



**REQUEST FOR CEO ENDORSEMENT
PROJECT TYPE: FULL-SIZED PROJECT
TYPE OF TRUST FUND: GEF TRUST FUND**

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PART I: PROJECT INFORMATION

Project Title: Implementing a ‘Ridge to Reef’ approach to protect biodiversity and ecosystem functions in Tuvalu (R2R Tuvalu)			
Country:	Tuvalu	GEF Project ID ¹ :	5550
GEF Agency:	UNDP	GEF Agency Project ID:	5220
Other Executing Partner(s):	Department of Environment, Ministry of Foreign Affairs, Trades, Tourism, Environment and Labour (MoFATTEL)	Submission Date:	20 April 2015
		Resubmission Date:	20 May 2015
GEF Focal Area (s):	Multi-focal Area (BD; LD; IW)	Project Duration (Months)	60
Name of parent program (if applicable): For SFM/REDD+ <input type="checkbox"/>	Pacific Islands Ridge-to-Reef National Priorities - Integrated Water, Land, Forest & Coastal Management to Preserve Biodiversity, Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods	Agency Fee (\$):	338,656

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Co- Financing (US\$)
BD-1: Improve Sustainability of Protected Area Systems	1.1) Improved management effectiveness of existing protected areas	New protected areas (number) and coverage (hectares) of unprotected ecosystems.	GEF TF	1,400,000	4,252,088
BD – 2: Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes, Seascapes and Sectors;	2.2) Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks.	Polices and regulatory frameworks for production sectors	GEF TF	315,000	4,252,088
LD-3: Reduce Pressures on Natural Resources from Competing Land and Water Uses including through Integrated Watershed Management (IWM)	3.2) Integrated landscape management practices adopted by local communities	INRM tools and methodologies developed and tested	GEF TF	1,893,448	1,880,089

¹ Project ID number will be assigned by GEFSEC.

IW-3 Support foundational capacity building, portfolio learning, and targeted research needs for joint, ecosystem-based management of trans-boundary water systems.	3.3) IW portfolio capacity and performance enhanced from active learning/KM/experience sharing.	Active experience / sharing / learning practiced in the IW portfolio	GEF TF	154,396	5,296,326
Total Project Cost				3,762,844	15,680,591

B. PROJECT FRAMEWORK

Project Objective:						
To preserve ecosystem services, sustain livelihoods and improve resilience in Tuvalu using a 'ridge-to-reef' approach						
Project Component	Grant Type²	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co Financing (\$)
1. Conservation of Island and Marine Biodiversity	TA	1.1 Improved management effectiveness of system of conservation areas composed of existing and expanded Locally Managed Marine Areas (LMMAs)	<p>Output 1.1.1: National biodiversity surveys of terrestrial and marine fauna & flora completed, with specific targets on endemic species to develop the biodiversity component of the GIS-based management information system (as described in Output 4.1.1)</p> <p>Output 1.1.2: Existing marine conservation areas in the 9 locations expanded to cover 15% of existing conservation areas (approx. 1200 ha or 12 km²) by including more land and sea areas and fish spawning aggregation sites where appropriate, building on completed assessments and additional National Biodiversity Surveys (as described in Output 1.1.1). Repeat assessments supported at midterm and project end to measure management effectiveness. Information incorporated into the GIS-based management information system (as described in Output 4.1.1)</p> <p>Output 1.1.3: Community management systems of marine conservation areas formalised following participatory LMMA approaches, with biodiversity focus to address threats, including climate change.</p>	GEF TF	1,600,000	7,524,000

² TA includes capacity building, and research and development.

2. Integrated Land and Water Management	TA	2.1 Integrated landscape management practices adopted by local communities	<p>Output 2.1.1: Resource inventory performed, soils characterized and hazards to land and water resources identified and incorporated into GIS area mapping, complementing Output 1.1.1 towards improving decision making in the management of production landscapes and maintenance of ecosystem services</p> <p>Output 2.1.2: Re-vegetated degraded areas with indigenous hardwood tree species (including mangroves, coconuts and local crop species) in selected sites in 3 islands (Funafuti, Nanumea and Nukufetau), towards improving hydrological functions, coastal resilience against climate impacts, and improving livelihoods and securing food production with involvement of Department of Agriculture, Department of Rural Development, Kaupule, NGOs and women’s organizations (Tuvalu National Council of Women)</p> <p>Output 2.1.3: Review of completed algal bloom assessment in Funafuti; Implement remedial measures to reduce occurrences and severity</p>	GEF TF	1,425,000	6,261,809
3. Governance and Institutions	TA	<p>3.1 Integrated approaches mainstreamed in policy and regulatory frameworks</p> <p>3.2 Capacity on integrated approaches enhanced at the national and community level</p>	<p>Output 3.1.1: Kaupule conservation area management plans examined and documented in conjunction with various departments (Environment, Fisheries, Rural Development, and Budget and Planning) and communities, and used to inform national planning and development of regulations and legislation at the national level in support of integrated approaches (ensuring that documents are also translated into local language).</p> <p>Output 3.2.1: Training packages including manuals, guides and modules on LMMAs, MPAs, SLM, ICM and IWRM, to advanced and basic levels, that include biodiversity status and assessments developed and implemented in collaboration with the regional R2R program support project</p>	GEF TF	330,000	683,464
4. Knowledge Management	TA	4.1. Improved data and information systems on biodiversity, forests land management adaptation best practice	<p>Output 4.1.1 : Improved GIS-based management information system installed for biodiversity, forests and climate change, land & coastal management and best practices that includes an electronic library to access past knowledge, including reports, data etc. in parallel with ongoing projects, e.g., NAPA 2 project. Years 1 & 2 focus on collection of information and assessments with years 3 & 4 to focus more on applications.</p> <p>Output 4.1.2 : Knowledge products (videos, photo stories, flyers, brochures) on all focal areas and best practices developed and disseminated through print,</p>	GEF TF	228,661	427,500

