



GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL SIZED PROJECT
TYPE OF TRUST FUND: GEF TRUST FUND

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PART I: PROJECT INFORMATION

Project Title:	Community-based Integrated Natural Resource Management Project		
Country(ies):	Fiji	GEF Project ID: ¹	
GEF Agency(ies):	FAO	GEF Agency Project ID:	639009
Other Executing Partner(s):	Ministry of iTaukei Affairs, Ministry of Agriculture, Ministry of Forests, Department of Environment, Ministry of Economy	Submission Date: Resubmission Date:	First submission: 18 July 2017 Second submission: 21 September 2017
GEF Focal Area(s):	CCM, LD	Project Duration (Months)	48
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP <input type="checkbox"/>	
Name of parent program:	NA	Agency Fee (\$)	201,345

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
LD-3 Program 4	GEFTF	566,225	3,200,000
CCM-2 Program 4	GEFTF	1,553,200	10,200,000
Total Project Cost		2,119,425	13,400,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To promote community-based integrated natural resource management at landscape level to reduce land degradation, enhance carbon stocks and strengthen local livelihoods in Ra and Tailevu provinces						
Project Component	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
1. Strengthening local level capacities for integrated natural resource management	TA	1.1 Enhanced local level capacities for integrated natural resource management <i>Indicator: Capacity development score (the baseline to be set during the project preparation phase)</i>	1.1.1 Training programme on climate smart agriculture practices/techniques implemented through Farmer Field Schools (FFS) across 60 villages in the project provinces, focusing on SLM and CCM 1.1.2 Training programme on agroforestry, forest protection and improved management measures implemented through the Forest Training Centre covering 60 villages in the project provinces	GEFTF	200,000	3,000,000

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

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

³ Financing type can be either investment or technical assistance.

2. Community-based Integrated Natural Resource Management	TA	<p>2.1 Planning process for INRM strengthened</p> <p><i>Indicator: At least 60 INRM plans prepared</i></p> <p>2.2 At least 71,500 ha brought under community-based integrated natural resource management</p> <p><i>Indicator: At least 71,500 ha under INRM; 1,338,095 tCO₂eq sequestered</i></p>	<p>2.1.1 Utilizing the recently developed participatory land use planning guidelines, prepare nine district level Participatory Land Use Plans (PLUPs)</p> <p>2.1.2 Based on the PLUPs, village level integrated natural resource management (INRM) plans covering 71,500 ha prepared</p> <p>2.2.1 INRM plans implemented across landscapes</p> <ul style="list-style-type: none"> - Climate smart and sustainable agriculture implemented across at least 15,000 ha - Agroforestry across at least 1000 ha - Improved rangeland management across 10,000 ha - Sustainable Forest Management across existing healthy forests covering 35,000 ha - Restoration of 10,500 ha of degraded forests (including 700 ha of mangroves) - At least nine community-based enterprises strengthened through value-addition activities for provision of improved/alternative livelihoods 	GEFTF	1,680,000	9,500,000
3. Monitoring, evaluation and lessons dissemination	TA	<p>3.1 Adaptive management ensured and key lessons shared</p> <p>3.1.1 Project progress continually monitored, mid-term and final evaluation conducted</p> <p>3.1.2 Project achievement and results recorded and disseminated</p>		GEFTF	138,501	600,000
		Subtotal			2,018,501	13,100,000
		Project Management Cost (PMC) ⁴		GEFTF	100,924	300,000
		Total Project Cost			2,119,425	13,400,000

If Multi-Trust Fund project: PMC in this table should be the total and enter trust fund PMC breakdown here (LD-26,963, CCM-73,961)

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Recipient Government	Ministry of iTaukei Affairs	In-kind	1,500,000
Recipient Government	Ministry of Agriculture	Grant	2,000,000
Recipient Government	Ministry of Agriculture	In-kind	1,000,000
Recipient Government	Ministry of Forests	Grant	4,000,000
Recipient Government	Ministry of Forests	In-kind	1,500,000
GEF Agency	FAO	In-kind	300,000
GEF Agency	FAO AAD	Grant	3,100,000
Others	SPC/GIZ	Grant	Unknown
Donor Agency	PHAMA-AusAID	Grant	Unknown
Total Co-financing			13,400,000

⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) ^{b)}	Total (c)=a+b
FAO	GEFTF	Fiji	LD	-	566,225	53,791	620,016
FAO	GEFTF	Fiji	CCM	-	1,553,200	147,554	1,700,754
Total GEF Resources					2,119,425	201,345	2,320,770

a) No need to fill this table if it is a single agency, single trust fund, single focal area and single country project

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

E. PROJECT PREPARATION GRANT (PPG)⁵

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

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

Project Preparation Grant amount requested: \$100,000					PPG Agency Fee: 9,500		
GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee ⁶ (b)	Total c = a + b
FAO	GEFTF	Fiji	LD	-	26,716	2,538	29,254
FAO	GEFTF	Fiji	CCM	-	73,284	6,962	80,246
Total PPG Amount					100,000	9,500	109,500

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁷

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	NA
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	71,500 hectares
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	NA
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	NA
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO _{2e} mitigated (include both direct and indirect)	1,338,095 tCO _{2e} q (direct);

⁵ PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF up to \$1 mil; \$100k for PF up to \$3 mil; \$150k for PF up to \$6 mil; \$200k for PF up to \$10 mil; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

⁶ PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

⁷ Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the *GEF-6 Programming Directions*, will be aggregated and reported during mid-term and at the conclusion of the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and/or SCCF.

Corporate Results	Replenishment Targets	Project Targets
		623,982 tCO ₂ eq (indirect);
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	NA
	Reduction of 1000 tons of Mercury	NA
	Phase-out of 303.44 tons of ODP (HCFC)	NA
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	NA
	Functional environmental information systems are established to support decision-making in at least 10 countries	NA

PART II: PROJECT JUSTIFICATION

Project Overview

1. Project Description

The global environmental problems, root causes and barriers that need to be addressed

General context (forestry and agriculture) and background:

According to FRA 2015, forest cover in Fiji amounts to about 1 million ha, this is about 60% of the total land area. This includes primary forests⁸ amounting to 411, 412 ha and other naturally regenerated forests⁹ amounting to 451, 613 ha. Forest ecosystems play an important role in rural livelihoods/subsistence through provision of timber (construction materials), fuelwood and Non-Timber Forest Products (food, medicine, etc.), generally coming from the natural forests. Formal forestry sector, through exports, contributes about an average of 6.8% to the national GDP since 2014. The export items include sawn timber, woodchips, plywood, veneer, etc. More than 90% of the exported timber comes from processed exotic plantations (pine and mahogany) - pine plantations and hardwood plantations together amount to about 150,000 ha. The native species processed for export are *Dakua makadre*, *Dakua Salusalu*, *Kaudamu* and *Sandalwood*, combine they amount to only 6% of the forest sector export revenue. These species are extracted generally through selective logging in the natural forests. In terms of ownership, 90% of natural forests are communally owned through traditional Fijian communal landowning units. Plantations of exotic softwoods and hardwoods are generally established on leased land. ***The project implementation will mainly cover natural forests (other naturally regenerated forests) that are at different levels of degradation*** (including mangroves). Total area covered by mangroves in Fiji amount to about 57,000 ha.

In the past decade, the agriculture sector has had an average contribution of about 10% to the national GDP. Traditionally, subsistence agriculture and sugarcane productions have been the two pillars of Fiji's agriculture sector. But due to various reasons (e.g. natural disasters, difficulty in coping with trade conditions) the performance of the sugar industry has been in decline. Though subsistence agriculture still takes a central role in the sector, there has been an increased transformation to semi-commercial farming, as evidenced by increased share of other crops subsector. Other crops subsector are primarily driven by root crops and horticulture industry. The livestock sector has generally been dominated by beef and dairy production, but both the industries are in decline. The industry currently relies on imports to meet domestic demand. Whereas, pork, poultry and goat production has been growing consistently. The other crops and livestock subsectors together contribute to about 6.8 % of the national GDP. ***The project will primarily target both subsistence and community-driven semi-commercial farming for introducing climate smart agriculture and agroforestry practices.***

⁸ Naturally regenerated forest of native species where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.

