outer islands”/TCP/KIR/3503). Previous projects on establishment of agroforestry initiatives and community agriculture have also held lessons learned through consideration of sustainability in terms of community engagement and water scarcity.

FAO has extensive forestry experience in the region and is actively learning from work on ongoing projects such as the current GEF-FAO project on forestry and protected areas management in Fiji, Samoa, Vanuatu and Niue. As well as other R2R projects including in Tonga, Vanuatu and the Solomon Islands.

Within the area of fisheries, FAO has been working extensively on coastal and community-based fisheries in the region compiling lessons learned through reviews of ongoing community-based management initiatives. Key outcomes related to the importance of not just engaging communities from the outset but through continued feedback and adaptive management based on monitoring programs.

1.5 STRATEGIC ALIGNMENT

1.5.1 Consistency with national development goals and policies

The project is consistent with a range of national policies, goals and plans. Those goals and policies that are the most relevant are listed below.

The **Kiribati Development Plan (KDP) 2012–2015** is the overarching national development plan detailing national priorities (GoK 2012c). The KDP is linked to the Millennium Development Goals, the Pacific Plan and the Mauritius Strategy for Small Island Developing States (BPoA+10). The KDP has six broad key policy areas (KPA). The project is aligned with KPA 2 on economic growth and poverty reduction and KPA 4 on environment which also incorporates climate change.

The project adheres to the guidance of the **Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management 2014-2023 (KJIP)**. As party to the United Nations Framework Convention on Climate Change (UNFCCC; ratified in 1992). The Government sees the KJIP as its National Action Plan on climate change. The project is in specific alignment with a number of key strategies such as strengthening good governance, policies, strategies and legislation(1), increasing water and food security with integrated and sector-specific approaches and promoting healthy and resilient ecosystems (4), and delivering appropriate education, training and awareness programmes (7). The KJIP identifies the “Whole Island Approach” as a national priority; e.g., Develop and implement a program for community-based integrated vulnerability assessment, climate change adaptation and disaster risk management such as the Whole of Island Approach (WOI).

Kiribati's National Adaptation Programme of Action (January 2007) highlights Kiribati's vulnerability to climate change. It has noted the vulnerability of settlements, land and coastal areas to impacts of climate change due to the low lying nature of the atolls; and also the vulnerabilities of the fisheries sector; agriculture sector, water resources, physical assets, biodiversity and human health. This project will directly support priorities identified by the NAPA, including: Coral Reef Restoration, Monitoring and Stock; Agricultural Food Crops Development; and Coastal Zone Management and Resilience Enhancement for Adaptation. The NAPA notes that both marine and terrestrial sources of food security are important. The people of Kiribati depend very significantly upon marine resources for their household level food security while agriculture helps provide important food diversity.

The project is closely aligned with several platforms set forth in the **National Fisheries Policy (2013 – 2025)**. The project will particularly support the achievement of goals 2 – 5 as set out in this policy: 2. Protect and secure food security and sustainable livelihoods for I-Kiribati; 3. Ensure long-term conservation of fisheries and marine ecosystems; 4. Strengthen good governance with a particular focus on building the capacity of MFMRD to implement and support fisheries management, development, and monitoring, control and surveillance; and 5. Build climate change resilience for fisheries and marine resources in Kiribati. The policy also notes that lagoon and coastal fisheries currently provide sufficient protein for most I-Kiribati. The policy states that fisheries are under strain from population pressures compounded with climate change. The policy notes that the response to increasing lagoon fisheries pressure should be the management of overfishing in order to maintain sustainable levels.

The project is also in line with **the 2005 Kiribati National Biodiversity Strategy and Action Plan (K-NBSAP) and its associated Action Plan for Implementing the Convention on Biological Diversity's Programme of Work on Protected Areas (PoWPA)**. The Key Biodiversity Area (KBA) report, completed as part of the PoWPA phase II Project and awaiting Cabinet approval, identifies 22 KBAs, 14 of which are currently afforded little or no protection at all. The project will establish at least three Protected Areas based on the priorities set out in the KBA report, after extensive consultations with communities in and around the proposed sites. The project will also strive to mitigate risks to key threatened / endangered species in Kiribati and their locations as well as linking to the implementation of the NBSAP objectives.

The project also directly addresses a number of key targets laid out in the draft **Kiribati Integrated Environmental Policy 2012-2022 (KIEP)**, including integration of conservation in public education curriculum, customary rights and tenure integrated into protected area management plans, and increase the number of protected areas and protected species under effective management.

The project will build on, and be in line with, the **2007 National Action Plan (NAP)** to address Land Degradation and Droughts. Further, land degradation is identified in the KIEP as a priority issue, especially in urban areas, where population pressure is putting unsustainable pressure on limited land resources, and foreshore areas.

SFM in Kiribati is focused on improving coverage and management of mangrove forests, through a range of tools and approaches including integrated coastal management, protected areas, and locally-managed areas. This is consistent with, and directly responds to the Environment Act 1999 (as amended 2007) and the natural resources management policy areas of the KIEP, and builds on work under Kiribati Action Program in phase II and III. Kiribati does not currently have a national forestry policy or strategy, but a policy specific to mangroves

is reflected and integrated under the KIEP. Further, Kiribati has recently become a Party to the Ramsar Convention on Wetlands, and the project will assist the Government of Kiribati in meeting its requirements under that convention.

In addition, the proposal also highlights the links between the project and the following Aichi targets.

Relevant Aichi Target	Project Contribution
Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use	
<p>Target 6 By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.</p>	<p>This project specifically targets improved management of marine resources and will contribute to the sustainability of harvested resources in marine areas through facilitating the reduction of stressors and diversification of effort.</p>
<p>Target 7 By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.</p>	<p>This project specifically targets improved management of agricultural and forestry resources including restoration through agroforestry initiatives.</p>
<p>Target 10 By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.</p>	<p>The project will support the conservation of reefs and sustainable use of coastal systems for at least three Pacific islands. The project's amplification effect will reduce human pressures on coastal systems in the pilot sites.</p>
Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity	
<p>Target 13 By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.</p>	<p>The project will support nurseries for cultivation of important indigenous plant species for forestry to support reforestation, preservation of culturally important species and sustainable agroforestry initiatives.</p>
Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services	
<p>Target 14</p>	<p>The project will support the maintenance of ecosystem services on land and at sea that are</p>

Relevant Aichi Target	Project Contribution
By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	highly valuable to all I-Kiribati, including women and women headed households.

1.5.2 Consistency with GEF focal area and GEF projects

This project is part of the programme “R2R Pacific Islands Ridge-to-Reef National Priorities – Integrated Water, Land, Forest and Coastal Management to Preserve Biodiversity, Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods” (R2R Programme).

The project’s alignment with the corresponding focal areas is explained below:

Focal Area Objective	Alignment
BD Objective 1	The project would establish three new PAs covering key ecosystems in three islands, creating a national PA network. Community-level consensus, ownership and capacities will be generated to ensure effective management of the created PAs. Policy and institutional environment relevant to PAs management will be strengthened as well.
IW Objective 3	The project will implement on-the-ground integrated actions in fisheries and coastal habitats, and will be directly linked to the Regional R2R programme. The project will contribute to achieving the GEF International Waters focal area objective 3 Support Foundational Capacity Building, Portfolio Learning, and Targeted Research Needs for Ecosystem-based, Joint Management of Transboundary Water Systems. Integrated coastal planning and management activities will assist to rebuild coastal fish stocks and protecting and rejuvenate mangrove forests by reducing pressure on these resources. Project activities will serve to demonstrate the value of an integrated approach to coastal management in atoll island systems. The project will also assist in enhancing local and national capacities both via this project and regionally through the umbrella Ridge-to-Reef regional initiative, and will link to the regional “Testing the integration of Water, Land Forest and Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihood's in Pacific Island Countries” project.
LD Objective 3	The project will build the groundwork and take actions to prepare and implement three integrated land and marine management plans. The plans will cover coastal lagoon and reef area, agricultural and forest area in the targeted islands. The integrated

	approach will systematically reduce pressure on competing land uses in the island ecosystems.
SFM Objective 1	The project will work on mangrove and natural woodland restoration and improved management. This will include assisted natural regeneration, forest protection and planting.

UNDP/GEF project 5414: “Enhancing national food security in the context of global climate change.”

This project will work in full cooperation and coordination with the UNDP/GEF project: “Enhancing national food security in the context of global climate change.” The five-year LDCF project is fully approved and has commenced implementation. The total project budget is approximately US\$ 4.5 million with an additional US\$ 7 million in co-financing. The objective is to build the adaptive capacity of vulnerable Kiribati communities to ensure food security under conditions of climate change. Under Component One, the project will assist Kiribati to address urgent institutional capacity building needs primarily on the national level. This will include helping to set in place an improved regulatory environment, strengthened institutional planning and policy frameworks, and generation of data required to support informed decision-making. Under Component Two, the project will assist Kiribati to address climate change vulnerabilities by implementing and demonstrating community-based adaptation measures.

By aligning these projects, the Government of Kiribati hopes to build conservation momentum and synergy across at least seven pilot sites. The UNDP/LDCF project will target the following pilot islands: South Tarawa, Abemama, Nonouti, and Maiana. The UNDP/LDCF and this project are designed to generate synergies, stay within the project absorptive capacity of Kiribati, and to spread benefits/impacts across a wider selection of outer islands. This coordinated approach has been fully vetted and supported by the Government Kiribati, UNDP, and FAO.

1.5.3 Consistency with FAO’s Strategic Framework and Objectives

This project aligns well with the Strategic Objective 2 (SO2), ‘Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner’. Mainly, two Organizational Outcomes of SO2 below will be supported by the present project:

- Producers and natural resource managers adopt practices that increase and improve the provision of goods and services in agriculture, forestry and fisheries in a sustainable manner;
- Stakeholders in member countries strengthen governance –laws, policies and institutions needed to support in transitioning to sustainable agricultural systems.

The project is also aligned with the FAO Country Programme Framework (CPF), specifically the following outcomes:

- Strengthened national capacity for evidence-based policies and strategies to enhance food and nutrition security
- Increased availability, access and utilization of local food
- Strengthened capacity for environmental management and resilience

SECTION 2 – FEASIBILITY

2.1 ENVIRONMENTAL AND SOCIAL ASSESSMENT

This project conforms to FAO's pre-approved list of projects excluded from a detailed environmental and social assessment. The Environmental and Social Screening Checklist is attached in Appendix 5.

2.2 RISK MANAGEMENT

Project risks have been identified and analyzed during the preparation phase and mitigation measures have been incorporated into the design of the project (see the Risk Matrix in Appendix 4). With FAO support and supervision, the Project Steering Committee will be responsible for the management of such risks as well as the effective implementation of mitigation measures. A Monitoring and Evaluation (M&E) System will serve to monitor performance indicators and outputs, project risks and mitigation measures. The Project Steering Committee will also be responsible for monitoring the effectiveness of mitigation measures and adjusting mitigation strategies as needed, and to identify and manage any new risks that were not identified during the project's preparation, in collaboration with project partners.

The semi-annual Project Progress Reports (PPR) (see sub-section 3.5.3) are the main instrument for monitoring and risk management. PPRs include a section covering the systematic monitoring of risks and mitigation actions that were identified in previous PPRs. PPRs also include a section to identify new risks or risks that have yet to be addressed, their classification and mitigation actions, as well as those responsible for the monitoring of such risks and their estimated deadlines. FAO will monitor the project's risk management closely and will follow up as needed, lending support for the adjustment and implementation of mitigation strategies. Reports on the monitoring of risks and their classification will also be part of the Annual Project Implementation Review (PIR) prepared by FAO and submitted to the GEF secretariat (see sub-section 3.5.3).

2.2.1 Risks and mitigation measures

The table in Appendix 4 summarizes the risks that were identified and analyzed during the project's preparation phase, the probability of their occurrence and proposed mitigation measures. Due the rating of medium risk a mitigation plan will be developed during the project inception phase.

2.2.2 Analysis of fiduciary risks and mitigation measures (only for OPIM projects)

N/A

SECTION 3 – IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS

3.1 INSTITUTIONAL ARRANGEMENTS

In addition to FAO as a GEF agency, the main government institutions involved in the project are MELAD and MFMRD. The Ministries will play the lead roles in the execution of the project. FAO will sign a Government Cooperation Project (GCP) Agreement with MELAD. The GCP Agreement will outline the roles and responsibilities of the FAO and MELAD including legal aspects of collaboration such as responsibilities for facilitating inputs, copyrights among others. MELAD will be responsible for the day-to-day monitoring and ensuring the overall coordination of the project's implementation, as well as coordination and collaboration with partner institutions, local community organizations and other entities participating in the project. At the island level, Island Councils will play the role in coordinating field level activities and training in conjunction with the Chief Technical Advisor (CTA) and the National Project Coordinator (NPC).