			broadcast and through Kaupule, schools, NGOs, women's and youth groups. All translated into Tuvaluan. Output 4.1.3: Systematic monitoring system established, with data sharing and joint training and survey activities for terrestrial and marine areas and integrated approaches; monitoring and evaluation results are fed to the R2R program through the regional program support project to facilitate lessons sharing and cross-country fertilization			
Sub-Total					3,583,661	14,896,773
Project management cost (PMC)					179,183	783,818
Total project costs					3,762,844	15,680,591

C. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME

Sources of Co-financing	Name of Co-financiers	Type of Co-financing	Amount (USD)
National Government Agencies	Dept. of Rural Development**	In-kind	369,382
	Dept. of Agriculture	In-kind	500,000
	Dept. of Environment	In-kind	270,000
	Dept. of Fisheries	In-kind	13,400,000
	Tuvalu Solid Waste Agency of Tuvalu (SWAT)**	In-kind	1,091,209
GEF Agency	UNDP (1 year support from UNDP Fiji)	Grant	50,000
TOTAL			15,680,591

**Note: DRD and SWAT providing co-financing as AUD (Rate used: 1 AUD = USD 0.78)

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF AGENCY	TYPE OF TRUST FUND	FOCAL AREA	Country Name / Global	Grant Amount (a)	Agency Fee (b) ²	Total c=a+b82
UNDP	GEFTF	Biodiversity	Tuvalu	1,323,392	119,105	1,442,497
UNDP	GEFTF	Land Degradation	Tuvalu	520,534	46,848	567,382
UNDP	GEFTF	Climate Change	Tuvalu	1,764,522	158,807	1,923,329
UNDP	GEFTF	International Waters	Global	154,396	13,896	168,292
Total Grant Resources				3,762,844	338,656	4,101,500

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

COMPONENT	GRANT AMOUNT (\$)	CO-FINANCING (\$)	Project Total (\$)
International Consultants	261,800	1,278,157	1,539,957
National/Local Consultants	98,600	410,777	509,377

G. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? NO

PART II: PROJECT JUSTIFICATION

Project Overview

The objective of project, “Implementing ‘Ridge to Reef’ approach to protect biodiversity and ecosystem functions in Tuvalu (Tuvalu R2R Project)” is “to preserve ecosystem services, sustain livelihoods and improve resilience in Tuvalu using a ‘ridge-to-reef’ approach”. To achieve this objective, the project focuses on: enhancing and strengthening conservation and protected areas (Component 1); rehabilitating degraded coastal and inland forests and landscapes and supporting the delivery of integrated water resource management (IWRM) and integrated coastal management (ICM) at a national scale whilst piloting hands-on approaches at the island scale (on three selected pilot islands) (Component 2); enhancing governance and institutional capacities at the national, island, and community levels for enhanced inland and coastal natural resource management (Component 3); and improving data and information systems that would enable improve evidence-based planning, decision-making, and management of natural resources in Tuvalu (Component 4).

The project is part of the Pacific R2R program on “Pacific Islands Ridge-to-Reef National Priorities - Integrated Water, Land, Forest & Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods”. It is consistent with three of the GEF-5 focal areas including Biodiversity, International Waters, and Land Degradation, and is designed to advance Tuvalu’s work towards achieving national and international priorities in these key focal areas through a comprehensive Ridge to Reef approach. As such, the project will deliver directly on: the Convention on Biological Diversity (CBD)’s Programme of Work of Protected Areas (PoWPA) of the Aichi Targets and the National Biodiversity Strategy and Action Plan (NBSAP 2012 – 2016); the UN Convention to Combat Desertification (CCD)’s National Action Programme (NAP); the Sustainable and Integrated Water and Sanitation Policy (2012 – 2021); and the Climate Change Policy and Action Plan .

Building on ongoing initiatives, the project will work across the 9 islands of Tuvalu on assessing natural resources status (baseline analysis and data collection), rehabilitating damaged island and coastal ecosystems including forests, and improving or developing Locally Managed Marine Areas (LMMAs), including Marine Protected Areas (MPAs) governed by the 8 Kaupules and Falekaupules (Island Councils). These activities assist in the recovery of degraded corals and breeding of fish populations. By the end of the five year implementation, the project aims to: increase and enhance Tuvalu’s LMMAs, including MPAs, by 15% with 9 formalized community management systems of marine conservation areas across 9 islands equipped with functional management plans; enhance and/or develop a centralized GIS database system on biodiversity, natural resources, and governance systems; implement sustainable land management interventions and agroforestry interventions; carry out remedial measures for algal bloom in Funafuti Lagoon; mainstream Ridge to Reef into national policies and Kaupule budgets; develop and implement national standard operational procedure on knowledge management; and enhance awareness and build capacities on Ridge to Reef.