⁹ Naturally regenerated forest where there are clearly visible indications of human activities.

Global environmental problems:

Deforestation and land degradation in forests and peripheries of forest frontiers are key environmental problems faced by Fiji. The rate of degradation in the forest peripheries, in this context, also refers to loss of vegetation cover in agroecosystems (including rangelands), and the continued loss of productivity in agricultural lands, impacting local livelihoods significantly. Poor agricultural land practices (refer below) have contributed to degradation of agricultural lands and their productivity, and the vicious cycle of resource depletion and land degradation.

The current deforestation rate in Fiji is relatively modest and at face value, cannot be considered alarming (forest cover losses per year is less than 0.1% per year, source: SOPAC, 2012), but these calculations take into account exotic plantations and do not directly reflect the loss of natural forests (from carbon losses perspective, it is also important to note that higher level of carbon is sequestered in the natural forests). There has been a significant loss of natural forests due to the drivers listed below. In terms of forest degradation in natural forests, there has been a substantial level of forest degradation in the country, as Fiji's second communication to the UNFCCC and other related reports (FRA 2010, SOPAC 2012) confirm, more than deforestation, forest degradation remains the most important source of emissions from the forest sector in Fiji.

The project will target Ra and Tailevu provinces (refer to the map under Annex D). Rate of degradation has been quite high in these provinces. The project sites will be across the Navauvadra and Tomaniivi-wabu forest reserves down along the upper Rewa River and into Tailevu province towards the lowlands including mangrove zones. The forests are categorized as tropical dry forest across the Ra province and turns increasingly moist in the lower regions of Tailevu province. In both the provinces there is very minimal land under any form of management practices/plans.

Root causes:

Deforestation and land degradation in Fiji is caused by a myriad of drivers. The drivers relevant to the project provinces are listed below;

- Subsistence and commercial agriculture; agriculture is identified as the main driver of deforestation in Fiji. This is due to the extensive use of clear cutting methods for shifting cultivation. The need to move from one piece of land to another is mainly caused by poor soil conservation and other agricultural practices (e.g. intensive slope land agriculture, monocropping). This is the primary cause of forest clearing at the forest frontiers, and for continued degradation of agricultural lands. There have been different strategies proposed to address both the above drivers, this includes sustainable farming practices/techniques to maximize production without degrading the land, diversifying crops, agroforestry, and overall better land-use planning. But these strategies have not been implemented adequately due to the barriers described below.
- Pastoral practices; dairy farming and livestock production (including goats) with free roaming cattle and goats have caused heavy forest degradation mainly due to the effects of browsing on natural regeneration. Lack of suitable rangeland management practices has resulted in the cattle moving on further and further into forests for pasture. Improved rangeland practices and agro-silvo-pastoral systems would be the key to addressing this driver.
- Illegal and unregulated logging; this is a major cause of forest degradation. This is due to two different reasons; i) licensed forest projects/leasings' transgressing the agreed boundaries; ii) communities harvesting timber for local use (e.g. construction) using practices that cause considerable damage to the forests. The former can be addressed through training of community wardens and adopting community-driven forest protection measures. The latter can be addressed through improved forest management practices at community level.
- Unsustainable extraction of Non-Timber Forest Products (NTFPs); as mentioned above, local communities depend on NTFPs for various different reasons. Excessive and poor NTFPs extraction practices is another significant driver of forest degradation in Fiji. Improved extraction practices and sustainable production of high value multiple purpose species would be an ideal strategy to address this driver.

Barriers:

The baseline and cofinancing projects described below are working towards addressing the above mentioned drivers, in spite of them, there remain a couple of barriers that have not been adequately addressed;

Lack of capacities at community level

Despite the extensive extension programmes undertaken by the departments under the Ministry of Agriculture and Ministry of Forestry, at the community level, there is still a significant gap in capacities related to sustainable and climate-smart agriculture practices, rangeland management and sustainable forest management measures (including sustainable harvesting of NTFPs). This is a significant barrier considering the fact that majority of land is communally owned and managed. During the project preparation phase, detailed capacity needs assessment at the community level will be conducted to identify the specific gaps and needs. Indicative areas of training are listed under the component description below.

Lack of landuse planning at local level

As highlighted above, majority of land is communally owned and managed, but there is very little land-use planning that takes place either at district or village level. This has exacerbated the ongoing unsustainable resource utilization practices and has prevented any coordinated efforts to change the utilization/management patterns. One of the cofinancing partners (refer below) has developed Participatory Land Use Planning guidelines, and it is important to utilize the guidelines and initiate integrated landuse planning at local level.

Lack of opportunities for market-oriented sustainable/alternative livelihoods

One of the major barriers in ensuring sustainable resource management at community level is the lack of adequate livelihood opportunities for local populations living in and around the forests. Time and again, it has been demonstrated around the world that with adequate economic incentives local communities would be willing to participate and engage in sustainable management of natural resources. The main resource based livelihoods in the project sites is related to agriculture (subsistence and semi-commercial) and forest resource extraction, but there are not enough value chain focused efforts to diversify and improve livelihoods, this severely limits the economic benefits that can be derived by the local communities. The local community-based enterprises that exist requires further strengthening, especially in the area of market access and value-addition (primary and secondary processing).

Baseline scenario and associated baseline projects

The activities carried out by the Ministry of iTaukei Affairs, Ministry of Forestry and Ministry of Agriculture form the main baseline for this GEF project.

Ministry of iTaukei Affairs (MTA)

The Ministry is responsible for the preservation of Fijian culture and for the economic and social development of indigenous Fijians. The Ministry works at all levels; **national** (MTA), **divisional** (iTaukei Land & Trust Board), **provincial** (iTaukei Affairs Board/ Roko Tui or provincial commissioners), **District** (Mata ni Tikina or Tikina Administrator), and **Village** (Turaganikoro or Village Administrator). Following the national discourse and policy directions advocating sustainable management of natural resources by the resource owners themselves, the Ministry is gradually establishing Yaubula Management Support Teams (YMSTs) at the village, district and provincial levels. These are community-based institutions and are co-management structures that better facilitate the efforts of government extension officers and conservation officers to work with community leaders and chiefs. The MTA has made this YMST model a prerequisite for all villages in Fiji (via the Village Bylaw) to enhance engagement with communities to strengthen natural resource stewardship. The YMST feeds into the National Resource Owners Committee, which feeds into the provincial councils, which feeds into the Ministry, which feeds into the national multiagency committees via the Permanent Secretary of iTaukei Affairs. These activities form the central baseline for the project's engagement with the local communities. The in-kind contribution of MTA amounts to USD 1,500,000 for the entire project period.

Ministry of Agriculture (MoA)

MoA's work through the Division of Land Resources Planning and Development, the Division of Crop Extension and the Division of Animal Health and Production will form the baseline for activities on climate-smart agriculture, rangeland management and agroforestry. MoA's in-kind and grant contribution will amount to USD 1,000,000 and USD 2,000,000 respectively, for the project period. These activities are part of the Ministry's regular programme.

Division of Land Resources Planning and Development: The division has established demonstration farms for different agroforestry systems, this includes contour farming and alley cropping on slopes, and silvopastoral systems on rangelands. Based on these farms, the department has initiated capacity building activities in agroforestry.

Division of Crop Extension: The division has 20 crop programmes focusing on increasing production. In addition to a programme to increase availability of extension assistance to women. Other key baseline activities carried out by the division include provision of agro-inputs and assistance to prepare land to introduce climate-smart agriculture practices (through land preparation facility).

Division of Animal Health and Production: The division's activities related to provision of housing and fencing materials and fodder crop seeds (including legumes) would form the baseline for implementing improved rangeland management practices.

Ministry of Forests (MoF)

MoF's baseline activities amount to USD 1,500,000 in-kind and USD 4,000,000 in grant. The baseline activities include the following.

Awareness raising- community-level awareness raising, including engagement with school and women groups to increase awareness on SFM related issues; institutional training- refresher training for staff at national and provincial level, especially on integrated forest management; extension services related to silviculture prescriptions, selective low impact logging and establishment of agroforestry farms; establishment of community nurseries for forest rehabilitation; establishment of model sites that demonstrate rehabilitation of degraded coastal and mangrove wetlands and publication of guidelines for restoring degraded coastal and mangrove wetlands; and development of national MRV (through funding from World Bank- FCPF). *The MRV system will be utilized to measure the carbon benefits generated through this project*

In addition, the following activities supported by other partners would form the cofinancing for this GEF project.