The Project will also achieve a number of key outputs through letters of agreements (LoAs) that will be elaborated and signed between the FAO and collaborating partners (service providers). The LoAs will be administratively managed by the Budget Holder (FAO Sub-regional Coordinator). Funds received by the service providers under a LoA will be used to execute the project activities in conformity with FAO's rules and procedures. The respective LoAs are listed under the "Contracts" budget line of the project budget.

FAO and the executing partners will collaborate with the implementing agencies of other programs and projects in order to identify opportunities and mechanisms to facilitate synergies with other relevant GEF, as well as projects supported by other donors. This collaboration will include: (i) collaborative meetings to coordinate related activities and programs, (ii) informal communications between GEF agencies and other partners in implementing programs and projects; and (iii) exchange of information and outreach materials between projects.

3.2 IMPLEMENTATION ARRANGEMENTS

The Food and Agriculture Organization (FAO) is the GEF agency responsible for monitoring and providing technical backstopping during project implementation. Technical backstopping will be provided in coordination MELAD and MFMRD. FAO's role and responsibilities is described in sub-section 3.2.2 below.

Specifically, project implementation will take place through the **Project Steering Committee (PSC)**, which will have the role of overseeing and coordinating the project's planning and implementation. Sub-section 3.2.3 outlines the functions of the Project Steering Committee.

A **Project Management Unit (PMU)** will be created within MELAD, and comprised of a **Project Team (PT)** funded by the GEF. MELAD will be responsible for finding an appropriate space to house the PMU. The main function of the PT, following the guidelines of the Project Steering Committees (see 3.2.3 below), is to ensure the coordination and execution of the project through the effective implementation of the annual work plans and budgets (AWP/Bs). It will be composed of a Chief Technical Advisor, National Project Coordinator (full time), Operations Officer and Finance Officer (part time), and by specialist/expert consultants that will be hired for shorter periods.

Some key functions of the PMU are:

- Technically identify, plan, design and support all activities;

- Liaise with government agencies and regularly advocate on behalf of the project;
- Prepare the AWP/B and monitoring plan;
- Be responsible for day-to-day implementation of the project in line with the AWP;
- Ensure a results-based approach to project implementation, including maintaining a focus on project results and impacts as defined by the results framework indicators;
- Coordinate project interventions with other ongoing activities;
- Monitor project progress;
- Be responsible for the elaboration of FAO PPR and the annual PIR; and
- Facilitate and support the mid-term evaluation/review and final evaluation of the project.

The **Chief Technical Advisor (CTA)** will be in charge of daily project management and technical supervision including: (i) coordinating and closely monitoring the implementation of project activities; (ii) day-to-day management; (iii) coordination with related initiatives; (iv) ensuring a high level of collaboration among participating institutions and organizations at the national and local levels; (v) tracking the project's progress and ensuring timely delivery of inputs and outputs; (vi) implementing and managing the project's monitoring and communications plans; (vii) organizing annual project workshops and meetings to monitor progress and preparing the Annual Budget and Work Plan (AWP/B); (viii) submitting the PPR with the AWP/B to the Project Steering Committee and FAO; (ix) acting as Secretary of the Project Steering Committee; and (x) preparing the PIR, and supporting the organization of the mid-term evaluation/review and final evaluation.

Likewise, under FAO rules and procedures and in conformity with this project document and the AWP/B, the CTA will identify expenses and disbursements that should be requested to FAO for the timely execution of the project. The CTA will monitor, provide technical support and assess the reports and outputs of the project's national consultants (financed by GEF funds).

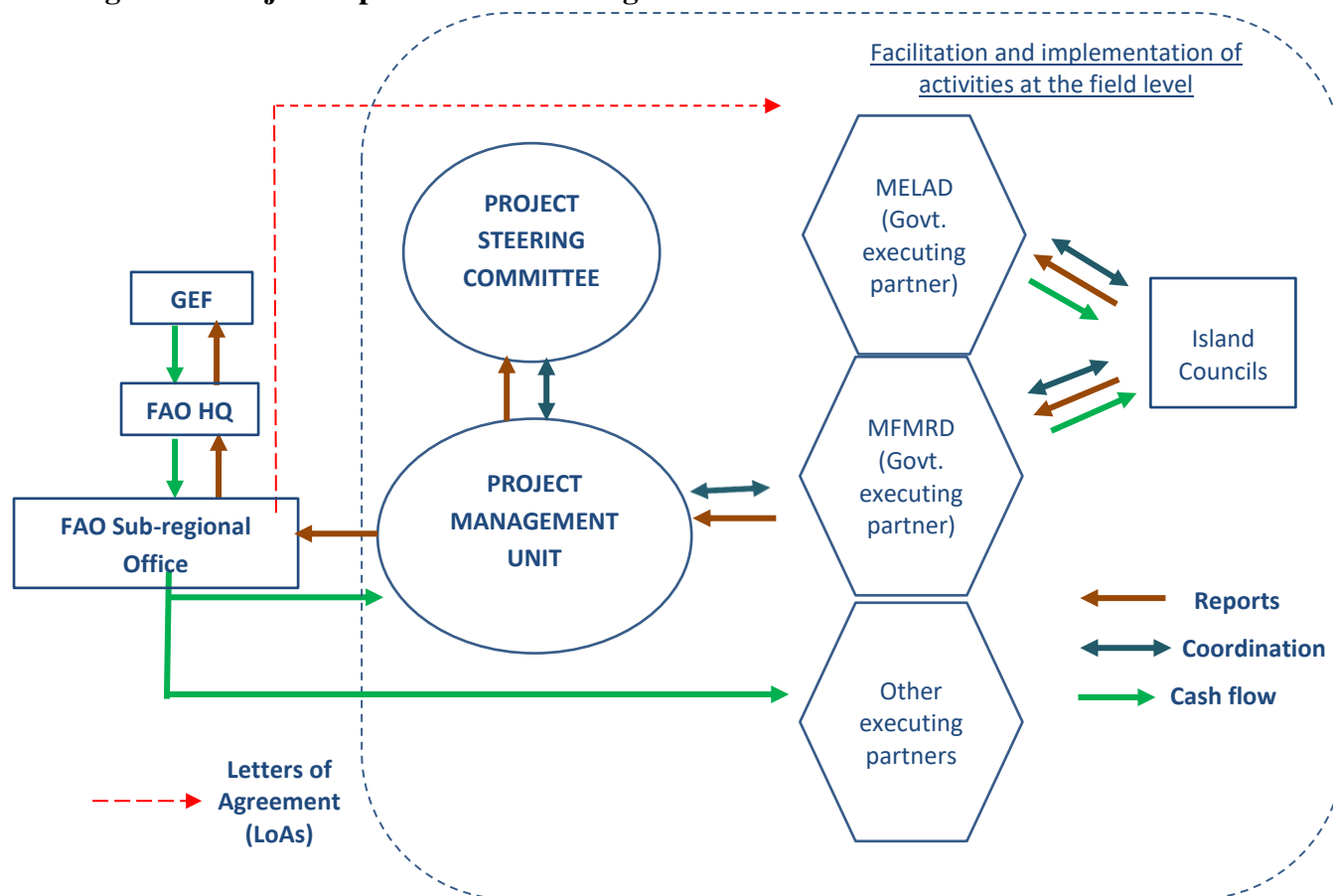
Draft Terms of Reference (TOR) for the CTA are listed in Appendix 6.

National Project Coordinator (NPC) will assist the CTA in all the above tasks, and eventually taking over the entire project management and technical supervision after the first three years of the project.

The **Operations and Finance Officer (OFO)** will assist the CTA and the NPC in ensuring smooth and timely implementation of project activities through FAO's operational and administrative procedures.

Implementation arrangements are presented in Figure 4.

Figure 4: Project implementation arrangements



3.2.2 Decision-making mechanisms of the project

A multi-stakeholder **Project Steering Committee (PSC)** will be established to guide and oversee implementation of the project. The PSC will meet at least twice a year and its specific responsibilities will be:

- a) Provide guidance to the PMU to ensure project implementation is in accordance with the project document;
- b) Review and approve any proposed revisions to the project results framework and implementation arrangements;
- c) Review, amend (if appropriate) and endorse all Annual Work Plans and Budgets;
- d) Review project progress and achievement of planned results as presented in six-monthly Project Progress Reports, Project Implementation Reviews (PIRs) and Financial Reports;
- e) Ensure that co-financing support will be available on time;
- f) Advise on issues and problems arising during project implementation;
- g) Facilitate cooperation between all project partners and facilitate collaboration between the Project and other relevant programmes, projects and initiatives in the country;
- h) Review progress towards cross sectoral collaboration between ministries and communities and provide guidance on ways to strengthen cooperation and collaboration, and
- i) Approve ToR for midterm and final evaluations

The PSC will be chaired by MELAD, *a nominee from MELAD*, will serve as the Project Director and will be responsible for ensuring the PSC responsibilities are fulfilled. The Committee's composition will include representation from the MELAD, MFMRD, MIA, FAO Lead Technical Officer or designate, UNDP/GEF LDCF project staff³, the GEF focal point, relevant Island Councils, partner organizations/projects, NGOs/CSOs, Ministry of Education, etc. The PSC may co-opt ad hoc representatives from the other partners from related projects, other relevant government departments, private sector etc. as may be necessary. The PSC will have the mandate and flexibility to establish site-specific management committees and appoint site coordinators.

FAO will provide support to MELAD in setting up the PMU and recruiting the needed staff for the PMU. The PMU will be located within MELAD and will have an important coordinating/logistics role. Much of this project will be executed via Letters of Agreement (LoA) with national executing partners in government and civil society. This can be seen in Figure 4 above. LoA are a means to enable national partners to execute significant key elements (whole outputs or outcomes) of the project on a day-to-day basis. AS a result, day- to-day implementation will be done largely thorough partners. In this case, Kiribati's Ministry of Environment, Lands, and Agriculture Development (MELAD) and Ministry of Fisheries and Marine Resources Development (MFMRD) are partners with whom FAO will elaborate LoA and transfer funds.

It is possible that other partners will be considered by the project steering committee (PSC) such as the Ministry of Education, the Ministry of Internal Affairs and the University of South Pacific.

3.2.3 FAO's roles and responsibilities

FAO's role in the project governance structure

FAO is the GEF Agency for the project. At the request of the Government of Kiribati and on an exceptional basis, FAO will serve as financial and operational executing agency, and will provide procurement services and financial management for GEF resources.

As the GEF Agency, FAO will supervise and provide technical guidance for the overall implementation of the project. The administration of GEF grants will be in accordance with FAO rules and procedures and in accordance with the agreement between FAO and the GEF Trustee. As the GEF agency for the project, FAO will:

- Administrate funds from GEF in accordance with the rules and procedures of FAO;
- Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers and the rules and procedures of FAO;
- Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned;
- Conduct at least one supervision mission per year; and
- Report to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, on project progress and provide financial reports to the GEF Trustee.

³ A reciprocal relationship with the LDCF will be requested to ensure effective collaboration and cooperation across the GEF projects

At the request of the Government of Kiribati and on an exceptional basis FAO will also be executing agency of GEF resources, including financial management, procurement of goods and contracting of services, according to FAO rules and procedures. As financial executor, FAO will provide to the Project Steering Committee semi-annual reports including a financial statement of project expenditures.

In accordance with the present Project Document and the AWP/B(s) approved by the PSC, FAO will prepare budget revisions to maintain the budget updated in the financial management system of FAO and will provide this information to the PSC to facilitate the planning and implementation of project activities. In collaboration with the PMU and the PSC, FAO will participate in the planning of contracting and procurement processes. FAO will process due payments for delivery of goods, services and products upon request of the PMU and based on the AWP/B and Procurement Plans that will be annually approved by the PSC.

FAO's roles in internal organization

The roles and responsibilities of FAO staff are regulated by the *FAO Guide to the Project Cycle, Quality for Results, 2015*, Annex 4: Roles and Responsibilities of the Project Task Force Members, and its updates.

The **Subregional Coordinator** (SRC) in the FAO Subregional Office for the Pacific Islands will be the Budget Holder (BH) and will be responsible for the management of GEF resources. As a first step in the implementation of the project, the FAO Subregional Office in Samoa will establish an interdisciplinary Project Task Force (PTF) within FAO, to guide the implementation of the project. The PTF is a management and consultative body that integrate the necessary technical qualifications from the FAO relevant units to support the project. The PTM is composed of a Budget Holder, a Lead Technical Officer (LTO), the Funding Liaison Officer (FLO) and one or more technical officers based in FAO Headquarters (HQ Technical Officer).