The whole of Tuvalu is considered within this R2R project. Only Component 2 focusing on integrated land and water management (LD and IW) are limited to one of, or all 3 islands of Funafuti, Nukufetau and Nanumea, whilst other Components include all 9 islands of Tuvalu. The project will directly benefit the 6,194 people living in the urban capital Funafuti (55% of the population) as well as two outer islands of Nanumea (556 inhabitants) and Nukufetau (540 inhabitants) with improved integrated water and land management measures. In addition, the project will indirectly benefit the livelihoods of the entire population of Tuvalu through the long-term impacts of the R2R approach and the enhanced management of inland and coastal resources through the additional/improved LMMAs/MPA networks formalized in all 9 islands.

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF

The project outcomes detailed in the PIF remain the same for the full size project proposal. Stakeholders consulted through the PPG phase fully supported that these outcomes are in line with national and local priorities, and represent the goal of the R2R project. The project outputs through bilateral and group stakeholder discussions during the consultation workshops have undergone review, refinement and change reflecting the consensus of all stakeholders.

Although there are no significant changes with the project design with original PIF, the following changes were made during the PPG phase:

- Component 1, Outcome 1.1 within the PIF concentrated on three islands. Post PPG consultation, this is revised to ensure that all nine islands are to be included in the implementation of Component 1 Outcome 1.1. This is because of the need to deliver a 15% expansion of existing Conservation Areas. If this was focused on just the three proposed islands, their spatial size would not be large enough to achieve this target. As per PIF, Components 2 & 3 however, will remain to concentrate on the three original islands.
- Project Management Cost has been reduced from US\$185,844 in the PIF to US\$ 179,183 to stay within 5% of the total grant amount. In exchange, Component 4, Outcome 4.1 was increased from US\$ 220,000 (PIF) to US\$ 228,661.
- The indicative co-financing in the PIF totalled US\$ 10,225,000. After further consultation with government and other development partners during the PPG the amount of co-financing has increased to US\$ 15,676,355.

Below Table summarizes the refinements / adjustments made at the output level.

Output in PIF	Changes in ProDoc/CEO EF	Reasons for refinement/ adjustments
1.1.2 Existing marine conservation areas in the 10 locations expanded to cover 15% of Tuvalu by including more land and sea areas and fish spawning aggregation sites where appropriate, building on completed assessments and additional National Biodiversity Surveys (as described in Output 1.1.1). Repeat assessments supported at midterm and project end to measure management effectiveness. Information incorporated into the GIS-based management information system (as described in Output 4.1.1)	1.1.2 Existing marine conservation areas in the <u>9 locations</u> expanded to cover <u>15% of existing conservation areas (approx. 1200 ha or 12 km²)</u> by including more land and sea areas and fish spawning aggregation sites where appropriate, building on completed assessments and additional National Biodiversity Surveys (as described in Output 1.1.1). Repeat assessments supported at midterm and project end to measure management effectiveness. Information incorporated into the GIS-based management information system (as described in Output 4.1.1)	Current marine conservation area is in 9 islands/provinces, where Vaitupu has 5 sites. Therefore, correct location number is 9. Existing conservation area has been verified as 76.026 as per POWPA. 15% of this is 11.4 km ² or approximately 12km ² (however, the figure being followed is 12km ²).
1.1.3 Community management systems of marine conservation areas formalised following participatory approaches, with biodiversity focus to address threats, including climate change.	1.1.3 Community management systems of marine conservation areas formalised following participatory <u>LMMA</u> approaches, with biodiversity focus to address threats, including climate change.	To ensure consistency throughout the document and to clarify the importance of community management principles as part of the LMMA approach.
2.1.2 Degraded forest, cropped and shoreline areas revegetated with native and suitable hardwood tree species (such as Scaevola, Barringtonia, Calophylla), and mangrove trees planted in 3 islands with suitable habitats (Funafuti, Nanumea and Nukufetau), towards improving hydrological functions and coastal resilience against climate impacts. 2.1.3 Agroforestry Integration Production implemented, including coconut rehabilitation and underutilized local crop species with involvement of Kaupule, NGOs and womens' organizations in about 3 islands towards improving livelihoods and	2.1.2 <u>Re-vegetated degraded areas with indigenous hardwood tree species (including mangroves, coconuts and local crop species) in selected sites in 3 islands (Funafuti, Nanumea and Nukufetau), towards improving hydrological functions, coastal resilience against climate impacts, and improving livelihoods and securing food production with involvement of Department of Agriculture, Department of Rural Development, Kaupule, NGOs and women's organizations (Tuvalu National Council of Women)</u>	Outputs 2.1.2 and 2.1.3 has been integrated because within each of the 3 pilot islands, it would be more effective (due to their geographic scale) to combine efforts towards sustainable land management and agroforestry (livelihoods and food security) comprehensively. This is because the stakeholders engaged are likely to be the same for both (community members as well as government ministries).