Co-financing sources	Brief description of co-funded baseline project activities	Type co-financing	Amount (USD)
SPC/GIZ	<p>The expanded 'Coping with climate change in the Pacific Island Region (CCCPiR)' programme aims to strengthen the capacities of Pacific member countries and regional organizations to cope with the impacts of climate change. The programme runs from 2009-2018.</p> <p>The programme has developed Participatory Land-Use Planning Guidelines. This will be utilized for the district level land-use planning process. In addition, the programme has identified certain root crops that are climate-resilient, these crops will be integrated into the agroforestry system implemented in this project.</p>	Grant	To be confirmed during PPG

Co-financing sources	Brief description of co-funded baseline project activities	Type co-financing	Amount (USD)
	Exact Cofinancing amount has not been determined, this will be provided at the CEO endorsement stage		
PHAMA	<p>The Pacific Horticultural and Agricultural Market Access Program (PHAMA) funded by the AusAID, focuses on maintaining and improving existing market access by developing the capacity of the public and private sectors and facilitating access for novel agricultural — based products into new markets. The program's current funding runs through 2017, and the next phase is expected to begin in 2018.</p> <p>The program will support the GEF project in terms of facilitating market access for the products targeted through the enterprise strengthening activities.</p>	Grant	To be confirmed during PPG
FAO	<p>FAO's in-kind support will be through staff time, provision of facilities and services.</p> <p>FAO's Action Against Desertification (AAD) project funded by the EU runs from 2015-2019, the key co-financing activities include the following;</p> <ul style="list-style-type: none"> -Detailed institutional capacity needs assessment in the context of sustainable land/forest management and restoration at landscape level - Capacity building of government institutions and NGOs based on the needs assessment - Strengthening of nursery stations for both forest restoration and agroforestry - Alternative livelihood activities focusing on products like cocoa, vanilla and honey 	<p>In-kind</p> <p>Grant</p>	<p>300,000</p> <p>3,100,000</p>

UNDP/GEF Project "Implementing a 'Ridge to Reef' Approach to Preserve Ecosystem Services, Sequester Carbon, Improve Climate Resilience and Sustain Livelihoods in Fiji (Fiji R2R)"

This GEF-5 project's implementation has just begun, the project's targeted outcomes are; 1.1 Improved management of effectiveness of existing and new protected areas, 1.2 Improved financial sustainability for terrestrial and marine protected areas, 2.1 Carbon stocks restored and enhanced in priority catchments, 2.2 Sustainable forest management achieved through innovative market-based schemes, 3.1 Integrated catchment management plans covering conservation of biodiversity, forests, land and water formulated & implemented in priority sites, 3.2 Strengthened governance for integrated natural resources (land, water, biodiversity, forests management), and 4.1 Improved data and information systems on biodiversity; land, forests, coastal and marine management; climate change and best practices.

The activities under the project that would form baseline for the proposed project will be as follows:

- Strengthened role of National Planning Office in policy level coordination and consultation processes for integrated natural resources management, and approval of Integrated Natural Resources and Catchment Management Policy (these national level activities would form the basis for district and village level land-use planning processes under this proposed project)
- Key decision makers, resource owners and general public provided with relevant information on monthly basis through popular media on natural resources issues, with access to more detailed information through the Department of Environment (DoE) website (these awareness raising and knowledge development activities would be leveraged for generating local level interest and ownership of issues at community level)
- National and provincial level government staff trained in INRM (development of govt. capacities- especially at local govt. level- will be leveraged for community level capacity building activities under the proposed project)

In addition to the above, the proposed project will ensure coordination and learning of key lessons from the R2R project's activities on a) Reforestation and enhancement of carbon stocks related activities b) Sustainable Forest Management activities (e.g. improving forestry operations, etc.). The coordination will be ensured through periodic participation of the R2R project lead in the Project Steering Committee (PSC) meetings of the proposed project (to be detailed during the CEO Endorsement Stage).

The proposed alternative scenario and a brief description of expected outcomes and components

The project will build on the baseline projects and the project objective will be delivered through the following components.

Component 1: Strengthening local level capacities for integrated natural resource management

Most of Fiji's forest and agriculture land are under traditional community land tenure. Therefore, for effective management of Fiji's landscapes, building sustainable mechanisms to strengthen local communities' and government support agencies is key. This component will focus on ensuring the capacities at community level for implementation of climate-smart agriculture, agroforestry, rangeland management, forest protection, SFM and restoration measures are effectively strengthened. At least 60 villages will be targeted under the training programmes. The training programmes related to agricultural practices will be implemented through the Farmer Field Schools (FFS). In order to do this, the project will build on past experiences on implementation of such schools in the country and ensure that they incorporate issues of global environmental benefits. The project will develop and implement training of trainers to facilitate farmers' field schools that aim to strengthen community agriculture and forestlands with the aim of maximizing both global environmental benefits and socioeconomic benefits. Such training of trainers approach will be institutionalized through appropriate government institutions. Similarly, the project will also develop and implement trainings related to agroforestry and forest management/protection/restoration activities will be delivered through the Forest Training Centre (FTC), building on global and regional good practices. The specific areas of training will be linked to key actions and priorities identified by community based natural resources management plans that will be developed under Component 2 of this project.

Component 2: Community-based integrated natural resource management

The component will aim to strengthen the planning processes related to Integrated Natural Resource Management (INRM). This will be multi-layered, Participatory Land Use Plans (PLUPs) will be developed at district level (nine districts), based on the PLUPs, individual village level INRM plans (60 plans) will be developed. Multi-layered planning will ensure streamlining of planning process, and will facilitate easier replicability and scaling up. The project will ensure that such bottom up plans are aimed to also maximize multiple global environmental benefits and that communities also fully consider priorities and plans of adjacent communities and that there considerations for upstream and downstream impacts of such plans.

The component will aim to bring at least 71,500 ha through implementation of the 60 integrated natural resources management (INRM) plans. This will include the following:

- *Climate smart agriculture* (primarily related to agricultural crop production); practices to be implemented envisaged at this stage are improved soil management, crop nutrient management, and water management
- *Agroforestry* (as an interface between agricultural land and forest frontiers); site specific and suitable practices will be implemented based on assessments carried out during the project preparation phase. It is expected that contour farming, alley cropping, and agro-silvo-pastoral systems would be implemented
- *Rangeland management*; controlling and influencing the movement of livestock (e.g. water development, fencing, stock trails, and herding) and improved feed crop management (closely related to agroforestry activities)
- *Sustainable Forest Management*; this will include forest protection measures (through patrolling by community wardens) to ensure transgressions are not committed by leaseholders/concessions (specifically spillage from exotic plantations) and forest fires do not get started inadvertently or go uncontrolled (measures include creation and maintenance of fire lines, deployment of fire watchers, etc.) and sustainable extraction of timber (e.g. low impact logging, systematic and planned harvesting) and NTFPs. Sustainable extraction of NTFPs will be facilitated through ecological assessments (impacts of NTFPs harvest, dynamics under the impacts and management practices that can mitigate negative impacts and promote positive impacts) and market assessments (economic viability of products and potential for diversification). The SFM activities will be through forest managements plans integrated under the village INRM plans.
- *Forest restoration*: restoration of degraded forests will be carried out through planting (site suitable indigenous species) and assisted natural regeneration, forest cover in the terrestrial forests and mangroves will be increased by 10% and 12% respectively. Restoration will be geared towards preserving indigenous agrobiodiversity and at the same time providing multiple benefits (e.g. NTFPs, timber for construction) to local communities.
- *Community-based enterprises*: At least nine value chains will be targeted for diversifying and improving local livelihoods, the value chains to be targeted will be chosen after a careful analyses (including economic viability) during the project preparation phase (at this point, indicative products include vanilla, forest cocoa, mud crab, etc.). The enterprise strengthening activities will include specific trainings for primary and secondary processing of the products, accessing market information and ensuring adequate market access. The enterprises will be connected with the respective producer associations/councils (usually supported and subsidized by the govt.) (refer to the stakeholder table).