In consultation with the LTO, the FAO Subregional Coordinator will be responsible for timely operational, administrative and financial management of the GEF project resources, including in particular: (1) the acquisition of goods and contracting of services for the activities of the project, according to FAO's rules and procedures, in accordance with the approved AWP/B; (2) process the payments corresponding to delivery of goods, services and technical products in consultation with the PSC; (3) provide six-monthly financial reports including a statement of project expenditures to the PSC; and (4) at least once a year, or more frequently if required, prepare budget revisions for submission to the FAO-GEF Coordination Unit through the Field Programme Management Information System (FPMIS) of FAO.

The FAO Subregional Office for the Pacific, in accordance with the PTF, will give its non-objection to the AWP/Bs submitted by the PMU as well as the PPRs. PPRs may be commented by the PTF and should be approved by the LTO before being uploaded by the BH in FPMIS.

The role of **Lead Technical Officer (LTO)** for the project is central to FAO's comparative advantage for projects. The LTO will oversee and carry out technical backstopping to the project implementation. The LTO will support the BH in the implementation and monitoring of the AWP/Bs, including work plan and budget revisions. The LTO is responsible and accountable for providing or obtaining technical clearance of technical inputs and services procured by the Organization.

In addition, the LTO will provide technical backstopping to the PT to ensure the delivery of quality technical outputs. The LTO will coordinate the provision of appropriate technical support from PTF to respond to requests from the PSC. The LTO will be responsible for:

- Review and give no-objection to TORs for consultancies and contracts to be performed under the project, and to CVs and technical proposals short-listed by the PMU for key project positions, goods, minor works, and services to be financed by GEF resources;
- Supported by the FAO Subregional Office for the Pacific, review and clear final technical products delivered by consultants and contract holders financed by GEF resources before the final payment can be processed;
- Assist with review and provision of technical comments to draft technical products/reports during project execution;
- Review and approve project progress reports submitted by the CTA, in cooperation with the BH;
- Support the FAO Subregional Coordinator in examining, reviewing and giving no-objection to AWP/B submitted by the CTA, for their approval by the Project Steering Committee;
- Ensure the technical quality of the six-monthly Project Progress Reports (PPRs). The PPRs will be prepared by the CTA with assistance from the NPC, with inputs from the PT. The BH will submit the PPR to the FAO/GEF Coordination Unit for comments, and the LTO for technical clearance. The PPRs will be submitted to the PSC for approval twice a year. The BH will upload the approved PPR to FPMIS.
- Supervise the preparation and ensure the technical quality of the annual PIR. The PIR will be drafted by the CTA with assistance from the NPC, with inputs from the PT. The PIR will be submitted to the BH and the FAO-GEF Coordination Unit for approval and finalization. The FAO/GEF Coordination Unit will submit the PIRs to the GEF Secretariat and the GEF Evaluation Office, as part of the Annual Monitoring Review report of the FAO-GEF portfolio. The LTO must ensure that the CTA and the PT have provided information on the co-financing provided during the year for inclusion in the PIR;
- Conduct annual (or as needed) supervision missions;
- Review the TORs for the mid-term evaluation/review, participate in the mid-term workshop with all key project stakeholders, development of an eventual agreed adjustment plan in project execution approach, and supervise its implementation; and
- Provide inputs for the TORs of the final evaluation as requested by FAO Office of Evaluation;

The **HQ Officer** is a member of the PTF, as a mandatory requirement of the FAO Guide to the Project Cycle. The HQ Officer has most relevant technical expertise - within FAO technical departments - related to the thematic of the project. The HQ Technical Officer will provide effective functional advice to the LTO to ensure adherence to FAO corporate technical standards during project implementation, in particular:

- Supports the LTO in monitoring and reporting on implementation of environmental and social commitment plans for moderate projects. In this project, the HQ officer will support the LTO in monitoring and reporting the identified risks and mitigation measures (Appendix 4) in close coordination with the project partners.
- Provides technical backstopping for the project work plan.
- Clears technical reports, contributes to and oversees the quality of Project Progress Report(s) (PPRs – see Section 3.5).

- May be requested to support the LTO and PTF for implementation and monitoring.
- Supports the LTO and BH in providing inputs to the TOR of the Final Evaluation as requested by OED.

The FAO-GEF Coordination Unit will act as **Funding Liaison Officer (FLO)**. The FAO/GEF Coordination Unit will review the PPRs and financial reports, and will review and approve budget revisions based on the approved Project Budget and AWP/Bs. This FAO/GEF Coordination Unit will review and provide a rating in the annual PIR(s) and will undertake supervision missions as necessary. The PIRs will be included in the FAO GEF Annual Monitoring Review submitted to GEF by the FAO GEF Coordination Unit. The FAO GEF Coordination Unit may also participate in the mid-term evaluation/review and final evaluation, and in the development of corrective actions in the project implementation strategy if needed to mitigate eventual risks affecting the timely and effective implementation of the project. The FAO GEF Coordination Unit will in collaboration with the FAO Finance Division request transfer of project funds from the GEF Trustee based on six-monthly projections of funds needed.

The FAO Financial Division will provide annual Financial Reports to the GEF Trustee and, in collaboration with the FAO-GEF Coordination Unit, request project funds on a six-monthly basis to the GEF Trustee.

3.3 PLANNING AND FINANCIAL MANAGEMENT

The total cost of the project will be USD 18,060,030, of which USD 4 720 030 will be financed with a grant from the GEF.

3.3.1 Financial plan (by components, outcome and co-financiers)

Table 5 presents the cost per component, outputs and source of funding and Table 6 shows the sources and types of confirmed cofinancing. FAO, as a GEF agency, will be responsible only for the execution of GEF resources and FAO co-financing.

Table 5: Financial plan (by components, outcome and co-financier).



Financial Plan

Confirmed sources of co-financing

Sources of co-financing	Co-financier (source)	Type of co-financing	Amount of co-financing (\$)
Government	MELAD	In-kind	5 650 000
Government	MELAD	Cash	350 000
Government	MFMRD	In-kind	6 000 000
International Organization	University of Wollongong	Cash	378 000
International Organization	SPC	In-kind	152 000

International Organization	SPC	Cash	10 000
International Organization	FAO	In-kind	250 000
International Organization	FAO TCP (Agriculture)	Cash	300 000
International Organization	FAO TCP (Fisheries)	Cash	250 000
Total Co-financing			13 340 000

3.3.2 GEF Contribution

GEF contributions will be distributed into all three components, focusing on: i) hiring full time and part-time consultants that will form part of the PMU; ii) transfers of resources that will be made through Letters of Agreements (LoAs); iii) communications; iii) training; iv) travel and v) activities related to project monitoring and evaluation.

3.3.3 Government Contribution

Contribution of MELAD

MELAD will provide in-kind contribution spread across the three project components and project management costs through provision of facilities and staff time, this will amount to USD 5 650 000. MELAD's agroforestry activities will provide cash cofinancing of USD 350 000 for Component 2.

Contribution of MFMRD

MFMRD will provide in-kind contribution spread across the three project components and project management costs through provision of facilities and staff time, this will amount to USD 6 000 000.

3.3.4 FAO Contribution

FAO will provide in-kind contributions for project management costs of the project. This will amount to USD 250 000.

FAO- TCPs

FAO contribution through its two TCPs implemented in Kiribati will amount to USD 550 000 spread across three components of the project.

3.3.5 Inputs from other co-financiers

University of Wollongong

University of Wollongong will contribute cash cofinancing of USD 378 000 spread across three project components.

SPC

SPC in-kind cofinancing of USD 152,000 and cash cofinancing of USD 10 000 will be split between Component 1 and 3.

3.3.6 Financial management and reporting on GEF resources

Financial management and reporting in relation to the GEF resources will be carried out in accordance with FAO's rules and procedures, and in accordance with the agreement between FAO and the GEF Trustee. On the basis of the activities foreseen in the budget and the project, FAO will undertake all operations for disbursements, procurement and contracting for the total amount of GEF resources.

Financial records. FAO shall maintain a separate account in United States dollars for the Project's GEF resources showing all income and expenditures. Expenditures incurred in a currency other than United States dollars shall be converted into United States dollars at the United Nations operational rate of exchange on the date of the transaction. FAO shall administer the Project in accordance with its regulations, rules and directives.

Financial reports. The BH shall prepare six-monthly project expenditure accounts and final accounts for the project, showing amount budgeted for the year, amount expended since the beginning of the year, and separately, the un-liquidated obligations as follows:

1. Details of project expenditures on outcome-by-outcome basis, reported in line with Project Budget (Appendix 3 of this Project document), as at 30 June and 31 December each year.
2. Final accounts on completion of the Project on a component-by-component and outcome-by-outcome basis, reported in line with the Project Budget (Appendix 3 of this Project document).
3. A final statement of account in line with FAO Oracle Project budget codes, reflecting actual final expenditures under the Project, when all obligations have been liquidated.

Financial statements: Within 30 working days of the end of each semester, the FAO Representation in Gambia shall submit six-monthly statements of expenditure of GEF resources, to present to the Project Steering Committee. The purpose of the financial statement is to list the expenditures incurred on the project on a six monthly basis compared to the budget, so as to monitor project progress and to reconcile outstanding advances during the six-month period. The financial statement shall contain information that will serve as the basis for a periodic revision of the budget.

The BH will submit the above financial reports for review and monitoring by the LTO and the FAO GEF Coordination Unit. Financial reports for submission to the donor (GEF) will be prepared in accordance with the provisions in the GEF Financial Procedures Agreement and submitted by the FAO Finance Division.

Budget Revisions. Semi-annual budget revisions will be prepared by the BH in accordance with FAO standard guidelines and procedures.

Responsibility for cost overruns:

The BH is authorized to enter into commitments or incur expenditures up to a maximum of 20 percent over and above the annual amount foreseen in the project budget under any budget sub-line provided the total cost of the annual budget is not exceeded.

Any cost overrun (expenditure in excess of the budgeted amount) on a specific budget sub-line over and above the 20 percent flexibility should be discussed with the GEF Coordination Unit with a view to ascertaining whether it will involve a major change in project scope or design. If it is deemed to be a minor change, the BH shall prepare a budget revision in accordance with FAO standard procedures. If it involves a major change in the project's objectives or scope, a

budget revision and justification should be prepared by the BH for discussion with the GEF Secretariat.

Savings in one budget sub-line may not be applied to overruns of more than 20 percent in other sub-lines even if the total cost remains unchanged, unless this is specifically authorized by the GEF Coordination Unit upon presentation of the request. In such a case, a revision to the project document amending the budget will be prepared by the BH.

Under no circumstances can expenditures exceed the approved total project budget or be approved beyond the NTE date of the project. **Any over-expenditure is the responsibility of the BH.**

Audit

The Project shall be subject to the internal and external auditing procedures provided for in FAO financial regulations, rules and directives and in keeping with the Financial Procedures Agreement between the GEF Trustee and FAO.

The audit regime at FAO consists of an external audit provided by the Auditor-General (or persons exercising an equivalent function) of a member nation appointed by the Governing Bodies of the Organization and reporting directly to them, and an internal audit function headed by the FAO Inspector-General who reports directly to the Director-General. This function operates as an integral part of the Organization under policies established by senior management, and furthermore has a reporting line to the governing bodies. Both functions are required under the Basic Texts of FAO which establish a framework for the terms of reference of each. Internal audits of accounts, records, bank reconciliation and asset verification take place at FAO field and liaison offices on a cyclical basis.

3.4 PROCUREMENT

FAO will procure the equipment and services foreseen in the budget (Appendix 3) and the AWP/Bs, in accordance with FAO rules and procedures.

Careful procurement planning is necessary for securing goods, services and works in a timely manner, on a “Best Value for Money” basis, and in accordance with the Rules and Regulations of FAO. It requires analysis of needs and constraints, including forecast of the reasonable timeframe required to execute the procurement process. Procurement and delivery of inputs in technical cooperation projects follow FAO’s rules and regulations for the procurement of supplies, equipment and services (i.e. Manual Sections 502 and 507). Manual Section 502: “Procurement of Goods, Works and Services” establishes the principles and procedures that apply to procurement of all goods, works and services on behalf of the Organization, in all offices and in all locations, with the exception of the procurement actions described in Appendix A – Procurement Not Governed by Manual Section 502. Manual Section 507 establishes the principles and rules that govern the use of Letters of Agreement (LoA) by FAO for the timely acquisition of services from eligible entities in a transparent and impartial manner, taking into consideration economy and efficiency to achieve an optimum combination of expected whole life costs and benefits (“Best Value for Money”).