Output in PIF	Changes in ProDoc/CEO EF	Reasons for refinement/ adjustments
securing food production		
2.1.4 Algal blooms in Funafuti lagoon assessed to identify causes and impacts; remedial or measures to control occurrences and severity recommended and initially implemented	<u>2.1.3 Review of completed algal bloom assessment in Funafuti; Implement remedial measures to reduce occurrences and severity</u>	Due to the merger of Outputs 2.1.2 and 2.1.3, this Output number consequently changed from the original PIF. Also, through the PPG process, it was found that an algal bloom assessment was already conducted by USP. Therefore, the output was revised to focus more on the implementation of proposed remedial measures.
3.1.1 Kaupule conservation area management plans examined and documented in conjunction with Fisheries Department where appropriate, and used to inform national planning and development of regulations and legislation in National Policy in support of integrated approaches	3.1.1: Kaupule conservation area management plans examined and documented in conjunction with <u>various departments (Environment, Fisheries, Rural Development, and Budget and Planning)</u> and communities, and used to inform national planning and development of regulations and legislation <u>at the national level</u> in support of integrated approaches (ensuring that documents are also translated into local language).	Informed by consultations and assessment of institutional structure and stakeholders engaged in island level conservation and management during PPG, the project would benefit from the engagement of Dept. of Environment (authority for conservation) and Ministry of Budget and Planning (overseeing national development).
3.2.1 Training manuals and modules on Integrated Coastal Management (ICM) and Integrated Water Resources Management (IWRM) that will include biodiversity status and assessments developed in collaboration with the regional R2R program support project	3.2.1 Training <u>packages including manuals, guides and modules on LMMAs, MPAs, SLM, ICM and IWRM, to advanced and basic levels</u> , that include biodiversity status and assessments developed <u>and implemented</u> in collaboration with the regional R2R program support project	To facilitate improved implementation, during the PPG phase, it was recommended that Output 3.2.1 focuses on training needed at basic and advanced levels
3.2.2 Trainings in integrated approaches such as ICM and IWRM provided at advanced and basic levels, with training packages developed specifically for Tuvalu and delivered to 3 islands benefitting the national government including 3 traditional councils and about 150 community participants; participated in related training activities conducted through the Pacific R2R Program	3.2.2 <u>Training programmes at advanced and basic levels, developed specifically for local Tuvaluans</u> and delivered to 3 islands benefitting the national government including 3 traditional councils and about 150 community participants; participated in related training activities conducted through the Pacific R2R Program.	To facilitate improved implementation, during the PPG phase, it was recommended that Output 3.2.2 focuses on training needed to be simplified and developed specifically for local Tuvaluans.
4.1.1 Improved GIS-based management information system installed for biodiversity, forests and climate change, land management and best practices that includes an electronic library to access past knowledge, including reports, data etc. in parallel with ongoing projects, e.g., NAPA II project. Years 1 & 2 to focus on collection of information and assessments, years 3 & 4 to focus on applications.	4.1.1 Improved GIS-based management information system installed for biodiversity, forests and climate change, land & <u>coastal</u> management and best practices that includes an electronic library to access past knowledge, including reports, data etc. in parallel with ongoing projects, e.g., NAPA II, <u>IIB, EU GCCA</u> projects, etc. Years 1 & 2 to focus on collection of information and assessments, years 3 & 4 to focus on applications.	There is a need for GIS-based management information system for information both on land and coastal areas. Therefore, this has been reflected. Support and outputs from the IIB and EU GCCA projects are likely to be of equal value to that of the NAPA II project. Therefore, this needed to be included in the output title.

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.

Not Applicable, No change since the PIF.

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

N/A. No change from PIF.

A.3 The GEF agency's comparative advantage:

N/A. No Change from PIF.

A.4 The baseline project and the problem that it seeks to address:

Baseline projects have been adjusted so that R2R Tuvalu projects are anchored more directly within existing government initiatives. Through the PPG phase, strengthened support and ownership from the various government agencies were garnered, which will serve as the baseline initiatives for the R2R project.

These initiatives include:

The R2R project will build on the mandate of the *Ministry of Foreign Affairs, Trade, Tourism, Environment and Labour, Department of Environment* to enhance natural resource management and mainstream environmental protection into national, sectoral, and local level policies in Tuvalu. As the project Executing Agency / Implementing Partner for R2R, the Department of Environment will lead the coordination at the national and island level implementation to ensure that project results are captured and disseminated effectively. Furthermore, they will provide day-to-day technical support and guidance of project implementation, as the Project Coordination Unit will report directly to the Director of Environment. As such, the entire range of operational and administrative functions for the Department of Environment (DoE) provides an important baseline for the project. Staff time, use of facilities, and portion of the annual budget totaling to US\$270,000 over the 5 years of project implementation is counted as project baseline, which will contribute to the planning, coordination, and implementation of the various project components, as well as DoE's leadership role played particularly in Component 4.

Ministry of Natural Resources Fisheries Department and *Department of Agriculture* are also essential baseline for the R2R Project. Fisheries Department's mandates align with the R2R Project objectives, particularly with activities carried out within their Inshore Fisheries Section. The R2R project enables Fisheries Department Inshore Section to deliver directly on their mandate to enhance their database on marine resource stocks and current fishing and management practices. In turn, the Fisheries Department Inshore Section will lead the Outcome 1 activities in LMMA establishment, community consultation, development and implementation of monitoring frameworks through providing technical and implementation support. Fisheries Department staff, equipment, and know-how will contribute to all 4 Components of the R2R project throughout the 5 year of project implementation. As such, portions of the Fisheries Department Annual Recurrent Budget, NZAID funded Tuvalu Fisheries Support Program, Community vessel-day scheme, and other marine related small project funding, totaling to US\$13,400,000 will serve as baseline initiatives for the R2R project.

Similarly, Department of Agriculture's mandate and activities will serve as a key baseline for the R2R project particularly on efforts to enhance sustainable land management under Component 2. Staff time, annual budgets, and activities towards enhancing food security under the Global Climate Change Alliance (GCCA) project totaling to US\$ 500,000 will serve as baseline initiatives for the R2R project.