Such plans will also include identifications resources required by communities to implement such plans and community action plans to generate such resources- including linkages to government and donor programmes to support such plans.

The project will ensure that effective monitoring of plans' implementation are undertaken, and the approach and financing for such monitoring mechanism at local village level and across the landscape (across all 60 villages) through a combination of community and government involvement will be detailed during full project development process.

Monitoring, evaluation and lessons dissemination

This component will ensure project's progress is tracked and periodic evaluations are conducted for adaptive management. Under this component, project results and achievements will be disseminated for replicability and scaling up.

Alignment with GEF focal area strategies

CCM 2 Program 4: The project aims to address root causes of forest carbon emission through SLM activities. The project will also protect and enhance carbon concentration and CO2 sequestration in natural forests of Fiji.

LD 3 Program 4: The project will support multi-stakeholder landscape planning at district and village levels, and aim to increase vegetation cover in production landscapes through improved agricultural practices and agroforestry.

Incremental reasoning and expected contributions from the baseline, the GEFTF and cofinancing

Component 1:

Activities under this component will build on community level awareness raising (MoF), institutional capacity building activities for SLM/SFM and forest restoration (FAO AAD) and demonstration activities (MoF, MoA) under the baseline and co-financing initiatives, GEF incremental resources will be utilized to expand the capacity building to the community level in a streamlined manner, to ensure local communities have the adequate capacity to implement INRM plans at the village level. Community level participation will be ensured through MTA's baseline work. Without GEF resources, capacity gaps at the community level will remain. In particular, communities will be made aware of Fiji's international commitments and obligations related to global environmental objectives and roles and responsibilities of all in the country. The project will ensure that achievement of global environmental benefits is central to the capacity building programmes it supports, and that these are institutionalized in appropriate government agencies.

Component 2:

GEF incremental actions on strengthening the planning process for INRM builds on the PLUP guidelines (SPC/GIZ), and planning/governance structure developed for community based resource management (MTA). This is one of the critical incremental aspects of the project, utilizing the PLUP guidelines, community-based participatory land use planning will be introduced at different layers (refer the innovativeness section below). GEF incremental resources spent on implementing the INRM plans will build on extension activities (MoA, MoF), agro-inputs (MoA), livestock management related inputs (MoA), nurseries (MoF, FAO AAD), and mangrove rehabilitation activities (MoF) carried out under the baseline and cofinancing initiatives. As noted above, the issue of achieving global environmental benefits, and their monitoring at local and at landscape level will be strengthened by this project. Cofinancing activities on alternative livelihoods (FAO AAD) and market access improvement (PHAMA) will directly feed into the community enterprises strengthening activities under the GEF project. Without GEF incremental resources, 71,500 ha in the two project provinces will remain under the threat of continuous degradation (without any management plans), resulting in the loss of vital ecosystem services and good (affecting the livelihoods and wellbeing of the local communities) and in carbon emissions.

Global Environment Benefits (GEBs)

Overall, through the project, about 71,500 ha will be brought under INRM resulting in significant reduction in forest and land degradation, ensuring the sustained flow of key ecosystem services (including carbon sequestration). The GEBs under the respective focal areas are as follows.

Climate Change Mitigation:

- Restoration of terrestrial forest area of 9,800 ha, with forest cover increase of 10% (i.e. 980 ha) and restoration of mangroves covering 700 ha, with cover increase of 12% (i.e. 84 ha), 494,600 tCO₂eq will be sequestered
- Through avoidance of deforestation in the 35,000 ha brought through forest protection measures under sustainable forest management, 41,071 tCO₂eq.
- Through the improved agricultural crop production practices under Climate Smart Agriculture in 15,000 ha will mitigate 293,417 tCO₂eq.
- Through improved agroforestry systems in 1000 ha, 179,007 tCO₂eq will be sequestered.
- Improved rangeland management in 10,000 ha will contribute to the GHG reduction of 330,000 tCO₂eq.

Calculation of carbon benefit is detailed in Annex II.

Measurement: The measurement of the carbon benefits will be through the national MRV system developed from World Bank- FCPF funding.

Leakage: A) Reduced deforestation in targeted natural forests from transgressions carried out by licensed leaseings would not automatically increase logging in the leaseings, as the monitoring and enforcement of management plans within the leaseings are quite strong. The project approach being increased community-level forest protection measures across the landscapes in the provinces (FAO AAD project and this project cover majority of Ra and Tailevu provinces)

would also prevent leaseholders moving their transgressions to other natural forests. B) With improved SFM practices at community level, local level unregulated logging will be prevented. Given the local nature of the issues, there is very little scope for it to move on to other forest areas.

Land Degradation:

- Climate smart agriculture will be implemented over 15,000 ha
- Agro forestry will be implemented over 1,000 ha
- Improved rangeland practices will be implemented across 10,000 ha.

Implementation of these practices in an integrated manner would result in reduced loss and degradation of key vegetation, and continued provision of key goods and services, especially in the context of local livelihoods.

Innovativeness

The resource management and utilization techniques/practices to be implemented in the project have been tried successfully elsewhere and are not innovative in itself. The innovative part of the project lies in implementing participatory resource management planning at multiple levels – both at local and landscape levels. Traditionally, one of the bottlenecks in translating participatory village resource planning and management impacts to the larger landscape level lies in the individual villages operating in silos without any linkages. In this project, a common district level PLUPs will be developed (involving all the villages effectively), within this overall framework the individual villages will prepare local level INRM plans, translating into wider landscape level benefits.

Sustainability and potential for scaling-up

The sustainability of the project will be ensured through a) capacities developed (both institutional- through cofinancing and community levels) (b) participatory governance structure at local levels and their ownership of the project results and sustenance beyond the project period and c) livelihood benefits (through market oriented value chains) generated through the project. As mentioned above, the development and implementation of the plans (at district and village levels) will be through a common template and this coupled with the institutional capacity building co-financing activities and alignment with national policies will enable smooth scaling up of activities undertaken in the project.

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

The below table provides an overview of relevant stakeholders (including CSOs and indigenous people).

Stakeholder	Type of engagement in project preparation
Ministry of iTaukei Affairs	Main project executing partner. Will play the central role in coordinating with the local communities in the project preparation process.
Ministry of Forests and Ministry of Agriculture	Key project executing partners. The technical departments under the Ministries and their activities form the central part of the project baseline. Their involvement in the project preparation process would be constant.
Department of Environment	Office of the GEF operational focal point. Would play the key coordination role between the government executing partners.
Local communities (communities are primarily indigenous people)	Through ground level staff of Ministry of iTaukei affairs (esp. conservation officers and through natural resource councils) local communities would be involved in extensive consultations to understand their perspectives in the contexts of threats to the forests and potential involvement in the project implementation, ensuring ownership of the project design.
SPC/GIZ	Cofinancing partner. Would provide inputs into developing project components

PHAMA	Cofinancing partner. Would provide inputs specifically designing value chain related activities
CSOs	Since local communities have direct linkages with the Ministry of iTaukei affairs, CSOs's role would be more in terms of bringing in different producer associations into the project design process (e.g. Fiji Beekeepers Association, National Centre for Small and Micro Enterprises Development, Fiji Organic Association, etc.). These producer associations will play a significant role in linking up the community enterprises with both services providers and markets, along the selected value chains. Detailed list of CSOs will be provided during the CEO Endorsement Request stage.
Private sector	Consultations will be held with private sector parties (e.g. service providers) relevant to the value chain improvement activities, to enable designing the corresponding project outputs under Component 2.

3. *Gender Equality and Women's Empowerment.* Are issues on gender equality and women's empowerment taken into account? (yes ☒ /no ☐).

It is clearly understood that women play a critical and central role in farm practices, natural resource extraction and use at local level. Often, their perspectives and priorities are not considered when determining management practices and approaches. The main way that gender issues will be incorporated into project preparation process is through the adoption and use of participatory approaches in all important decisions and activities in preparing the document. The project design will also ensure that effective representation of both genders is achieved in all project activities (especially considering the fact that women are key change agents in terms of adopting new practices). The project design will follow the guidelines provided under FAO Policy on Gender Equality and directions under Regional Gender Strategy and Action Plan 2017-2019 for Asia and the Pacific. Reporting on project activities, outputs and outcomes will also be disaggregated by gender (where applicable), so that performance in this respect can be monitored.