As per the guidance in FAO’s Project Cycle Guide, the BH will draw up an annual procurement plan for major items, which will be the basis of requests for procurement actions during implementation. The first procurement plan will be prepared at the time of project start-up, if not sooner, in close consultation with the NPC and LTU. The plan will include a description of

the goods, works, or services to be procured, estimated budget and source of funding, schedule of procurement activities and proposed method of procurement. In situations where exact information is not yet available, the procurement plan should at least contain reasonable projections that will be corrected as information becomes available.

The procurement plan shall be updated every 12 months and submitted to FAO BH and LTO for clearance, together with the AWP/B and annual financial statement of expenditures report for the next instalment of funds.

The BH, in close collaboration with the CTA, the NPC, the LTO and the Finance Officer will procure the equipment and services provided for in the detailed budget in Appendix 3, in line with the AWP and Budget and in accordance with FAO's rules and regulations.

3.5 MONITORING AND REPORTING

The monitoring and evaluation of progress in achieving the results and objectives of the project will be based on targets and indicators in the Project Results Framework (Appendix 1 and descriptions in sub-section 1.3.2). Monitoring and evaluation activities will follow FAO and GEF policies and guidelines for monitoring and evaluation. The monitoring and evaluation system will also facilitate learning and replication of the project's results and lessons in relation to the integrated management of natural resources.

3.5.1 Oversight and monitoring responsibilities

The monitoring and evaluation roles and responsibilities specifically described in the Monitoring and Evaluation table (see Table 3.4 below) will be undertaken through: (i) day-to-day monitoring and project progress supervision missions (PMU); (ii) technical monitoring of indicators (PMU, CTA and NPC in coordination with partners); (iii) mid-term evaluation/review and final evaluation (independent consultants and FAO Evaluation Office); and (v) monitoring and supervision missions (FAO).

At the beginning of the implementation of the GEF project, the PMU will establish a system to monitor the project's progress. Participatory mechanisms and methodologies to support the monitoring and evaluation of performance indicators and outputs will be developed. During the project inception workshop (see Section 3.5.3 below), the tasks of monitoring and evaluation will include: (i) presentation and explanation (if needed) of the project's Results Framework with all project stakeholders; (ii) review of monitoring and evaluation indicators and their baselines; (iii) preparation of draft clauses that will be required for inclusion in consultant contracts, to ensure compliance with the monitoring and evaluation reporting functions (if applicable); and (iv) clarification of the division of monitoring and evaluation tasks among the different stakeholders in the project. An M&E Expert will prepare a draft monitoring and evaluation matrix that will be discussed and agreed upon by all stakeholders during the inception workshop. The **M&E matrix** will be a management tool for the CTA, NPC, and the Project Partners to: i) bi-annually monitor the achievement of output indicators; ii) annually monitor the achievement of outcome indicators; iii) clearly define responsibilities and verification means; iv) select a method to process the indicators and data.

The **M&E Plan** will be prepared by the M&E Expert in the three first months of the PY1 and validated with the PSC. The M&E Plan will be based on the M&E Table 7 and the M&E Matrix and will include: i) the updated results framework, with clear indicators per year; ii) updated baseline, if needed, and selected tools for data collection (including sample definition); iii) narrative of the monitoring strategy, including roles and responsibilities for data collection and processing, reporting flows, monitoring matrix, and brief analysis of who, when and how will

each indicator be measured. Responsibility of project activities may or may not coincide with data collection responsibility; iv) updated implementation arrangements, if needed; v) inclusion of the tracking tool indicators, data collection and monitoring strategy to be included in the mid-term review and final evaluation; vi) calendar of evaluation workshops, including self-evaluation techniques.

The day-to-day monitoring of the project's implementation will be the responsibility of the CTA and NPC and will be driven by the preparation and implementation of an AWP/B followed up through six-monthly PPRs. The preparation of the AWP/B and six-monthly PPRs will represent the product of a unified planning process between main project stakeholders. As tools for results-based-management (RBM), the AWP/B will identify the actions proposed for the coming project year and provide the necessary details on output and outcome targets to be achieved, and the PPRs will report on the monitoring of the implementation of actions and the achievement of output and outcome targets. Specific inputs to the AWP/B and the PPRs will be prepared based on participatory planning and progress review with all stakeholders and coordinated and facilitated through project planning and progress review workshops. These contributions will be consolidated by the NPC in the draft AWP/B and the PPRs, and checked by the CTA.

An annual project progress review and planning meeting should be held with the participation of the project partners to finalize the AWP/B and the PPRs. Once finalized, the AWP/B and the PPRs will be submitted to the FAO LTO for technical clearance, and to the Project Steering Committee for revision and approval. The AWP/B will be developed in a manner consistent with the Project Results Framework to ensure adequate fulfilment and monitoring of project outputs and outcomes.

Following the approval of the Project, the PY1 AWP/B will be adjusted (either reduced or expanded in time) to synchronize it with the annual reporting calendar. In subsequent years, the AWP/Bs will follow an annual preparation and reporting cycle as specified in Section 3.5.3 below.

3.5.2 Indicators and sources of information

In order to monitor the outputs and outcomes of the project, including contributions to global environmental benefits, a set of indicators is set out in the Project Results Framework (Appendix 1). The Project Results Framework indicators and means of verification will be applied to monitor both project performance and impact. Following FAO monitoring procedures and progress reporting formats, data collected will be sufficiently detailed that can track specific outputs and outcomes, and flag project risks early on. Output target indicators will be monitored on a six-monthly basis, and outcome target indicators will be monitored on an annual basis, if possible, or as part of the mid-term and final evaluations.

Project output and outcome indicators have been designed to monitor both biophysical and socioeconomic impacts. The main sources of information to support the M&E plan include: i) participatory project monitoring systems; ii) participatory workshops to review progress with stakeholders and beneficiaries; iii) in-situ monitoring of the implementation; iv) progress reports prepared by the NPC and CTA with input from the in-country partners, project specialists and other stakeholders; v) consultancy reports; vi) training reports; vii) mid-term evaluation/review and final evaluation; viii) financial reports and budget reviews; ix) PIRs prepared by the FAO LTO; and x) FAO-supervised mission reports.

3.5.3 Reporting schedule

Specific reports that will be prepared under the monitoring and evaluation program are: (i) Project inception report; (ii) Annual Work Plan and Budget (AWP/B); (iii) Project Progress Reports (PPRs); (iv) Annual Project Implementation Review (PIR); (v) Technical reports; (vi) Co-financing reports; and (vii) Terminal Report. In addition, the GEF tracking tools for land degradation, biodiversity and SFM will be completed and will be used to compare progress with the baseline established during the preparation of the project.

Project Inception Report. After FAO internal approval of the project, a baseline study will be organized to establish the socioeconomic and biophysical baseline following which an inception workshop will be held. Immediately after the workshop, the NPC will prepare a project inception report in consultation with the CTA and other project partners. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed first year AWP/B and the M&E Matrix. The draft inception report will be circulated to FAO and the PSC for review and comments before its finalization, no later than three months after project start-up. The report will be cleared by the FAO BH, LTO and the FAO/GEF Coordination Unit. The BH will upload it in FPMIS.

Annual Work Plan and Budget(s) (AWP/Bs). The CTA and NPC will present a draft AWP/B to the PSC no later than 10 December of each year. The AWP/B should include detailed activities to be implemented by project outcomes and outputs and divided into monthly timeframes and targets and milestone dates for output and outcome indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year. The FAO Sub-regional Office in Samoa will circulate the draft AWP/B to the FAO Project Task Force and will consolidate and submit FAO comments. The AWP/B will be reviewed by the PSC and the PMU will incorporate any comments. The final AWP/B will be sent to the PSC for approval and to FAO for final no-objection. The BH will upload the AWP/Bs in FPMIS.

Project Progress Reports (PPR). PPRs will be prepared by the PMU based on the systematic monitoring of output and outcome indicators identified in the project's Results Framework (Annex 1). The PPRs are used to identify constraints, problems or bottlenecks that impede timely implementation and take appropriate remedial action. PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the Project Results Framework (Appendix 1), AWP/B and M&E Plan. The Budget Holder has the responsibility to coordinate the preparation and finalization of the PPR. Each semester the CTA with support from NPC will prepare a draft PPR, and will collect and consolidate any comments from the FAO PTF. The NPC will submit the final PPRs to the BH office every six months, prior to 10 June (covering the period between January and June) and before 10 December (covering the period between July and December). The July-December report should be accompanied by the updated AWP/B for the following Project Year (PY) for review and no-objection by the FAO PTF. After LTO, BH and FLO clearance, the FLO will ensure that project progress reports are uploaded in FPMIS in a timely manner.

Annual Project Implementation Review (PIR).

The BH (in collaboration with the PMU and the LTO) will prepare an annual PIR covering the period July (the previous year) through June (current year) to be submitted to the FLO for review and approval **no later than early July each year**. The FAO GEF Coordination Unit will submit the PIR to the GEF Secretariat and GEF Evaluation Office as part of the Annual

Monitoring Review report of the FAO-GEF portfolio. PIRs will be uploaded on the FPMIS by the FAO GEF Coordination Unit.

Key milestones for the PIR process:

- **Early July:** the LTOs submit the draft PIRs (after consultations with BHs, project teams) to the FAO GEF Coordination Unit (faogef@fao.org , copying respective GEF Unit officer) for initial review;
- **Mid July:** FAO GEF Coordination Unit responsible officers review main elements of PIR and discuss with LTO as required;
- **Early/mid-August:** FAO GEF Coordination Unit prepares and finalizes the FAO Summary Tables and sends to the GEF Secretariat by (date is communicated each year by the GEF Secretariat through the FAO GEF Unit);
- **September/October:** PIRs are finalized. PIRs carefully and thoroughly reviewed by the FAO GEF Coordination Unit and discussed with the LTOs for final review and clearance;
- **Mid November:** (date to be confirmed by the GEF): the FAO GEF Coordination Unit submits the final PIR reports -cleared by the LTU and approved by the FAO GEF Coordination Unit- to the GEF Secretariat and the GEF Independent Evaluation Office.

Technical reports. Technical reports will be prepared by national, international consultants (partner organizations under LOAs) as part of project outputs and to document and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by the PMU to the BH who will share it with the LTO. The LTO will be responsible for ensuring appropriate technical review and clearance of said report. The BH will upload the final cleared reports onto the FPMIS. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

Co-financing reports. The BH, with support from the PMU, will be responsible for collecting the required information and reporting on co-financing as indicated in the Project Document/CEO Request. The PMU will compile the information received from the executing partners and transmit it in a timely manner to the LTO and BH. The report, which covers the period 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The format and tables to report on co-financing can be found in the PIR.

GEF Tracking Tools. In compliance with GEF policies and procedures, tracking tools should be sent to the GEF Secretariat in three stages: (i) with the project approval document by the GEF Executive Director; (ii) with the mid-term evaluation/review of the project; and (iii) with the final evaluation of the project. The TT will be uploaded in FPMIS by the FAO GEF Coordination Unit. The TT are developed by the Project Design Specialist, in close collaboration with the FAO Project Task Force. They are filled in by the PMU and made available for the mid-term review and again for the final evaluation.

Terminal Report.

Within two months before the end date of the project, and one month before the Final Evaluation, the PMU will submit to the BH and LTO a draft Terminal Report. The main purpose of the Terminal Report is to give guidance at ministerial or senior government level on the policy decisions required for the follow-up of the project, and to provide the donor with information on how the funds were utilized. The Terminal Report is accordingly a concise account of the main products, results, conclusions and recommendations of the project, without unnecessary background, narrative or technical details. The target readership consists of persons who are not

necessarily technical specialists but who need to understand the policy implications of technical findings and needs for insuring sustainability of project results.

3.5.4 Monitoring and Evaluation summary

Table 7 summarizes the main monitoring and evaluation reports, parties responsible for their publication and time frames.