Ministry of Home Affairs, Department of Rural Development leads outer island development efforts in Tuvalu. Efforts to enhance community livelihoods through enhancing marine and inland biodiversity, and mainstreaming R2R into Island Strategic Plans under the R2R framework will build on the existing efforts and mandates of the Department of Rural Development (DRD). DRD will lead in the formalization of the community conservation management plans for the LMMA/MPAs. DRD will also facilitate mainstreaming of R2R principles integrating ICM and IWRM into ISPs and coordinate partnerships with other government agencies. Therefore, staff at the national and Kaupule levels, as well as office space and annual budgets, with a total of US\$ 473,566.75, will serve as the baseline to the R2R project.

Similarly, Department of Solid Waste Agency of Tuvalu (SWAT) is responsible for waste management in Tuvalu, aiming to minimize pollution and impacts to the environment and the well-being of the people of Tuvalu. Staff time, annual budgets, vehicle support, and composting initiatives of SWAT, totaling to AUD1,398,986.20 (US\$ 1,088,000) will serve as a key baseline to the R2R project, particularly for efforts to control algal bloom in the Funafuti Lagoon under Component 2.

UNDP Fiji Multi Country Office supports the Government of Tuvalu to achieve its sustainable development objectives through partnering on issues related to governance, trade, and environment. The **Tuvalu Trade Capacity Development and Institutional Strengthening Project** (US\$ 50,000) will serve as a baseline for the R2R project with a shared objective to enhance sustainable economic development. The Tuvalu Trade Project will assist in further mainstreaming sustainable resource management (i.e. solid waste management) into other key sectors of the economy.

Building on the existing baseline initiatives led by Government of Tuvalu (GoT) and Development Partners related to marine and coastal biodiversity conservation and water and land management, the R2R project will address the remaining gaps and sustainable development challenges related to natural resource management, with a particular focus in the areas of:

- **Data** collection/update, management, assessment and communication;
- Participatory planning, establishment, monitoring, and management of **protected areas**;
- Implementation of island-specific, community-based **land and water management** initiatives; and
- Enhancing **national and local institutions and capacities** to develop and sustain tools and **governance** systems for integrated, long-term R2R approach that combines BD, ICM, IWRM, and BD principles.

A.5 Incremental / Additional cost reasoning:

No substantive changes since PIF approval. In summary, incremental / additional cost reasoning for each Component are set out as follows:

Component 1: The GEF funds will be used to harmonize management arrangements and regulations in protected areas that have been established in a haphazard manner and incorporate these into national policy. Locally Managed Marine Area (LMMA) including Marine Protected Areas (MPAs) have been established independently by the Island Councils but the Tuvalu government has lacked the capacity and logistics to assess their status and develop best practice. Moreover the few staff in the Department of Environment have limited logistical resources to visit these widely separated islands. With a GIS-based information management system, the government, communities and NGOs will be able to make better decisions on land use and management. The target to increase LMMA's by 15% is beyond reach without outside assistance.

Component 2: The GEF funds will be used to enhance integrated land and water management through targeted interventions implemented in the 3 selected islands of Nanumea, Nukufetau, and Funafuti. This will be achieved

through the adoption of integrated landscape management practices in the island communities, which will be facilitated by improving/establishing a resource inventory for land and water, characterization of soil. This will be incorporated into a national GIS system. Furthermore, degraded areas will be re-vegetated with indigenous hardwood tree species, which will improve hydrological functions, coastal resilience, and livelihoods. In Funafuti, water quality issues will be tackled through the implementation of remedial measures proposed through previous studies conducted by Alofa Tuvalu. The effectiveness of these measures will be monitored through water quality testing throughout the project.

Component 3: The GEF funds will be used to build understanding and capacity in the outer islands of Tuvalu into the concepts of holistic and integrated management: the R2R approach. Management of natural resources is predominantly through a sectoral approach such that external funds are needed to bring all sectors of governmental and the community together to share the management of natural resources; especially on the outer islands where there is limited government capacity and the Kaupule have minimal understanding of the potential impacts of climate change and current adaptation mechanisms.

Component 4: The GEF funds will assist Tuvalu improve and establish a GIS-based environmental Information Management System. However Tuvalu lacks the resources and capacity to fully develop this and make these features readily available to all sectors of government and community.

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:

Associated social and environmental risks are expected to be limited and low for the Tuvalu R2R project. A risk is identified in relation to Indigenous People³ where conflicting views amongst the indigenous communities on the islands over Locally Management Marine Areas (LMMA) in terms of its size, location and management methods/ authorities. This has been reviewed within the Social and Environmental Screening Process, where the project has identified that this risks will be managed through the utilization of community participatory approaches and dialogue in the development of management plans. In addition, South – South cooperation by having a representative from a successful LMMA community sharing results and best practices with other communities will also be explored. The GEF Principles and Guidelines for Engagement with Indigenous Peoples will also inform the project’s engagement with communities in the outer islands.