4 Risks.

The following potential risks and mitigation measures have been identified, at this stage. These will be reviewed and updated during the project preparation phase.

<i>Risk</i>	<i>Rating</i>	<i>Mitigation Measure</i>
Lack of close and collaborative cooperation between the key institutional stakeholders	Low	Close and collaborative cooperation between many institutional stakeholders will be essential for the project to achieve its stated goal and objectives. This will be achieved through involvement of all stakeholders from the beginning of the project preparation process and through establishment of a working group for the project implementation under the project steering committee. A communication strategy will also be developed and regular meetings and presentation of project results in different phases of the project implementation will be organized.
Unclear responsibilities of institutions at national and local level	Medium	Clearly defined and prescribed responsibilities of different institutions as well as involvement of all of responsible institutions will be clarified during the project preparation.
Reluctance of local population to involve and take ownership of the project activities	Low to Medium	Local communities and their representatives will be effectively engaged from the onset of the project preparation process. Their perspectives and concerns will be taken into account in the project

		design, and sensitization activities carried out during the project preparation phase would communicate the socio-economic benefits to be delivered through the project.
Natural changes in ecosystems and associated species due to gradual changes in climate and extreme weather events.	Unknown	The crop and tree species used for restoration and agroforestry will be selected based on the local site suitability and their resilience to the most likely impacts of climate change (e.g. outbreak of pests and diseases, changes in rainfall, etc.)

5. Coordination.

EU-Reforest Fiji: The project, funded by the European Union (EU), and implemented by the Secretariat of the Pacific Community (SPC) aims to establish 6,010 hectares of tree plantations of various models and designs. This includes on-farm plantations, which can provide certain insights to be utilized in agroforestry practices in the proposed GEF project.

REDD+ - Forest Conservation in Pacific Countries: The project implemented by GIZ and funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), has been involved in carrying out forest trails over 300 ha in Nakavu, understanding how different forest management techniques/practices affect carbon stocks of forests in Fiji. Based on the trails, a Fiji Harvesting Code is being developed and will be released in the later part of 2017. Through coordination with this project, on field forest management measures implemented through the proposed project will be most appropriate to the Fijian context.

The Nakauvadra Community Based Reforestation Project: The project implemented by Conservation International, aims to reforest an area of 1,135 ha in Ra province, and is nearing its closure. The key lessons learnt from the project will be taken into account for the full-scale project design.

During the project preparation phase, more detailed analyses would be conducted to ensure effective coordination with all relevant initiatives. This will be further clarified during the request for CEO endorsement.

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

Fiji's National Action Plan (NAP) to combat desertification/land degradation lists out a set of policy objectives which includes; i) the indigenous forests will be protected and managed for their biodiversity, conservation and production values by adopting Sustainable Forest Management (SFM) principles, ii) sound land use practices to maintain and sustain soil qualities. The project directly addresses these objectives through its proposed SFM activities in natural forests and climate-smart agriculture practices.

Fiji's second National Communication to the UNFCCC articulates the need to ensure all stakeholders are involved in planning and implementation of sustainable land management approaches for mitigation actions. Specifically highlighting the need to adopt participatory and integrated approaches. This project adopts this approach to implement SLM/SFM practices on the ground.

The project is aligned with the Green Growth Framework for Fiji, the framework identifies improved management and restoration of natural forests and sustainable and efficient agricultural production at local levels (including agroforestry) as key focus areas.

The Agriculture Sector Policy Agenda (Fiji 2020) mentions 'Building Modern Organized Agriculture' as an objective, and recommends adopting the Farmer Field School (FFS) approach and agroforestry, among other measures, to reach

this objective. This project will adopt FFS approach for local level capacity building and implement agroforestry as a part of the integrated resource management plans.

The project is also aligned with Fiji's Forest Policy, specifically the two policy areas stated in the document; i) integrated forest management and ii) community involvement in sustainable forest management.

7. Knowledge Management

The project will work with stakeholders at different levels to ensure all key information and transfer of lessons learnt (from relevant projects and initiatives) are fed into the project preparation process and subsequent implementation. This includes taking into account relevant initiatives in the sub-region and beyond. For example, currently, through the Forest and Landscape Restoration Mechanism (FLR Mechanism), FAO is aiming to contribute significantly to scaling-up, monitoring and reporting on restoration activities by coordinating and facilitating the implementation of projects/programmes all around the globe. It will be ensured that there key lessons learnt will be transferred to this project. In terms of capturing knowledge generated through the project, a strategy will be developed during the project preparation phase and will be implemented under Output 3.1.2.


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

A. RECORD OF ENDORSEMENT¹⁰ OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this SGP OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr. Joshua Wycliffe	Permanent Secretary, and GEF Operational Focal Point for Fiji	Ministry of Local Government, Housing and Environment, The Fijian Government	10 May 2017

B. GEF AGENCY (IES) CERTIFICATION

This request has been prepared in accordance with GEF policies¹¹ and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email
Daniel Gustafson Deputy Director- General (Programmes) and Officer-in- Charge, Investment Centre Division		21 September 2017	Aru Mathias	+675 3212877	Aru.Mathias@fao.org

¹⁰ For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

¹¹ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF

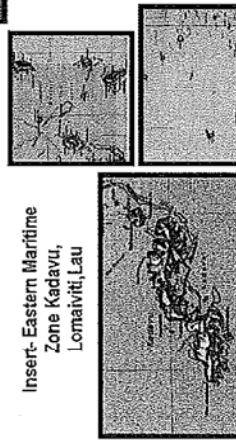
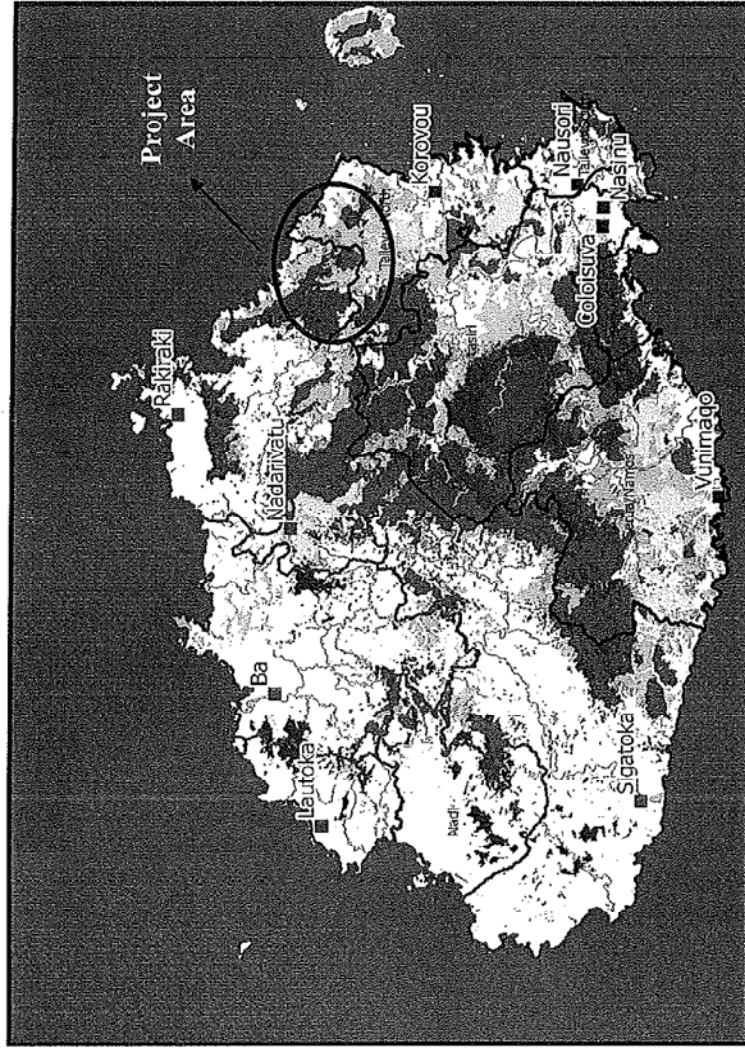
FAO Food and Agriculture Organization of the United Nations					
Jeffrey Griffin, Senior Coordinator, GEF Coordination Unit			Madankumar Janakiraman	+685 22127	Madankumar.Janakiraman@fao.org