Summary of main monitoring and evaluation activities

M&E Activity	Responsible parties	Time frame/ Periodicity	Budget
Inception workshop	NPC; CTA; FAO SAP (with support from the LTO, and FAO-GEF Coordination Unit)	Within two months of project start up	USD 12 500
Project Inception report	NPC, CTA, Expert M&E and FAO SAP with clearance by the LTO, BH and FAO-GEF Coordination Unit	Immediately after the workshop	-
Field-based impact monitoring	NPC; CTA; project partners, local organizations	Continuous	USD 94 500 (9% of the Project Coordinator's and CTA's time)
Supervision visits and rating of progress in PPRs and PIRs	NPC/CTA; FAO (FAO SAP, LTO). FAO-GEF Coordination Unit may participate in the visits if needed.	Annual, or as needed	FAO visits will be borne by GEF agency fees Project Coordination visits shall be borne by the project's travel budget
Project Progress Reports (PPRs)	BH with support from NPC/CTA, with stakeholder contributions and other participating institutions	Six-monthly	USD 36 750 (3.5% of the Project Coordinator's and CTA's time)
Project Implementation Review (PIR)	BH (in collaboration with the PCU and the LTO) Approved and submitted to GEF by the FAO-GEF Coordination Unit	Annual	FAO staff time financed through GEF agency fees. PCU time covered by the project budget.
Co-financing reports	BH with support from PCU and input from other co-financiers	Annual	USD 10 500 (1% the Project Coordinator's and CTA's time)

M&E Activity	Responsible parties	Time frame/ Periodicity	Budget
Technical reports	NPC/CTA, FAO (LTO, FAO SAP)	As needed	-
Mid-term review (MTR)	MTR: FAO SAP, External consultant, in consultation with the project team, including the FAO-GEF Coordination Unit and others	Midway through the project implementation period	USD 45 000 (through an external consultancy)
Final evaluation	External consultant, FAO Independent Evaluation Unit in consultation with the project team, including the FAO-GEF Coordination Unit and others	At the end of the project	USD 60 000 (through an external consultancy) FAO staff time and travel costs will be financed by GEF agency fees
Terminal Report	NPC; FAO (FAO SAP, LTO, FAO-GEF Coordination Unit, TCS Reporting Unit)	Two months prior to the end of the project.	USD 12 500
Total budget			USD 271 750

3.6 REVIEW AND EVALUATION PROVISIONS

A Mid-Term Review will be undertaken at project mid-term to review progress and effectiveness of implementation in terms of achieving the project objectives, outcomes and outputs. Findings and recommendations of this review will be instrumental for bringing improvement in the overall project design and execution strategy for the remaining period of the project's term. FAO will arrange for the mid-term review in consultation with the project partners. The evaluation will, *inter alia*:

- (i) review the effectiveness, efficiency and timeliness of project implementation;
- (ii) analyze effectiveness of partnership arrangements;
- (iii) identify issues requiring decisions and remedial actions;
- (iv) propose any mid-course corrections and/or adjustments to the implementation strategy as necessary; and
- (v) highlight technical achievements and lessons learned derived from project design, implementation and management.

It is recommended that an independent Final Evaluation (FE) be carried out three months prior to the terminal review meeting of the project partners. The FE will aim to identify the project impacts and sustainability of project results and the degree of achievement of long-term results. This evaluation will also have the purpose of indicating future actions needed to sustain project results and disseminate products and best-practices within the country and to neighbouring countries.

3.7 COMMUNICATION AND VISIBILITY

In Component 1, the activities related to national and island level capacity and awareness building will have high visibility as it will involve all the key sectors and respective technical departments, partner agencies/projects, and the civil society. The national level coordination mechanism developed under the component will be through extensive consultations with all relevant national and island level stakeholders, this will inherently raise the visibility of the project.

Under Component 2, given the present discourse on whole-of-island approach in the country, activities related to mainstreaming R2R approach and implementing R2R strategies will be provided high visibility through local media (radio talk shows, press releases, etc.).

In Component 3, communication and increased visibility of the project will be through the yearly project newsletters, awareness materials and participation in the R2R cross country knowledge sharing methods. The newsletter and participation in R2R events will not only contribute to the visibility of the project (beyond national level), but also communicate the progress and the key lessons learnt (periodically in the case of newsletters). This component includes a collaboration mechanism among associated projects operating in Kiribati which will include discussion of coordinated awareness building and communication methods. In addition to this, at the end of the project, in conjunction with the terminal workshop a daylong meeting will be held to disseminate the project results, key lessons learnt and best practices captured through the project. This will also be documented through the end of project publication.

The project will also be part of the information sharing network at a regional level – the peer-to-peer scientific and technical network for knowledge sharing and training (PacIW:LEARN). This network will be established through the regional R2R programme and in accordance with Objective 3 of the GEF International Waters focal area on support to foundational capacity building, portfolio learning, and targeted research needs. This will build on the baseline PacIWRM project's successful delivery of distance learning and twinning for IWRM capacity development.

SECTION 4 – SUSTAINABILITY OF RESULTS

The project has been designed to remove identified barriers and create an enabling environment for the implementation of R2R conservation and sustainable use approach.

It is expected that as of PY 5 of the project, institutions, communities, and other stakeholders will be able to give continuity to the activities undertaken by the project.

Factors that encourage sustainability in its social, environmental, economic, and capacity-building dimensions are listed below:

4.1 SOCIAL SUSTAINABILITY

The implementation of the project will include defining factors that ensure social sustainability:

- **Capacity development** (see subsection 4.4)
- **Safe, complementary livelihoods** opportunities will be developed to at the island level. The Socio-economic impacts of alternative or complementary livelihood options will be assessed to ensure that proposed livelihood strategies do not have negative food

security impacts. Additionally, safety at sea measures will be considered for any change in fisheries activities.

- **Gender equality and gender mainstreaming** at the institutional and community levels. The project will promote the participation of women and empower them to strengthen their role in planning and decision-making, and improve their productivity, incomes, and living conditions. At the institutional level, adequate consideration of gender issues will be promoted through adherence of international instruments that Kiribati is party to such as the tenants of Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) within national activities related to collaboration mechanisms, policy and legislation and education. At the community level, participation of women will be particularly promoted in the community groups supported/established by the project, by ensuring that women make up at least 30% of the members. The project will also facilitate women's access to training and technical assistance. Training programmes delivered through the project will ensure that at least 30% of the participants are women. Data will be disaggregated by gender to monitor for the differential impacts of the project and female beneficiaries will be involved and represented in all project activities. Women will make up at least 30% of the beneficiaries of the project.
- **Food security** has very strong linkages to the ecosystem goods and services provided by the island ecosystems. Healthy ecosystems provide food security benefits to communities through goods and services. The sustainable management of the coastal and land resources targeted by the project will ensure the flow of food sources that act as key safety net for local communities. Diversifying and improving livelihoods, especially agroforestry practices will contribute to household level food security.
- Ownership by local institutions and communities of the overall processes of the project is vital for the social sustainability of the project. Commitment and display of ownership by local communities and strong facilitation of local institutions are the basic tenets of this project; the project's strategy is to implement R2R conservation and sustainable use strategies through community groups, while supporting the development of an enabling environment at the national level ensuring continued ownership.

4.2 ENVIRONMENTAL SUSTAINABILITY

The project will be implemented in areas under threat of degradation which also constitute an important component of improving food security through providing vital island ecosystem services. This project will intensify efforts to manage these areas sustainably ensuring the continued flow of ecosystem services. Sustainable use practices, restoration and development of good management practices will all lead to environmental gains during the project cycle and beyond. The monitoring systems established and embedded into the existing institutional and decision-making frameworks will ensure that environmental sustainability is achieved.

4.3 FINANCIAL AND ECONOMIC SUSTAINABILITY

The financial and economic sustainability of the project will be achieved to the extent that these activities are financially and economically viable for the parties involved, including the community groups and their members.

The activities promoted by the project will help increase the financial and economic sustainability of rural beneficiaries and improve their livelihoods. The project's dissemination of R2R best practices will tend to improve financial sustainability in the medium term through training, initial investment, and technical support during the project period. The project will support the mainstreaming of R2R approach into national policies and planning, helping to

channel resources and investments from the national budget for the sustained efforts to carry forward the R2R approach.

4.4 SUSTAINABILITY OF CAPACITY DEVELOPMENT

Capacity development is one of the essential pillars necessary to ensure the project's sustainability at the local and institutional levels.

The project will address two dimensions of capacity development according to the approach developed by FAO on sustainability. 1) Technical capabilities; directed at producers/harvesters (in this case the communities involved in coastal fishing and agroforestry) and entities directly providing technical support to the producers/harvesters. 2) Functional capabilities; aimed at support organizations (both government and non-government), to plan, direct, manage, and sustain change initiatives that ensure that specialized technical expertise will be incorporated into local systems and processed in a sustainable manner.

Sustainability at the community level will be ensured through local level skill transfers as well as the fostering of ownership. The improvement in functional capabilities will ensure institutionalization of technical expertise, and this will sustain capacities at the institutional level.

4.5 APPROPRIATENESS OF TECHNOLOGIES INTRODUCED and COST/EFFECTIVENESS

Technologies

The Project will promote tested and cost-effective resource management, utilization and production practices. These practices include assisted natural regeneration, forest protection, forest rehabilitation, agroforestry (with native species), a trialled community based management approach for fisheries, new effective fishing practices, and improved processing of products.

The Project will use training methodologies, community participation models and technical assistance approaches currently used by FAO and project partners that are known and accepted by technical experts and producers/harvesters. Incorporation of local and traditional knowledge of communities is of utmost importance in this approach and existing experience from FAO and project partners on respectful and effective incorporation of local and traditional knowledge will be utilized.

Project technical feasibility is based on the presence of entities with sufficient fundamental technical capacity to support and further transfer local technologies at the ground level. MELAD, MFMRD and cofinancing partners of this project have a track record of providing extension services, promoting and supporting sustainable use of natural resources.

Cost/effectiveness

The project design is cost-effective because it is based upon baseline initiatives, national and local skills and infrastructure, and national and local policies. During full project preparation, a number of strategies and methodologies have been identified that are complementary and synergic among them and are cost/effective ways of removing the barriers and addressing the threats to GEBs detailed in sub-sections 1.2.1 and 1.2.3 above. These strategies and methodologies are detailed below:

- i) The project development is based on coordination between key sectoral partners in the country, this is reflected in the co-financing partnerships, this will enhance synergies, avoid duplication of efforts, and reduce the implementation costs;
- ii) The participation of key stakeholders (including national level government entities in PSC) will ensure that decision-making and project implementation will be aligned to local development priorities and public financing mechanisms;
- iii) Training and awareness-raising among local communities participating through the community groups, and their hands on experience in techniques implemented through the project will ensure that these members are promoters of these practices at the local level, ensuring their cost effective dissemination
- iv) The institutional capacities developed at the national and regional levels will contribute to the scale-up of the project activities, helping the effective management of natural resources at the regional levels;
- v) The systematization of experiences and lessons learned made available to project partners and key stakeholders will also contribute to a cost/effective replication of project results throughout the country.

4.6 INNOVATIVENESS, REPLICATION and SCALE-UP

Innovativeness

The project promotes a multi-sectoral approach and sectoral coordination, to ensure mainstreaming of R2R approach. The project strategy is also based on strengthening local institutions and establishing local level support systems. The established national support and monitoring systems will not be just a means for providing assistance in terms of resource conservation and management, but they would be a channel to provide inputs to national sectoral processes and planning, and escalate bottlenecks and issues to find effective and quick solutions. At the ground level, the project will be innovative, as it will not just involve communities but enable them through both legal and technical avenues, to be drivers in the conservation and management of their natural resources

Replication and up-scaling

This project is a pilot designed to replicate R2R conservation and sustainable use practices across the islands of Kiribati. The agroforestry, marine management and other practices implemented by the project are designed to be replicable in other islands of the country. The systematization of experiences and lessons learned will also serve to promote the replication of project results at the regional level.

The up-scaling potential of the project activities and results is high, given its complementarity with national policies, plans, and programs (see sub-section 1.2.2). The main project partners, MELAD and MFMRD, building on the improved enabling framework (including strengthened policy, multi-sectoral coordination mechanism, local level support systems, and capacity development) and techniques/practices implemented through the project, will lead the scaling up throughout the country, as per their mandate.

APPENDICES

APPENDIX 1 and 2: RESULTS FRAMEWORK AND ACTIVITIES PLAN

The results framework is provide below. The activities plan will be prepared during the inception phase.