Analysis and mitigation measures of key risks are presented in the below table:

Description	Impact & Probability	Mitigating measures
Pressure on the environment and natural island resources due to poverty, increase in population on Funafuti and pressure for economic development.	The risk would prevent the project from delivering all of its Outcomes P = 1 I = 4	The project aims to continue to bring about transformational change in the mindset of the respective communities through raising awareness on the consequences of unsustainable use of the environmental resources, with actual examples from Tuvalu, the Pacific and other parts of the world. At the same time, the community will be made aware of best practices (e.g. SLM, IWRM, ICM) that help ensure economic livelihoods and also protect the environment.
<i>National Institutional Risks:</i> Ineffective coordination across Implementing	The risk would prevent the project from delivering all	The risk will be mitigated by the Memorandum of Understanding that has been signed between DoE and DoA, DoE and Dept of Lands and Survey and DoE and MoHARD, in which they would all agree to appoint a dedicated project focal point from a Director-

³ While there is no single definition of Indigenous Peoples, self-identification is an important criterion for determining indigenous status. Other social and cultural criteria that may be relevant to identifying Indigenous Peoples include collective attachment to land, the presence of customary institutions, indigenous language, and primarily subsistence-oriented production (GEF 2012). Based on these criteria, the majority of the Tuvaluan population is considered to be Indigenous People. There are very few percentage of minority groups, who are from other Pacific Island Countries such as Fiji or Kiribati, with access to basic rights as they are often intermarried with local Tuvaluans.

Description	Impact & Probability	Mitigating measures
Partner (DoE) and Responsible Parties for project activities; Lengthy and multiple approval processes within DoE hinders timely approval and decision-making that delay implementation of project activities; DoE does not have enough staff to participate in all activities	of its Outcomes P = 2 I = 2	level (with an alternate). This will ensure that the interface of the R2R and NAPA2 project remains constant throughout the project implementation and continuity of technical inputs from these departments. Moreover, in light of the importance of LMMA work, the project will recruit a LMMA officer that will be outposted in the Department of Fisheries to undertake project-related activities. S/he will provide an additional interface with the PMU. Technical meetings among these officers and PMU staff, including the Chief Technical Advisor, will take place on an ad hoc basis but at least once a month. Furthermore, detailed management arrangements have been developed in the project, where effectiveness of the decision-making will be reviewed annually and/or on need base.
<u>Local Institutional Risks:</u> Conflicting views over Locally Management Marine Areas (LMMA) e.g. size, location and duration amongst the Island Community members; Kaupules unwilling/ unable to allocate their discretionary budgets (core revenues) for R2R related conservation programmes or initiatives	This risk may delay project from implementing community based marine conservation plans P = 1 I = 4	Community participatory approaches and dialogue will be used in developing management plans. South – South cooperation will also take place by having a representative from a successful LMMA community sharing results and best practices with other communities within Tuvalu and with other Pacific R2R countries. The GEF Principles and Guidelines for Engagement with Indigenous Peoples ⁴ will also inform the project’s engagement with communities in the outer islands. In addition the R2R project places a considerable emphasis on demonstrating the adaptation impacts from the project through SLM interventions, marine biodiversity baseline studies and coastal management (protection) techniques, so that willingness of the community members on using their resources for future R2R processes is maximized.
Regular access to outer islands is limited and transportation costs are often prohibitive	This risk delay implementation of activities as well as monitoring and evaluation on outer islands P = 2 I = 4	Better planning and coordination between government departments and other UNDP supported projects to have joint outer island missions. The project will also co-sponsor enhancing transportation for the Fisheries department along with NAPA II project.
Potential rapid staff turnover and limited local human resource base could compromise the project management unit and delay implementation	This risk temporarily delay project coordination unit P = 3 I = 2	Biannual trainings held at UNDP with 2 PMU staff attending so that if one leaves, continuity is ensured
Extreme climate events such as cyclones or severe droughts will affect the progress of the R2R project	The risk would prevent the project from delivering all of its Outcomes P = 2 I = 4	The annual probability of severe cyclones affecting the country is relatively low, however, Tuvalu’s outer island has been severely affected by Cyclone Pam in March 2015. In addition, as was observed in 2010, a severe drought resulted in a national emergency and many government agencies, including DoE, were engaged in early response and recovery activities which caused delays in the implementation of the NAPA1 project. Climate change poses major long-term risks to all resources in Tuvalu with potentially stronger cyclones, changes in rainfall, sea level rise and coral bleaching plus ocean acidification. A key objective of the R2R project is to build resilience in the islands, the island vegetation, agricultural production systems, corals reefs and people to deal with such threats in the longer term. El-Nino connected droughts pose a severe risk, both from desiccation of newly planted trees and through contributing to greatly increased wildfire hazard. In dry zones, tree planting should be undertaken early in the wet season and after the soil has become moistened (usually late November/early December).
Political Risks: Changing leadership at national and	The risk would prevent the project	The project will work closely with technical advisory group/ national advisory committee on climate change (NACCC), GEF Operational Focal Point, island Kaupules

⁴ http://www.thegef.org/gef/sites/thegef.org/files/publication/GEF%20IP%20Part%201%20Guidelines_r7.pdf

Description	Impact & Probability	Mitigating measures
local level resulting in delays or stops to project implementation	from delivering all of its Outcomes P= 2 I = 4	to ensure that these key stakeholders are updated with progress and would be able to keep nation and local leaders updated.

P = Probability on a scale from 1 (low) to 5 (high); I = Impact on a scale from 1 (low) to 5 (high)

A.7 Coordination with other relevant GEF financed initiatives

This project is part of the programmatic approach entitled "*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*". Under the Pacific-wide regional framework, Tuvalu’s R2R project links and complements other GEF interventions in Tuvalu including close coordination with the following ongoing initiatives:

The “IW Regional: Integrated Water, Land, Forest & Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods (*R2R Regional Support project*)” (GEF/UNDP/SPC-SOPAC, CEO endorsed 6 April 2015) has been designed to support and coordinate the 15 national R2R projects, including the Tuvalu R2R project. This regional initiative builds on the successful completion of the Pacific IWRM project, the PICs will embark on the next phase of the stepwise progression towards catalyzing transformational change, an effort which initiated in 1997 during the preparation of GEF International Waters Strategic Action Programme (SAP) for Pacific Island Countries, endorsed by the Heads of States of the 13 PICs. The objective of this project is “to maintain and enhance Pacific Island countries’ (PICs) ecosystem goods and services (provisioning, regulating, supporting and cultural) through integrated approaches to land, water, forest, biodiversity and coastal resource management that contribute to poverty reduction, sustainable livelihoods and climate resilience”.