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

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

Annex I- Map (project sites)

- Legend**
- Forestry Station [Western]
 - Forestry Station [Central/Eastern]
 - Central/Eastern Beat
 - Western Beat
 - Forest Cover
 - Multiple Use Forest - Close
 - Multiple Use Forest - Open
 - Hardwood
 - Pine
 - Coconut
 - Mangrove
 - Non Forest
 - Inland Water
 - Protected Forest - Close
 - Protected Forest - Open
 - Protected Forest - Hardwood
 - Protected Forest - Pine



Beat Map
Western, Central/Eastern Division

Map Produced by:
Management Services Division
Ministry of Forests
Coloisa



Annex

The project targets an overall direct benefit area of 71,500 ha. Six land, forest and agriculture management regimes are considered to generate carbon benefits through the project. The narrative of these regimes and intervention scenarios are as follows:

- 1) **Sustainable Forest Management/ Forest protection:** this mitigation activity will be carried out for 35,000 ha of healthy forests. It is assumed that the loss of forest area in the target area over the project lifetime of 4 years would be 140 ha (35 ha/year) with the loss of 0.1% of forest area/year. The project activity will include forest protection measures through community wardens to ensure transgressions are not committed by leasing/concessions specifically spillage from exotic plantations and forest fires that do not get started inadvertently or go uncontrolled, and sustainable extraction of timber (e.g. low impact logging) and Non-Timber Forest Products (NTFPs). Under the consequential (indirect lifetime) Greenhouse gases (GHG) emissions scenario, 10,000 ha of areas for improved forest protection is expected to be intervened after the project;
- 2) **Forest restoration/ regeneration/ afforestation:** carbon stocks in forest will be enhanced by means of forest restoration and regeneration of degraded areas through planting using suitable indigenous species and assisted natural regeneration in the target provinces. Restoration will be geared towards preserving indigenous agrobiodiversity and at the same time providing multiple benefits (e.g. NTFPs, timber for construction) to local communities. The project activity will be carried out for 9,800 ha of terrestrial forests as well as for 700 ha of mangrove forests. The project also targets to increase the forest cover of terrestrial forests and mangrove forests within the overall target area. Through the project, the forest cover of terrestrial forests will be increased by 10 % (980 ha) of target terrestrial forest area of 9,800 ha at the end of the project. It is also targeted that the forest cover of mangrove forests will be increased by 12 % (84 ha) in the target forest area at the end of the project. Under the consequential GHG emissions scenario, additional 4,000 ha of terrestrial forests and 300 ha of mangrove forests are expected to be intervened for restoration and regeneration after the project. The forest cover of terrestrial forests and mangrove forests will be further increased 500 ha and 50 ha after the project, respectively;
- 3) **Climate Smart Agriculture:** the project will target 15,000 ha of the project target area to improve primarily agricultural crop production practices. The existing agricultural practices will be improved through improved soil management, crop nutrient management, and water management. Under the consequential GHG emissions scenario, 7,500 ha of areas for climate smart agriculture is expected to be intervened after the project;
- 4) **Agroforestry production:** the project will demonstrate agro-forestry techniques across 1,000 ha in the target provinces. The agroforestry area will be promoted as an interface between agricultural land and forest frontiers. Site specific and suitable agro-forestry practices will be identified through the assessments carried out during the Project Preparation Grant phase (PPG). Contour farming, alley cropping, and agro-silvo-pastoral systems are currently considered. The land use types to deal with in the target landscape are for example degraded land and annual crop land. Under the consequential GHG emissions scenario, 500 ha of areas for improved agroforestry systems is expected to be intervened after the project;
- 5) **Rangeland management:** the project will improve the management of 10,000 ha of rangelands in order to reduce the impact to land degradation by controlling and influencing the movement of livestock (e.g. water development, fencing, stock trails, and herding) and improved feed crop management (closely related to agroforestry activities). Under the consequential GHG emissions scenario, 5,000 ha of areas for improved rangeland management is expected to be intervened after the project;

The carbon benefits from the project are estimated in terms of lifetime direct as well as consequential GHG emissions 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 4 years and 16 years, respectively. The carbon benefits are calculated using EX-Ante Carbon Balance Tool (EX-ACT).

Direct lifetime GHG emissions avoided

In the GEF Tracking Tool for Climate Change Mitigation (CCM) 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 separately:

Variable	Value	Unit	Note
Lifetime length for direct GHG emissions avoided	20	years	4 year implementation phase plus 16 year capitalization phase
Continent	Oceania	-	EX-ACT default type
Climate, and Moisture regime	Tropical/ Dry	-	EX-ACT data
Dominant Regional Soil Type	Volcanic Soils	-	EX-ACT data; According to Geological Map of Fiji (1965), the major bedrock types in the project. Provinces are porphyritic basalt and deformed volcanic sediment.
Area for GHG emissions calculation in EXACT	71,500	ha	Project target: Climate Smart Agriculture (15,000 ha); Agroforestry production (1,000 ha); Rangeland management (10,000 ha); Forest protection (35,000 ha); Restoration/regeneration/afforestation of terrestrial forests (9,800 ha) and mangrove forests (700 ha)
Forest area with project	35,000	ha	Project target
Deforestation rate	140	ha over 4 years	0.1% of annual forest loss for 35,000 ha (35 ha/year)
Forest area without project	34,860	ha	$35,000 - 140 = 34,860$
Type of vegetation before and final use after deforestation	Tropical dry forest/Set-aside	-	Project assumption for 35,000 ha
Type of vegetation for afforestation in terrestrial forest / previous land use	Tropical dry forest/Set-aside	-	Forest Zone 3 in EXACT
Afforestation area of terrestrial forests	980	ha	Project target
Type of vegetation for afforestation in mangrove forest / previous land use	Tropical shrub land/set aside	-	Forest Zone 4 in EXACT
Afforestation area of mangrove forests	84	ha	Project target
Above-ground/ Below-ground carbon stocks/ Carbon stock in Litter and dead wood of Forest Zone 3	61.1/ 17.1/ 3.7/ 0/ 50	tC/ha	Tier 1 EX-ACT default value
Above-ground/ Below-ground carbon stocks/ Carbon stock in Litter and dead wood of Forest Zone 4	32.9/ 17.1/ 3.7/ 0/ 50	tC/ha	Tier 1 EX-ACT default value
Area and state of degradation for Forest Zone 3 (initial / without project / with project)	8,820 ha (Low/ Low/ Very low)	-	Project target and assumption; no fire occurrence
Area and state of degradation for Forest Zone 4 (initial / without project / with project)	616 ha (Moderate/ Moderate/ Low)	-	Project target and assumption; no fire occurrence

Land use change for Agroforestry systems	1,000 ha From Annual crop to Perennial tree crop	-	Project target
Improved cropping under Climate Smart Agriculture (3.1.2. Annual systems remaining annual systems)	15,000	ha	Improved agronomic practices, improved Nutrient management, improved water management, and retained residues
Area for improved rangeland management (Initial state/ without project state/ with-project state)	10,000 ha (Moderately Degraded/ Moderately Degraded/ Improved without inputs management)	-	Project target and assumption
Global warming potential values (GWP)	Official (2nd period 2013-2020)	-	EX-ACT data

The estimated values of direct lifetime GHG emissions avoided during 20 years (4 years of implementation phase and 16 years of capitalization phase) are as follows:

Management regime	Area (ha)	Direct lifetime GHG emissions avoided (tCO2eq)	
Sustainable Forest Management/ Forest protection (terrestrial and mangrove)	35,000	41,071	
Forest restoration/ regeneration/ afforestation (terrestrial)	9,800	457,778*	494,600
Forest restoration/ regeneration/ afforestation (mangrove)	700	36,822**	
Climate Smart Agriculture	15,000	293,417	
Agroforestry production	1,000	179,007***	
Rangeland management	10,000	330,000	
TOTAL	71,500	1,338,095	

* 120,284+337,494=457,778

** 4,202+32,620 = 36,822

*** 57,567 + 121,440 = 179,007

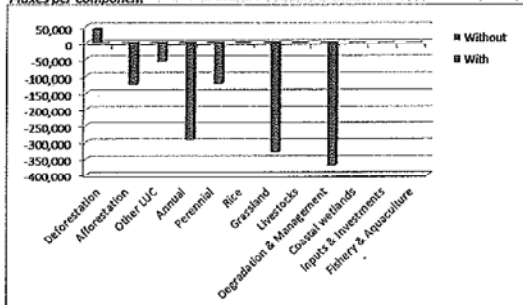
The direct lifetime GHG emissions mitigation potential from the project is estimated as **1,338,095 tCO₂eq**, which is equivalent to **0.9 tCO₂eq per hectare per year** in the considered biome and time frame.