Results
Framework-24Feb.xl

Results Chain	Indicators	Baseline	End of Project Target	Means of Verification and Responsible Entity	Assumptions
Component 1: Enabling environment for R2R conservation and sustainable use					
<i>Outcome 1.1 Enabling environment improved for ecosystem-based sustainable use and conservation of island resources</i>					
<u>Output 1.1.1</u> R2R concept mainstreamed into sectoral development priorities, legal framework and policies with an emphasis on protecting and developing livelihoods	Number of sectors integrating cross sectoral and ecosystem considerations in sectoral priorities	Cross sectoral and ecosystem wide considerations not integrated into sectoral policies and priorities	R2R concept integrated or mainstreamed into at least three sectoral priorities/policies / legal framework	Review and gap analysis reports; Revised or new policies/priorities (official documents)	Government departments work together / Ministries willing to revise the identified policies/ Natural disaster does not realign priorities

Results Chain	Indicators	Baseline	End of Project Target	Means of Verification and Responsible Entity	Assumptions
<u>Output 1.1.2</u> National level coordination mechanism developed for cross-sectoral decision-making (including on PAs)	Number of national cross sectoral coordination and decision making mechanism present	No effective mechanism exists for cross sectoral decision making	At least one cross sectoral coordination mechanism established and functional	Analysis, review, consultation reports ToR of the coordination mechanism Cross sectoral decision making functioning (e.g. effective facilitation of decisions on R2R and cross-sectoral strategies) PA strategy	Willingness and cooperation of relevant Ministries and Island Councils

Results Chain	Indicators	Baseline	End of Project Target	Means of Verification and Responsible Entity	Assumptions
<u>Output 1.1.3</u> Resilience and socio-ecological planning for national to island-level coordination mechanism on whole-of-Island based R2R conservation and sustainable-use strategies streamlined across national and islands levels	Incorporation of resilience and socio-cultural considerations into the coordination mechanism	NA	Coordination mechanism incorporates resilience and socio-cultural considerations	List of indicators to measure resilience R2R strategy documents Scaling-up model	Effective participation of Island Councils
<u>Output 1.1.4</u> National and island level environmental education, outreach and extension program developed	Number of individuals in R2R Masters Programme Number of extension agents/staff trained Number of schools/	Zero participation in R2R Master's degree program No R2R conservation integrated in existing curricula No training or outreach programme on R2R conservation	At least two persons enrolled in R2R Master's program 25 extension agents/staff trained Nine schools and 30 communities under the outreach programme	Curricula Outreach and training materials Training reports Enrolment in the R2R Master's program	Schools uptake new curricula Interest in enrolling onto R2R Master's program Community level interest in receiving the outreach programme

Results Chain	Indicators	Baseline	End of Project Target	Means of Verification and Responsible Entity	Assumptions
	communities under the outreach programme				
Component 2: Implementation of R2R conservation and sustainable use strategies					
<i>Outcome 2.1 National management system for ecosystem-based sustainable use and conservation of island resources established to deliver SFM, LD, and BD benefits</i>					

Results Chain	Indicators	Baseline	End of Project Target	Means of Verification and Responsible Entity	Assumptions
<u>Output 2.1.1</u> R2R conservation and sustainable use strategies initiated in three islands in aquatic and terrestrial ecosystems	Number of integrated land and marine management plans	No integrated land and marine management plans in project sites Some planning done for coastal areas, but not across land/sea and not in all islands	Three completed island level R2R management plans	Workshop report Management plans	CF task forces are integrated into existing institutional mechanisms
Output 2.1.2 Expanded and complementary livelihoods developed as a part of the plans developed under Output 2.1.1	Number of new or complementary subsistence or livelihood activities developed Number of households with expanded	Limited sustainable livelihood activities	At least 350 households adopt engage in expanded/complementary livelihoods	Food security and livelihood strategies Review reports	New or expanded livelihoods are viable and sustainable; stable local economic conditions

Results Chain	Indicators	Baseline	End of Project Target	Means of Verification and Responsible Entity	Assumptions
	livelihood opportunities				
<u>Output 2.1.3</u> R2R conservation and use strategies across land and sea implemented at three target islands (through the integrated plans)	Number of hectares of agroforestry sites established Number of hectares of forests restored Number of hectares of marine area under co-management as new PAs	350 ha 0 0	828 ha under agroforestry 232 hectares under SFM 22 417 hectares of marine area under co-management as three new PAs	Nursery records Planting records Site assessment reports Community reports	Targeted communities sustain their interest to participate community-based management support by local and national government

Results Chain	Indicators	Baseline	End of Project Target	Means of Verification and Responsible Entity	Assumptions
<u>Output 2.1.4</u> At least three PAs established (where identified in Outputs 2.1.1)	Number of new PAs	1 PA	3 PAs	Consultation reports Cooperative agreements PA management plans Community reports	Communities identify PAs as necessary management measures Island councils support PA establishment
Component 3: Lessons learning and sharing					
<i>Outcome 3.1 Project implementation based on results based management and application and sharing of project findings and lessons learned</i>					
<u>Output 3.1.1</u> Monitoring, evaluation and reporting plan and system for the project established and operational	Set project targets and milestones achieved according to the work plans	Project monitoring system does not exist	Set project targets achieved	Six-monthly progress reports, PIRs; Mid-term review and terminal evaluation reports	Monitoring information is provided in time by the executing partners

Results Chain	Indicators	Baseline	End of Project Target	Means of Verification and Responsible Entity	Assumptions
<u>Output 3.1.2</u> Project related ‘knowledge’ captured and shared	Knowledge and communication products	NA	A project publication (in a format relevant to local stakeholders) with the results and lessons documented At least 5	Workshop report; Project newsletters; Publication; PacIW:LEARN Website Communication strategy	Project implementation is successful

APPENDIX 3: PROJECT BUDGET



Budget.xlsx

APPENDIX 4: RISK MATRIX

Risk Type	Probability (Likelihood/Impact) 1: Low 5: High	Mitigation
Logistics stymie project implementation capacity	Likelihood: 2 Impact: 3	Distances are great and logistics challenging in Kiribati. The project is designed specifically to be sure adequate resources are available and focused. Pilot sites were chosen based upon the ability to generate strong models for replication.
Sectoral barriers and siloed thinking within government ministries and agencies remain	Likelihood: 3 Impact: 4	The project approach is to create space for government ministries, local councils and community leaders to share information and experiences. A special “listening” session has been arranged for communities to participate in the PSC. Project staff will emphasize the merits of creating a common and unified vision and assist in taking steps towards achieving a common goals. Links between the R2R and other relevant projects (including the GEF LDCF project) will be strengthened. M&E will track and provide specific feedback on progress towards cross-sector cooperation and non-silo thinking.
Island Government and community level support is not sustained, including failure of communities to follow the new rules	Likelihood: 2 Impact: 3	<p>Collaboration of local communities will be critical to achieving the objectives of the project, but the communities will need incentives to take ownership and participate in the resource management and biodiversity conservation activities. It may be difficult to reach agreement with all members of communities on management and enforcement measures.</p> <p>Extensive community consultations are built into every aspect of the project. Project sites will be selected, in large part, in places where communities demonstrate an interest and willingness to engage in project activities. Project ownership will be generated very early and economic incentives through livelihood diversification and improvement activities will be provided. The project is also working very closely with the MIA. The Ministry is responsible for supporting the activities of Island Councils.</p>
Communities disengage from implementing management solutions	Likelihood: 3 Impact: 4	Community engagement in substantive project activities coupled with in-field vocational training coupled with providing a community voice in the project steering committee will provide both the means for (i) real community engagement in the project, and (ii) monitoring perceptions and benefits being derived by the project at the community level
Over exploited and heavily depleted zones expand and new fishing grounds are opened up without effective conservation and management measures	Likelihood: 2 Impact: 4	<p>This risk stems through unsustainable activities creeping into the project sites through external actors. The approach to address this risk would be triple pronged, one, local ownership and engagement for local level monitoring and reporting, two, through engagement of Island Councils for immediate action on transgressions and three, through providing livelihood diversification pilots</p> <p>As mentioned above, ownership and engagement of local communities is an integral part of the project. Similarly, Island Councils are key partners in the project planning and implementation processes.</p>
Government support, including sustainable financing, becomes	Likelihood: 3 Impact: 3	While MELAD and MFMRD have experience implementing GEF-financed and other projects, overall human resource capacity is generally low, particularly in the outer islands where government presence to look after environment management and

Risk Type	Probability (Likelihood/Impact) 1: Low 5: High	Mitigation
inconsistent with long term project objectives		<p>protection, is nearly non-existent. Government budgets are fairly low, which could present problems if already low budgets are reduced due to changes in national budget allocations.</p> <p>Significant capacity-building activities, for government and stakeholders alike, are included in the project to address capacity gaps. Project management will closely monitor government budget allocations in order to flag and potential shortfalls as soon as possible, so that corrective measures can be taken as needed to ensure continued implementation of project activities</p>
Climate change negatively impacts project outcomes	Likelihood: 2 Impact: 3	Sea level rise, storm surge, and variable rainfall patterns may cause communities to migrate to other areas, potentially disrupting community-led activities. The project is designed specifically to improve resilience to climate change. The likelihood of short-term impacts is low.

APPENDIX 5: ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST

Would the project, if implemented?	Not Applicable	No	Yes	Unknown
I. FAO VISION/STRATEGIC OBJECTIVES				
Be in line with FAO's vision?			Y	
Be supportive of FAO's strategic objectives?			Y	
II. FAO KEY PRINCIPLES FOR SUSTAINABILITY IN FOOD AND AGRICULTURE				
Improve efficiency in the use of resources?			Y	
Conserve, protect and enhance natural resources?			Y	
Protect and improve rural livelihoods and social well-being?			Y	
Enhance resilience of people, communities and ecosystems?			Y	
Include responsible and effective governance mechanisms?			Y	
ESS 1 NATURAL RESOURCES MANAGEMENT				
❖ Management of water resources and small dams				
Include an irrigation scheme that is more than 20 hectares or withdraws more than 1000 m ³ /day of water?	NA			
Include an irrigation scheme that is more than 100 hectares or withdraws more than 5000 m ³ /day of water?	NA			
Include an existing irrigation scheme?	NA			
Include an area known or expected to have water quality problems?	NA			
Include usage of non-conventional sources of water (i.e. wastewater)?	NA			
Include a dam that is more than 5 m. in height?	NA			
Include a dam that is more than 15 m. in height?	NA			
Include measures that build resilience to climate change?	NA			
❖ Tenure				
Negatively affect the legitimate tenure rights of individuals, communities or others ⁴ ?		N		
ESS 2 BIODIVERSITY, ECOSYSTEMS AND NATURAL HABITATS				
Make reasonable and feasible effort to avoid practices that could have a negative impact on biodiversity, including agricultural biodiversity and genetic resources?			Y	
Have biosafety provisions in place?	NA			
Respect access and benefit-sharing measures in force?			Y	
Safeguard the relationships between biological and cultural diversity?			Y	
❖ Protected areas, buffer zones and natural habitats				
Be located such that it poses no risk or impact to protected areas, critical habitats and ecosystem functions?			Y	

⁴ In accordance with Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT)
<http://www.fao.org/docrep/016/i2801e/i2801e.pdf>

Would the project, if implemented?	Not Applicable	No	Yes	Unknown
ESS 3 PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE				
❖ Planted forests				
Have a credible forest certification scheme, national forest programmes or equivalent or use the Voluntary Guidelines on Planted Forests (or an equivalent for indigenous forests)?	NA			
ESS 4 ANIMAL - LIVESTOCK AND AQUATIC- GENETIC RESOURCES FOR FOOD AND AGRICULTURE				
Involvement in the procurement or provision of pesticides?	NA			
❖ Aquatic genetic resources				
Adhere (Aligned) to the FAO Code of Conduct for Responsible Fisheries (CCRF) and its related negotiated instruments?			Y	
Be aligned, where applicable, with FAO's strategic policies established in the FAO Technical Guidelines for Responsible Fisheries (including aquaculture)?	NA			
❖ Livestock genetic resources				
Be aligned with the Livestock Sector Strategy including the animal disease, public health and land degradation provisions?	NA			
ESS 5 PEST AND PESTICIDES MANAGEMENT				
Involvement in the procurement or provision of pesticides?		N		
Result in increased use of pesticides through expansion or intensification of production systems?		N		
Require the disposal of pesticides or pesticide contaminated materials?		N		
ESS 6 INVOLUNTARY RESETTLEMENT AND DISPLACEMENT				
Avoid the physical and economic displacement of people?			Y	
ESS 7 DECENT WORK				
Adhere to FAO's guidance on decent rural employment, promoting more and better employment opportunities and working conditions in rural areas and avoiding practices that could increase workers' vulnerability?			Y	
Respect the fundamental principles and rights at work and support the effective implementation of other international labour standards, in particular those that are relevant to the agri-food sector?			Y	
ESS 8 GENDER EQUALITY				
Have the needs, priorities and constraints of both women and men been taken into consideration?			Y	
Promote women's and men's equitable access to and control over productive resources and services?			Y	
Foster their equal participation in institutions and decision-making processes?			Y	
ESS 9 INDIGENOUS PEOPLES AND CULTURAL HERITAGE				
Are there any indigenous communities in the project area?			Y	
Are project activities likely to have adverse effects on indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible)?		N		
Are indigenous communities outside the project area likely to be affected by the project?		N		
Designed to be sensitive to cultural heritage issues?	NA			

APPENDIX 6. TERMS OF REFERENCE

Draft⁵

Chief Technical Advisor

Under the overall supervision of the FAO Subregional Coordinator, and the direct supervision of the Lead Technical Officer (LTO), the Chief Technical Advisor (CTA) will act as the leader of the Project's Coordination Unit (PMU) and will be responsible for leading, supervising and coordinating all activities aimed at the successful implementation of the three project components, budget execution, team management, and maintenance of institutional relationships with project partners. The CTA will be responsible for overall and annual planning, the preparation of contracts and agreements with organizations and consultants, technical supervision of the PMU members and advisers, and the daily management of the project.