The Regional R2R Project will integrate and demonstrate climate resilient R2R in a holistic manner by building on the implementation of national IWRM plans in pilot sites in each country and linking this to the upland resilience approaches together with enhanced ICM. In Tuvalu, the Regional R2R project is designed to focus on:

- Demonstration of innovative approaches to ***pig waste management*** on Funafuti Atoll, Tuvalu
- Development and operation of a ***targeted science programme*** to: improve the operation of on-site waste management systems; and, to identify causal links between land-based contaminants and the degradation of lagoon health
- National and community ***capacity building and awareness activities*** in support of the enhance uptake of sustainable human and pig waste management systems on Funafuti and outer atolls and islets

The project will also serve a coordination function with the national R2R projects including the Tuvalu R2R Project. It will link directly to Component 4 of the Tuvalu R2R projects where representatives from Tuvalu will participate in the various opportunities for collaborative approaches, experience sharing, and learning toward future scaling up that will be led by the R2R Regional Support project.

Tuvalu is also part of another regional initiative entitled Pacific Alliance for Sustainability (PAS): “*Implementing the Island Biodiversity Programme of Work by Integrating the Conservation Management of Island Biodiversity*” (*IIB project*) (2012 – 2015) (GEF/UNEP/SPREP – GEF Grant US\$1,817,600). It is supporting Tuvalu and 3 other PICs to carry out a range of activities with their local communities to produce and strengthen management actions to save threatened species and ecosystems and to help ensure sustainable use of natural resources. Of relevance to the R2R project in Tuvalu is the integrated ecosystem-based management (EBM) approach which entails emphasizing the connectivity between systems, such as between land, sea and people. The IIB project has conducted a socio-economic survey on Funafuti to identify community perceptions on conservation of marine

resources. They plan to expand these efforts to other 3 islands. The R2R project will build on the findings of the socio-economic surveys to be completed through the IIB project to enhance the design and formalization of the LMMA/MPAs. The IIB project will contribute Component 1 and 4 of the R2R project.

The “*Increasing Resilience of Coastal Areas and Community Settlements to Climate Change*” (*NAPA I and I+*) (GEF US\$3,060,000; DFAT AUD 1,000,000) (2009 - 2015) project is designed to increase the protection of livelihoods in coastal areas in all inhabited islands of Tuvalu from dynamic risks related to climate change and climate variability. R2R will build on the food security efforts of NAPA I that took place in all 9 islands, and ensure that there are linkages to R2R’s efforts in promoting terrestrial biodiversity under Component 2, particularly in Nanumea and Nukufetau. The R2R project will also build on the various baseline data gathered through the NAPA I implementation on soil quality, gender, and home gardening assessments, which will feed into the knowledge management efforts under Component 4.

The “*Effective and responsive island-level governance to secure and diversify climate resilient marine-based coastal livelihoods and enhance climate hazard response capacity*” (*NAPA II project*) (GEF/UNDP – GEF Grant US\$4,325,000) is a 4 year project that started in 2013 and is being implemented to closely align with this R2R Tuvalu project. This project plans to build resilience to climate impacts and support food security by enhancing traditional fishing combined with new sustainable fishing technology. Communities will be assisted to enhance locally managed marine protected areas and develop mechanisms to leverage international financing for climate change adaptation. The R2R project will link closely with the NAPAI project on matters relating to LMMA/MPA establishment, monitoring, and awareness raising for community-based marine resource management under Component 1. It will further coordinate and collaborate operationally and technically on various aspects of project implementation, including but not limited to, outer island travel and technical expertise.

In addition to the abovementioned ongoing GEF financed initiatives, the project will also build upon the results and lessons learned from previous GEF projects including, but not limited to: A Pacific regional initiative, “*Pacific Adaptation to Climate Change*” (*PACC project*) (2013 – 2015) (GEF/UNDP/SPREP – GEF/SCCF US\$13,125,000 and DFAT) and “*Implementing Sustainable Water Resources and Wastewater Management in Pacific Island Countries*” (*Pacific IWRM project*) (GEF/UNDP/SPC-SOPAC – GEF TF US\$9,748,136).

Furthermore, the project will directly build upon and collaborate with the following non-GEF projects:

- The EU-Global Climate Change Alliance (GCCA), PSIS “*Improving agroforestry systems to enhance food security and build resilience to climate change in Tuvalu*” (2013-2015 – EUR 500,000) demonstrates enhanced agricultural production on under-utilized land by establishing integrated agro-forestry demonstration sites on Nukufetau and Nanumea where unproductive trees (mainly coconut trees) will be thinned, and the soil will be enhanced with compost and replanted with crops and trees. The project will be recommending the import from SPC of “climate ready” plant collections developed by the SPC Centre for Pacific Crops and Trees (CePaCT). EU-GCCA trained teams from the Department of Agriculture will then train the land owners and communities in the cultivation and usage of the climate resilient crops (integrated agro-forestry farming systems). The R2R project will adopt a clear strategy for future intervention needs in both islands based on the results of this project to maximise donor interventions on food security related issues on the islands.
- USAID is supporting the *Pacific regional Coastal Community Adaptation Project (C-CAP)* and Tuvalu is one of the focal countries for the provision of a small-scale infrastructure investment. Funding assistance will support three components; including (i) rehabilitating or constructing new, small scale community infrastructures, (ii) building capacity for community engagement and (iii) integrating climate change resilient policies and practices into long term land use plans and building standards. Activities and funds allocated from this project to Tuvalu are currently being developed. The R2R project will support this initiative by helping to provide appropriate SLM and ICM related interventions on Nanumea and Nukufetau.