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

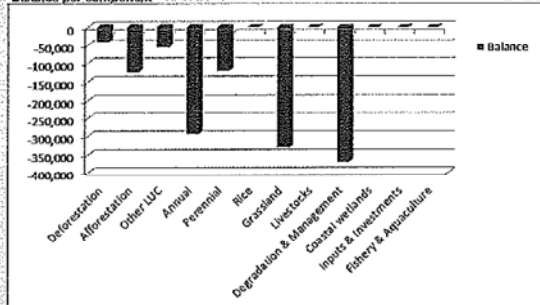
Project Name	Community-based Integrat	Climate	Tropical (Dry)	Duration of the Project (Years)	20
Continent	Oceania	Dominant Regional Soil Type	Volcanic Soils	Total area (ha)	71,500

Components of the project	Gross fluxes			Share per GHG of the Balance					Result per year		
	Without	With	Balance	All GHG in tCO ₂ e/ha					Without	With	Balance
				CO ₂	N ₂ O	CH ₄					
				Biomass	Soil	Other					
Land use changes											
Deforestation	41,071	0	-41,071	39,454	-1,617	-6	0	2,054	0	-2,054	
Afforestation	0	-124,486	-124,486	-112,197	-12,289	0	0	0	-6,224	-6,224	
Other LUC	0	-57,567	-57,567	11,733	-69,300	0	0	0	-2,878	-2,878	
Agriculture											
Annual	0	-293,417	-293,417	0	-307,600	14,363	0	0	-14,871	-14,871	
Perennial	0	-121,440	-121,440	-115,500	-5,940	0	0	0	-6,072	-6,072	
Rice	0	0	0	0	0	0	0	0	0	0	
Grassland & Livestocks											
Grassland	0	-330,000	-330,000	0	-330,000	0	0	0	-18,500	-18,500	
Livestocks	0	0	0	0	0	0	0	0	0	0	
Degradation & Management	0	-370,113	-370,113	-287,184	-82,929	0	0	0	-18,506	-18,506	
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	41,071	-1,297,024	-1,338,094	-542,602	809,875	0	14,375	0	2,054	-64,851	-66,905
Per hectare	1	-18	-19	-7.6	-11.3	0.0	0.2	0.0			
Per hectare per year	0.0	-0.9	-0.9	-0.4	-0.6	0.0	0.0	0.0	0.0	-0.8	-0.9

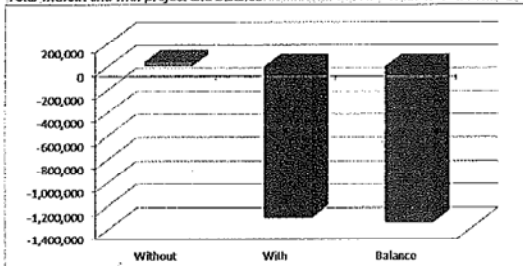
Fluxes per component



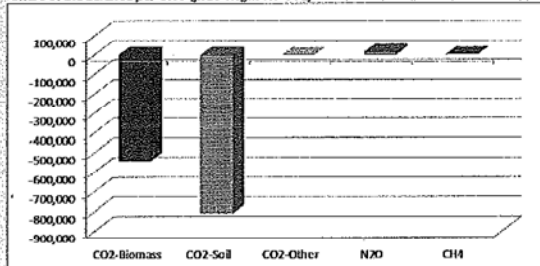
Balance per component



Total without and with project and balance



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



Evolution of land use / category (in hectares - ha)

		Initial State	Without project	With project
Forest/Plantation	Annual	44,438	44,206	45,500
	Perennial	16,000	16,000	15,000
Agriculture	Rice	0	0	1,000
	Annual	0	0	0
Grassland	Degraded	10,000	10,000	10,000
Other lands	Other	0	0	0
Wetlands		1,064	1,204	0
		0	0	0
Total area (ha)		71,500	71,500	71,500

Uncertainty level

Gross fluxes	Without	% of uncertainty
	41,071	34.0
	-1,297,024	40.0
Net balance	-1,338,094	45.7

Detailed matrices of changes

Other indicators

Area irrigated - ha	Initial State	Without project	With project
Irrigated rice	0	0	0
Annual Crops	0	0	15,000
Total	0	0	15,000
Cumulated areas burnt - ha		Without project	With project
From deforestation		0	0
From degradation		0	0
Afforestation		0	0
Other LUC		0	0
Annual		0	270,000
Perennial		0	0
Irrigated rice		0	0
Grassland		0	0
Total		0	270,000

Consequential (Indirect lifetime) GHG emissions avoided

According to the Guidelines for Greenhouse Gas Emissions Accounting and Reporting for GEF Projects (GEF/C.48/Inf.09, 7 May 2015), indirect emissions reductions are re-defined as “consequential emissions”. Consequential GHG emission reductions are those projected emissions that could result from a broader adoption of the outcomes of a GEF project plus longer-term emission reductions from behavioural change. Broader adoption of a GEF project proceeds through several processes including sustaining, mainstreaming, replication, scaling-up and market change. Consequential emission reductions are typically achieved after GEF project closure and occur outside of the project logical framework (Results Matrix).

To date there is very little reliable baseline information of the project sites, both qualitative and quantitative, available to calculate the consequential GHG emissions avoided. During the PPG phase, the project will conduct necessary baseline surveys, including the assessment of potential target areas for the scaling-up purposes.

The scaling-up activity for forest protection includes 10,000 ha of additional areas after the project. Additional 4,000 ha of terrestrial forests and 300 ha of mangrove forests are expected to be intervened for restoration and regeneration. The forest cover of terrestrial forests and mangrove forests will be further increased for 500 ha and 50 ha after the project, respectively. In the Climate Smart Agriculture regime, additionally 7,500 ha of the area will be intervened after the project. Also 500 ha of areas is expected to be intervened for improved agroforestry systems. It is expected that improved rangeland management activity will be replicated for 5,000 ha of additional areas. The total coverage of indirect potential benefit area for the carbon calculation is assumed as 27,300 ha.