Main responsibilities

- Direct the execution of the project's technical and administrative activities, with support from the National Project Coordinator (NPC), with LTO technical supervision at the Subregional Office and FAO Headquarters in Rome.
- Coordinate and participate in the start-up workshop, and the planning workshops with local stakeholders and project partners for the preparation of the Annual Work Plan(s) and Budget(s) (AWP/B).
- Provide technical assistance and guide project partners in the implementation of activities related to the project.
- Periodically conduct supervisory visits in the field and advise the technical personnel of the project partners.
- Permanent coordination and communication with project partners' personnel in charge of project activities.
- Monitor risks according to the risk matrix (see APPENDIX 4) and ensure the implementation of mitigation measures.
- Prepare the Project Progress Reports (PPRs) and the Terminal Report (TR) in coordination with the project team and submit it for the consideration and review of the LTO and the Project Steering Committee (PSC).
- Provide input to the Annual Project Implementation Review(s) (PIR) to be finalized by the BH.
- Advise project partners in the preparation of reports on in-kind and in-cash cofinancing provided by co-financiers and other partners that were not foreseen in the Project Document.
- In consultation with the PSC, the FAO Evaluation Office, the LTO and the FAO-GEF Coordination Unit, assist in organizing the mid-term evaluation/review and final evaluation.
- Coordinate the review and approval of the terms of reference and technical specifications, in order to proceed to the corresponding contracts.
- Coordinate work plans with the consultants hired to implement the project.
- Organize and serve as Secretary for the PSC and Liaison Committee meetings.
- Make the necessary arrangements to facilitate—through agreements and interagency partnerships with local or national government bodies, as well as the private sector—the development of the project and the achievement of its outcomes.
- Ensure technical compliance with project objective, outcomes and outputs, and follow the monitoring and evaluation plan prepared by the M&E Expert.

⁵ NPC and Consultants' Terms of Reference will be developed and validated during the project's inception.

- Coordinate the implementation of the project's communication strategy and the institutional strengthening activities.

Required professional profile

- Advanced degree in a field related to the project (natural resource management, forestry, fisheries etc.).
- Minimum of five years' experience in the management of projects in natural resource management sector
- Minimum of three years' experience in coordinating development projects or components financed by international organizations.
- Experience in the coordination of multidisciplinary teams.
- Knowledge and experience in results-based management, development and implementation of budgets, preparation of technical and financial reports, and monitoring and evaluation.
- Ability to prepare concise reports according to United Nations standards.
- Knowledge and use of participatory planning tools.
- Knowledge of the socioeconomic reality of Kiribati and the problems of gender equality.
- Proven ability to lead a team and capacity for teamwork.
- Excellent oral and written skills.
- Experience managing GEF projects desired.
- Experience in implementation and evaluation of FAO projects desired.
- Previous project management experience in Small Island Developing States would be an asset
- Availability to travel frequently to the project sites.

Duration: 36 months

Location: Tarawa and with frequent travel to the areas covered by the project.

Languages: English

Operations and Administration Officer

Under the direct supervision of the FAO BH and in consultation with the PC, the Operations and Administrative Officer (note: might be two separate positions) will have the following responsibilities and functions:

- Ensure smooth and timely implementation of project activities in support of the results-based work plan, through operational and administrative procedures according to FAO rules and standards;
- Coordinate the project operational arrangements through contractual agreements with key project partners;
- Arrange the operations needed for signing and executing Letters of Agreement (LoA) with relevant project partners;
- Maintain inter-departmental linkages with FAO units for donor liaison, Finance, Human Resources, and other units as required;
- Day-to-day manage the project budget, including the monitoring of cash availability, budget preparation and budget revisions to be reviewed by the PC;
- Ensure the accurate recording of all data relevant for operational, financial and results-based monitoring;
- Ensure that relevant reports on expenditures, forecasts, progress against work plans, project closure, are prepared and submitted in accordance with FAO and GEF defined procedures and reporting formats, schedules and communications channels, as required;
- Execute accurate and timely actions on all operational requirements for personnel-related matters, equipment and material procurement, and field disbursements;
- Participate and represent the project in collaborative meetings with project partners and the Project Steering Committee, as required;
- Undertake missions to monitor the outputs-based budget, and to resolve outstanding operational problems, as appropriate;
- Be responsible for results achieved within her/his area of work and ensure issues affecting project delivery and success are brought to the attention of higher level authorities through the BH in a timely manner;
- In consultation with FAO Evaluation Office, the LTU, and FAO-GEF Coordination Unit, support the organization of the mid-term evaluation/review and final evaluation, and provide inputs regarding project budgetary matters;
- Provide inputs and maintain the FPMIS systems up-to-date; and
- Undertake any other duties as required.

Qualifications

- University Degree in Economics, Business Administration, or related fields;
- Five years of experience in project operation and management related to natural resources management, including field experience in developing countries;
- Proven capacity to work and establish working relationships with government and non-government representatives;

- Excellent English language skills; and
- Knowledge of FAO's project management systems (desirable).

Socioeconomic Consultant (the funds for recruiting this consultant will come from the PPG funds)

Under the overall supervision of the FAO Sub-regional Coordinator and direct supervision of the Lead Technical Officer (LTO), the consultant will lead and conduct a baseline survey, with the following responsibilities;

Responsibilities

- Through surveys and interviews, site assessments and reviews of national socioeconomic statistics (social surveys, population censuses, etc.), collect baseline socioeconomic

information at project sites and elaborate proposals for gender mainstreaming and participation in project activities.

- Identify and enumerate project beneficiaries at target sites (including enumeration by gender) and collect information on resource based subsistence/livelihood activities
- Discuss with local community members what they perceive as the potential impacts of the project and identify ways in which the project might contribute to local development needs
- On the basis of the above consultations and analysis, develop recommendations for gender mainstreaming, active engagement of youth and ensuring the project adheres to the 4 pillars of Decent Work

Expected outputs

- Socio-economic assessment report for the project sites (with clear socio-economic data)
- Project Strategy to mainstream gender and engage youth (including specific indicators on gender and youth)
- A brief plan to ensure that the project activities adhere to the 4 pillars of Decent Work Agenda

Required professional profile

- Master's degree in social sciences or a related area
- At least 10 years of work experience related to socio-economic analysis
- Thorough familiarity and proven experience in socio-economic data collection
- Familiarity with forestry/fisheries/natural resource managements issues in SIDS context
- Fluency in English language and good writing skills

**** Specific ToRs for other short term consultants will be developed by the CTA, based upon the guidance of this document.***

APPENDIX 7. MAPS

North Tarawa



Tabiteuea



Butaritari



Enhancing national food security in the context of global climate change

APPENDIX 8. Quantifying Carbon Benefits

Three forest and agroforestry management regimes are considered to generate carbon benefits through the project. The narrative of these regimes and intervention scenarios are as follows:

- 1) **Mangrove restoration:** Project activities will be carried out for 82 ha of degraded mangrove forests in three target islands. Based on the most recent reliable data (Metz, 1996), the mangrove area consists of 258 ha. The project will, thus, cover 32% (or 82 ha) of the total mangrove forests in Kiribati. The mangroves are one of three categories of forests found in Kiribati, along with coconut and woodland, and have been playing important roles such as stabilising tidal-zone soils, reducing the impact of storm surge, providing habitat and sources of food, and regulating marine pollution. The project will restore 82 ha of mangrove forests through planting and assisting natural regeneration from project year 3. The areas for indirect Greenhouse Gas (GHG) emission mitigation potential are assumed as 50 ha of mangrove forest.
- 2) **Natural forest conservation and rehabilitation:** The project will conserve and rehabilitate 150 ha of natural woodland and shrubs through forest area conservation and assisted natural regeneration. Conservation of forest will be promoted by e.g. mainstreaming of Ridge-to-Reef (R2R) legal framework and policies (Output 1.1.1), R2R conservation and sustainable use strategies (Output 2.1.1), and establishment of protected areas (Output 2.1.4). The woodland and shrubs provide food and housing materials for the local communities. The 100 ha of forest rehabilitation activities will be launched in project year 3 and further 50 ha of natural woodland will be included in project year 4. The areas for indirect GHG emission mitigation potential are assumed as 150 ha of natural woodland.
- 3) **Agroforestry production:** The main project interventions related to carbon benefit are to rehabilitate coconut production system by establishing 414 ha of agroforestry sites in project year 3 and additional 414 ha of agroforestry in project year 4. Coconut is considered as a significant source for income generation and food security, however, ca. 40% of coconut population remain senile. These sites will also use alley cropping patterns combining pandanus and fruit trees (banana). The introduced Agroforestry system will also be combined with vegetable gardening and poultry production.

The carbon benefits from the project are estimated in terms of lifetime direct as well as indirect GHG emission avoided over the default time horizon of 20 years under the IPCC guideline and the guidance of the GEF Tracking Tools. For this project, the durations of implementation phase and the capitalization phase are defined as 5 years and 15 years, respectively. The carbon benefits are calculated using EX-Ante Carbon Balance Tool (EX-ACT).

Direct lifetime GHG emission avoided

In the GEF Tracking Tool for Climate Change Mitigation projects, direct lifetime GHG emissions avoided are the emissions reductions attributable to the investments made during the project's supervised implementation period, totalled over the respective lifetime of the investments. The following variables and assumptions are used for the calculation. The EX-ACT results file is available:

Variable	Value	Unit	Note
Lifetime length for direct GHG emission avoided	20	years	5 year implementation phase plus 15year capitalization phase
Climate, and Moisture regime	Tropical Moist	-	EX-ACT data
Dominant Regional Soil Type	Sandy Soils	-	EX-ACT data
Total area of target landscapes	5,300	ha	Project target (total land area of three project site islands)
Area for GHG emissions calculation in EXACT	1,060	ha	Current area of natural forest (150 ha), mangrove forest (82 ha) and the areas of agroforestry (828 ha), within the total area of target landscapes (5,300 ha)
Type of Vegetation for natural forest	Tropical Shrub land	-	EX-ACT default type
Initial state of degradation level for natural forest and mangrove forest	Low/Low	-	20% biomass lost (EX-ACT default)
Natural forest and mangrove forest degradation level without project	Moderate/Moderate	-	40% biomass lost (EX-ACT default)
Natural forest and mangrove forest degradation level with project	Very low/Very low	-	10% biomass lost (EX-ACT default)
Fire use/occurrence (mangrove forest, natural forest, agroforestry)	No	-	EX-ACT option, no data available
Target benefit area of mangrove forest	82	ha	Restoration activity begins in project year 3
Above-ground carbon stock for mangrove forest	86.6	tC/ha	Assumption with EX-ACT default data
Below-ground carbon stock for mangrove forest	42.4	tC/ha	Assumption with EX-ACT default data
Carbon stock in Litter, dead wood, and soil for mangrove forest	0.7/10.7/68.0	tC/ha	Assumption with EX-ACT default data

Target benefit area of natural forest	150	ha	Conservation and rehabilitation with assisted natural regeneration activities implemented from project year 3
Above-ground carbon stock for natural forest	32.9	tC/ha	Assumption with EX-ACT default data
Below-ground carbon stock for natural forest	13.2	tC/ha	Assumption with EX-ACT default data
Carbon stock in Litter, dead wood and soil for natural forest	3.65/0/39.0	tC/ha	Assumption with EX-ACT default data
Target benefit area of agroforestry system	828	ha	Rehabilitation of coconut, combined with gardening and poultry production begin from project year 3
Above-ground growth rate of coconut agroforestry	2.1	tC/ha/yr	Tier 2 value from FAO agroforestry database: Schiettecatte, per. com.
Below-ground growth rate of coconut agroforestry	0.5	tC/ha/yr	Tier 2 value from FAO agroforestry database: Schiettecatte, per. com.