For the estimation consequential GHG emissions avoided during 20 years (4 years of implementation phase and 16 years of capitalization phase), the following variables and assumptions are used for the calculation:

Variable	Value	Unit	Note
Lifetime length for consequential GHG emissions avoided	20	years	4 year implementation phase plus 16 year capitalization phase
Continent	Oceania	-	EX-ACT default type
Climate, and Moisture regime	Tropical/ Dry	-	EX-ACT data
Dominant Regional Soil Type	Volcanic Soils	-	EX-ACT data; According to Geological Map of Fiji (1965), the major bedrock types in the project Provinces are porphyritic basalt and deformed volcanic sediment.
Area for consequential GHG emissions calculation in EXACT	27,300	ha	Project target: Forest protection (10,000 ha); Restoration/regeneration/afforestation of terrestrial forests (4,000 ha) and mangrove forests (300 ha); Climate Smart Agriculture (7,500 ha); Agroforestry production (500 ha); Rangeland management (5,000 ha);
Forest area with project	10,000	ha	Project target
Deforestation rate	40	ha over 4 years	0.1% of annual forest loss for 10,000 ha (10 ha/year)
Forest area without project	9,960	ha	$10,000 - 40 = 9,960$
Type of vegetation before and final use after deforestation	Tropical dry forest/Set-aside	-	Project assumption for 10,000 ha
Type of vegetation for afforestation in terrestrial forest / previous land use	Tropical dry forest/Set-aside	-	Forest Zone 3 in EXACT
Afforestation area of terrestrial forests	500	ha	Project target

Type of vegetation for afforestation in mangrove forest / previous land use	Tropical shrub land/ set aside	-	Forest Zone 4 in EXACT
Afforestation area of mangrove forests	50	ha	Project target
Above-ground/ Below-ground carbon stocks/ Carbon stock in Litter and dead wood of Forest Zone 3	61.1/ 17.1/ 3.7/ 0/ 50	tC/ha	Tier 1 EX-ACT default value
Above-ground/ Below-ground carbon stocks/ Carbon stock in Litter and dead wood of Forest Zone 4	32.9/ 17.1/ 3.7/ 0/ 50	tC/ha	Tier 1 EX-ACT default value
Area and state of degradation for Forest Zone 3 (initial / without project / with project)	3,500 ha (Low/ Low/ Very low)	-	Project target and assumption; no fire occurrence
Area and state of degradation for Forest Zone 4 (initial / without project / with project)	250 ha (Moderate/ Moderate/ Low)	-	Project target and assumption; no fire occurrence
Land use change for Agroforestry systems	500 ha From Annual crop to Perennial tree crop	-	Project target
Improved cropping under Climate Smart Agriculture (Annual systems remaining annual systems)	7,500	ha	Improved agronomic practices, improved Nutrient management, improved water management, and retained residues
Area for improved rangeland management (Initial state/ without project state/ with-project state)	5,000 ha (Moderately Degraded/ Moderately Degraded/ Improved without inputs management)	-	Project target and assumption
Global warming potential values (GWP)	Official (2nd period 2013-2020)	-	EX-ACT data

The estimated values of consequential (indirect lifetime) GHG emissions avoided during 20 years (4 years of implementation phase and 16 years of capitalization phase) are as follows:

Management regime	Area (ha)	Consequential GHG emissions avoided (tCO2eq)	
Forest protection (terrestrial and mangrove)	10,000	11,735	
Forest restoration/ regeneration/ afforestation (terrestrial)	4,000	195,295*	211,035
Forest restoration/ regeneration/ afforestation (mangrove)	300	15,740**	
Climate Smart Agriculture	7,500	146,709	
Agroforestry production	500	89,503***	
Rangeland management	5,000	165,000	
TOTAL	27,850	623,982	

* 61,369 + 133,926 = 195,295

** 2,501 + 13,239 = 15,740

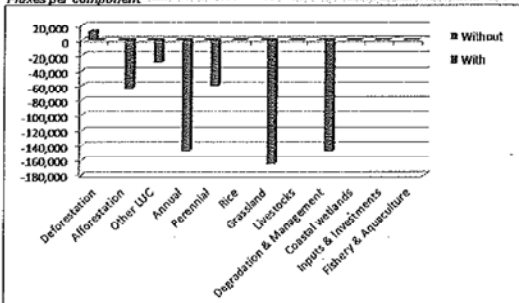
*** 28,783 + 60,720 = 89,503

The consequential GHG emissions mitigation potential from the project is estimated as **-623,982 tCO₂eq**, which is equivalent to **1.1 tCO₂eq per hectare per year** in the considered biome and time frame.

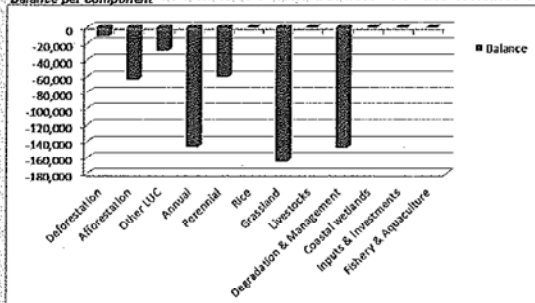
Table below provides the details of the indirect GHG fluxes as calculated with the EX-ACT during 20 years of project lifetime:

Project Name	Community-based Integrated		Climate	Tropical (Dry)			Duration of the Project (Years)			20		
Continent	Oceania	Dominant Regional Soil Type	Volcanic Soils	Volcanic Soils			Total area (ha)			27300		
Components of the project	Gross fluxes			Share per GHG of the Balance					Result per year			
	Without	With	Balance	All GHG in tCO2eq			N2O	CH4	Without	With	Balance	
	All GHG in tCO2eq			CO2	Biomass	Soil						Other
	Positive = source / negative = sink											
Land use changes												
Deforestation	11,735	0	-11,735	-11,273	-462			-2	0	587	0	-587
Afforestation	0	-63,871	-63,871	-57,518	-6,353			0	0	0	-3,194	-3,194
Other LUC	0	-28,783	-28,783	5,867	-34,650			0	0	0	-1,439	-1,439
Agriculture												
Annual	0	-146,709	-146,709	0	-153,900			7,191	0	0	-7,335	-7,335
Perennial	0	-80,720	-80,720	-57,750	-2,970			0	0	0	-3,036	-3,036
Rice	0	0	0	0	0			0	0	0	0	0
Grassland & Livestocks												
Grassland	0	-165,000	-165,000	0	-165,000			0	0	0	-8,250	-8,250
Livestocks	0	0	0	0	0			0	0	0	0	0
Degradation & Management	0	-147,165	-147,165	-114,165	-33,000			0	0	0	-7,358	-7,358
Coastal wetlands	0	0	0	0	0			0	0	0	0	0
Inputs & Investments	0	0	0				0	0	0	0	0	0
Fishery & Aquaculture	0	0	0				0	0	0	0	0	0
Total	11,735	-612,247	-623,982	-234,839	-396,335	0	7,189	0	587	-30,612	-31,199	
Per hectare	0	-22	-23	-8.6	-14.5	0.0	0.3	0.0				
Per hectare per year	0.0	-1.1	-1.1	-0.4	-0.7	0.0	0.0	0.0	0.0	-1.1	-1.1	

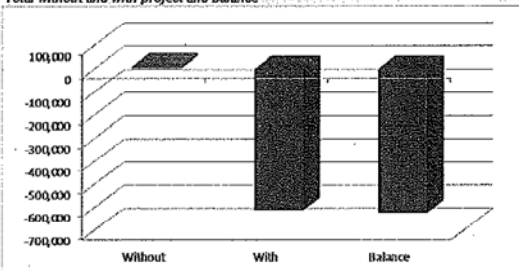
Fluxes per component



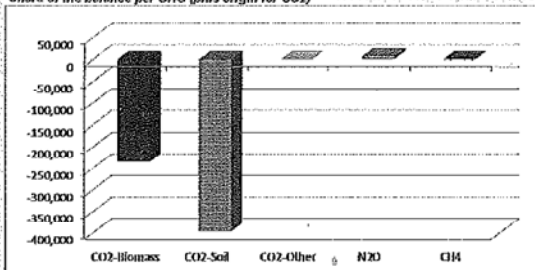
Balance per component



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	Annual	13,750	13,710	14,300
	Perennial	8,000	8,000	7,500
Agriculture	Annual	0	0	500
	Perennial	0	0	0
Grassland	Annual	5,000	5,000	5,000
	Perennial	0	0	0
Other lands	Degraded	0	0	0
	Other	550	550	0
Wetlands		0	0	0
Total area (ha)		27,300	27,300	27,300

Uncertainty level

Gross fluxes		% of uncertainty
Without	11,735	34.0
With	-612,247	46.4
Net balance	-623,982	46.2

Detailed matrices of changes

Other indicators

Area irrigated - ha		Initial State	Without project	With project
Irrigated rice	Annual Crops	0	0	7,500
	Total	0	0	7,500
Cumulated areas burnt - ha			Without project	With project
From deforestation	Annual	0	0	0
	Perennial	0	0	0
From degradation	Annual	0	0	0
	Perennial	0	0	0
Aforestation	Annual	0	0	135,000
	Perennial	0	0	0
Other LUC	Annual	0	0	0
	Perennial	0	0	0
Grassland	Annual	0	0	0
	Perennial	0	0	0
Total			0	135,000