The estimated values of direct lifetime GHG emission avoided during 20 years (5 years of implementation phase and 15 years of capitalization phase) are as follows:

Management regime	Area (ha)	Direct lifetime GHG emission avoided (tCO ₂ eq)
Mangrove restoration	82	15,350
Natural forest conservation and rehabilitation	150	11,017
Agroforestry production	828	140,263
TOTAL	1,060	166,630

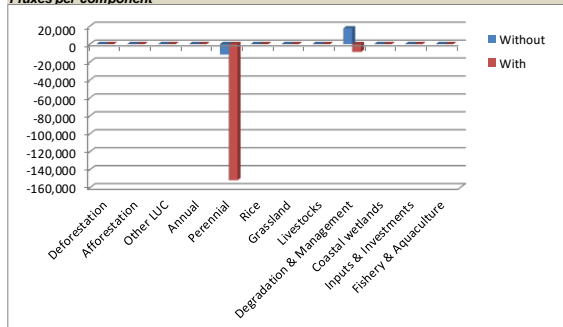
The direct lifetime GHG emission mitigation potential from the project is estimated as 166,630 tCO₂eq, which is equivalent to 7.9 tCO₂eq per hectare per year in the considered biome and time frame.

Table below provides the details of the direct lifetime GHG fluxes as calculated with the EX-ACT during 20 years of project lifetime:

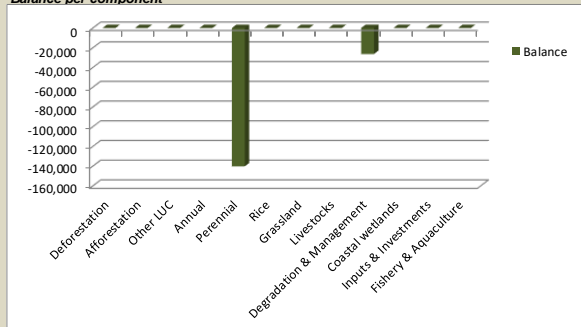
Project Name	Kiribati	Climate	Tropical (Moist)	Duration of the Project (Years)	20
Continent	Oceania	Dominant Regional Soil Type	Sandy Soils	Total area (ha)	1060

Components of the project	Gross fluxes			Share per GHG of the Balance					Result per year			
	Without	With	Balance	All GHG in tCO2eq			N ₂ O	CH ₄	Without	With	Balance	
	All GHG in tCO2eq			CO ₂	Soil	Other						
				Positive = source / negative = sink								
Land use changes												
Deforestation	0	0	0	0	0	0	0	0	0	0	0	0
Afforestation	0	0	0	0	0	0	0	0	0	0	0	0
Other LUC	0	0	0	0	0	0	0	0	0	0	0	0
Agriculture												
Annual	0	0	0	0	0	0	0	0	0	0	0	0
Perennial	-11,592	-151,855	-140,263	-140,263	0	0	0	0	-580	-7,593	-7,013	-7,013
Rice	0	0	0	0	0	0	0	0	0	0	0	0
Grassland & Livestocks												
Grassland	0	0	0	0	0	0	0	0	0	0	0	0
Livestocks	0	0	0	0	0	0	0	0	0	0	0	0
Degradation & Management												
Coastal wetlands	17,578	-8,789	-26,367	-20,868	-5,499	0	0	0	879	-439	-1,318	-1,318
Inputs & Investments	0	0	0	0	0	0	0	0	0	0	0	0
Fishery & Aquaculture	0	0	0	0	0	0	0	0	0	0	0	0
Total	5,986	-160,644	-166,630	-161,131	-5,499	0	0	0	299	-8,032	-8,332	-8,332
Per hectare	6	-152	-157	-152.0	-5.2	0.0	0.0	0.0				
Per hectare per year	0.3	-7.6	-7.9	-7.6	-0.3	0.0	0.0	0.0	0.3	-7.6	-7.9	-7.9

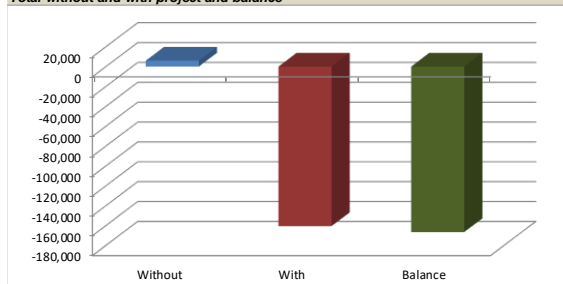
Fluxes per component



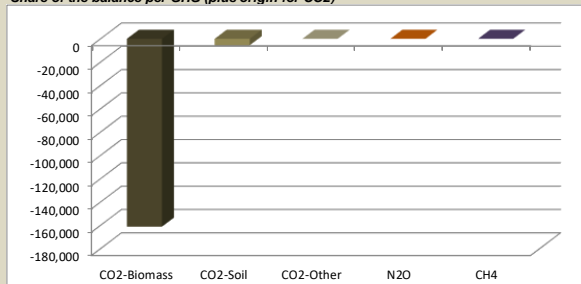
Balance per component



Total without and with project and balance



Share of the balance per GHG (plus origin for CO2)



Evolutions of land use / category (hectares - ha)

		Initial State	Without project	With project
Forest/Plantation		232	232	232
	Annual	0	0	0
Agriculture	Perennial	828	828	828
	Rice	0	0	0
Grassland		0	0	0
Other lands	Degraded	0	0	0
	Other	0	0	0
Wetlands		0	0	0
Total area (ha)		1,060	1,060	1,060

Uncertainty level

		% of uncertain
Gross fluxes		
	Without	5,986
	With	-160,644
Net balance		-166,630
		24.6

[Detailed matrices of changes](#)

Indirect lifetime GHG emission avoided

To date there is very little reliable baseline information, both qualitative and quantitative, available in Kiribati to calculate the indirect lifetime GHG emission avoided. During the early implementation period, the project will conduct necessary baseline surveys, including the assessment of potential target areas for the scaling-up purposes. Currently additional 150 ha of natural forest areas and 50 ha of mangrove forest have been expected to be intervened after the project and considered under indirect lifetime GHG emission avoided scenario. Indirect target benefit area of agroforestry system remains the same as the direct project intervention area (828 ha). The total area considered for the indirect lifetime GHG emissions calculation is 1260 ha. For the estimation of indirect lifetime GHG emission avoided during 20 years (5 years of implementation phase and 15 years of capitalization phase), the following variables and assumptions are used for the calculation:

Variable	Value	Unit	Note
Lifetime length for direct GHG emission avoided	20	years	5 year implementation phase plus 15year capitalization phase
Climate, and Moisture regime	Tropical Moist	-	EX-ACT data
Dominant Regional Soil Type	Sandy Soils	-	EX-ACT data
Total area of target landscapes	5,300	ha	Project target (total land area of three project site islands)
Indirect potential natural forest area via forest conservation and assisted regeneration in addition to the direct project intervention area	150	ha	Natural forest
Indirect potential mangrove forest area via forest conservation and assisted regeneration in addition to the direct project intervention area	50	ha	Mangrove forest
Area for GHG emissions calculation in EXACT	1,260	ha	Current area of natural forest (300 ha), mangrove forest (132 ha) and the areas of agroforestry (828 ha), within the total area of target landscapes (5,300 ha)
Type of Vegetation for natural forest	Tropical Shrub land	-	EX-ACT default type

Initial state of degradation level for natural forest and mangrove forest	Low/Low	-	20% biomass lost (EX-ACT default)
Natural forest and mangrove forest degradation level without project	Moderate/Moderate	-	40% biomass lost (EX-ACT default)
Natural forest and mangrove forest degradation level with project	Very low/Very low	-	10% biomass lost (EX-ACT default)
Fire use/occurrence (mangrove forest, natural forest, agroforestry)	No	-	EX-ACT option, no data available
Target benefit area and indirect potential area of mangrove forest	132	ha	Restoration activity begins in project year 3
Above-ground carbon stock for mangrove forest	86.6	tC/ha	Assumption with EX-ACT default data
Below-ground carbon stock for mangrove forest	42.4	tC/ha	Assumption with EX-ACT default data
Carbon stock in Litter, dead wood and soil for mangrove forest	0.7/10.7/68.0	tC/ha	Assumption with EX-ACT default data
Target benefit area and indirect potential area of natural forest	300	ha	Conservation and rehabilitation with assisted natural regeneration activities implemented from project year 3
Above-ground carbon stock for natural forest	32.9	tC/ha	Assumption with EX-ACT default data
Below-ground carbon stock for natural forest	13.2	tC/ha	Assumption with EX-ACT default data
Carbon stock in Litter, dead wood and soil for natural forest	3.65/0/39.0	tC/ha	Assumption with EX-ACT default data
Target benefit area of agroforestry system	828	ha	Rehabilitation of coconut, combined with gardening and poultry production begin from project year 3
Above-ground growth rate of coconut agroforestry	2.1	tC/ha/yr	Tier 2 value from FAO agroforestry database: Schiettecatte, per. com.

Below-ground growth rate of coconut agroforestry	0.5	tC/ha/yr	Tier 2 value from FAO agroforestry database: Schiettecatte, per. com.
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The estimated values of indirect lifetime GHG emission avoided during 20 years (5 years of implementation phase and 15 years of capitalization phase) are as follows:

Management regime	Area (ha)	Direct lifetime GHG emission avoided (tCO₂eq)
Mangrove restoration	132	24,709
Natural forest conservation and rehabilitation	300	22,035
Agroforestry production	828	140,263
TOTAL	1,260	187,007

The indirect lifetime GHG emission mitigation potential from the project is estimated as 187,007 tCO₂eq, which is equivalent to 7.4 tCO₂eq per hectare per year in the considered biome and time frame.

Table below provides the details of the indirect GHG fluxes as calculated with the EX-ACT during 20 years of project lifetime:

Project Name	Kiribati		Climate	Tropical (Moist)			Duration of the Project (Years)	20			
Continent	Oceania		Dominant Regional Soil Type	Sandy Soils			Total area (ha)	1260			
Components of the project	Gross fluxes			Share per GHG of the Balance					Result per year		
	Without	With	Balance	All GHG in tCO ₂ eq			Without	With	Balance		
	All GHG in tCO ₂ eq			CO ₂		N ₂ O	CH ₄				
	Positive = source / negative = sink			Biomass	Soil	Other					
Land use changes											
Deforestation	0	0	0	0	0	0	0	0	0		
Afforestation	0	0	0	0	0	0	0	0	0		
Other LUC	0	0	0	0	0	0	0	0	0		
Agriculture											
Annual	0	0	0	0	0	0	0	0	0		
Perennial	-11,592	-151,855	-140,263	-140,263	0	0	0	-580	-7,593	-7,013	
Rice	0	0	0	0	0	0	0	0	0		
Grassland & Livestocks											
Grassland	0	0	0	0	0	0	0	0	0		
Livestocks	0	0	0	0	0	0	0	0	0		
Degradation & Management	31,163	-15,581	-46,744	-36,794	-9,950	0	0	1,558	-779	-2,337	
Coastal wetlands	0	0	0	0	0	0	0	0	0	0	
Inputs & Investments	0	0	0	0	0	0	0	0	0	0	
Fishery & Aquaculture	0	0	0	0	0	0	0	0	0	0	
Total	19,571	-167,437	-187,007	-177,057	-9,950	0	0	979	-8,372	-9,350	
Per hectare	16	-133	-148	-140.5	-7.9	0.0	0.0	0.0			
Per hectare per year	0.8	-6.6	-7.4	-7.0	-0.4	0.0	0.0	0.0	0.8	-6.6	-7.4

Fluxes per component

Balance per component

Total without and with project and balance

Share of the balance per GHG (plus origin for CO2)

Evolutions of land use / category (hectares - ha)					Uncertainty level		
		Initial State	Without project	With project		% of uncertain	
Forest/Plantation		432	432	432	Gross fluxes		
	Annual	0	0	0	Without	19,571	34.9
Agriculture	Perennial	828	828	828	With	-167,437	22.8
	Rice	0	0	0	Net balance	-187,007	26.8
Grassland		0	0	0			
Other lands	Degraded	0	0	0			
	Other	0	0	0			
Wetlands		0	0	0			
Total area (ha)		1,260	1,260	1,260			

[Detailed matrices of changes](#)