- The R2R project will ensure close coordination with the findings of the NZAID/World Bank “*Tuvalu Borrow Pits Remediation Project*” (NZ\$872,145). Particular links with the R2R project will be the issue of pollution sources on the over-crowded parts of Funafuti and remediation measures that can be introduced to mitigate future risks on lagoon water contamination. The completion of an Environmental and Social Impact Assessment and Management plan is being produced through the NZAID support programme.
- The *Taiwan Horticultural Crop Development (Happy Garden) Project* (Ministry of Foreign Affairs, R.O.C. US\$1,431,000) in Tuvalu is designed to assist with and demonstrate technologies associated with vegetable and fruit cultivation and production as part of a wider promotion of the consumption of fruits and vegetables. The project aims to improve production, reduce imports, expand home gardening and promote the consumption of nutritious lunches through the operation of school vegetable farms. Through providing technical assistance through demonstration farms (“Happy Friendship Farm” or “Happy Garden”), the project has produced over 145 tons of fruits and vegetables. Furthermore, the project also works with EU to build composting facility where composts are then utilized for farming. The R2R project will collaborate with the Happy Garden project under Component 2 to utilize their successful training modules, manuals, and techniques to train representative from Nanumea and Nukufetau where sustainable livelihoods and agriculture practices will be implemented as part of SLM efforts.
- The SPC/GIZ ‘*Coping with climate change in the Pacific Island Region (CCCPIR)*’ programme aims to strengthen the capacities of Pacific member countries and regional organisations to cope with the impacts of climate change. In Tuvalu, the Ministry of Finance and Economic Development and Department of Environment requested SPC/GIZ to support the Ministry to conduct a cost-benefit analysis training and mentoring support to provide a stronger foundation for policy and programme decisions. Furthermore, the CCCPIR project is supporting the Tuvalu Association of NGOs (TANGO) to strengthen the capacity of their members to access climate change projects and programmes and partner with the government on the implementation of existing programmes. Additionally, the CCCPIR project also supports the DoE to strengthen their information and knowledge management systems. The R2R project will work very closely with CCCPIR in Component 4, where the enhanced environmental information management system established by the project will build on existing knowledge management efforts initiated by the CCCPIR project.

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1 Describe how the stakeholders will be engaged in project implementation.

Planning, coordination and management of this project is led by the Department of Environment (DoE). The DoE on behalf of the Government of Tuvalu will also function as the GEF Executing Agency, and Project Board Executive. In addition, the Department of Fisheries, Agriculture, and Home Affairs will be the responsible on technically and operationally leading the implementation of the LMMA, SLM, and R2R (ICM-IWRM) activities.

Below table and diagrams (stakeholder web) describes which stakeholders will be engaged throughout the R2R project implementation in Tuvalu.

Output	Stakeholder
1.1.1	Environment, Rural Development, Lands, ICT, Attorney General & Women Departments, Kaupules, <i>IIB/NAPA 2 & NBSAP Review Projects</i> , NGOs, , 9 Island Communities, Fisherman Association, TANGO, Alofa Tuvalu SPC/SOPAC, USP & SPREP(PICCC)
1.1.2	Environment, Rural Development, Lands, Women, Department Kaupules, <i>IIB/NAPA 2 & NBSAP Review Projects</i> , NGOs, Fisherman Association, ICT, 9 Island Communities, SPC/SOPAC, USP
1.1.3	Environment, Rural Development, Lands, & Women Departments, Aid Coordination Unit, Kaupules, <i>IIB & NAPA 2, CLGF (Commonwealth) & SLG Projects</i> , NGOs/TANGO, Attorney General, Planning, Fisherman Association, ICT, 9 Island Communities

2.1.1	Environment, Agriculture, Lands, Statistics, Rural Development, Metereology & Women(TNCW) Departments, Kaupules, EU_GCCA PSIS/USP, NAPA 1, SLM, Tuvalu Overview Projects, 3 island Communities, TANGO, SPC/SOPAC
2.1.2	Environment, Agriculture, Lands, Rural Development, Department of Kaupules, EU_GCCA PSIS Project, TANGO, 3 island Communities, TNCW, Tuvalu Overview , SPC/SOPAC
2.1.3	Environment, Agriculture, Lands, Rural Development, Public Works, Health, & SWAT (EU TWWS) Departments , Coordination Unit Kaupules, <i>Alliance EU_GCCA (USP Funafuti), IWRM, PACCC Projects</i> , TANGO, 3 island Communities, SPC/SOPAC, PACE, USP
3.1.1	Environment, Agriculture, Fisheries, Planning, Media, Education, Lands, Budget, Attorney General/Legal, Inland Revenue, Women, Tourism & Rural Development Department, Coordination Unit (and all other departments), Kaupules, SWAT, <i>IIB, NAPA 2, EU_GCCA PSIS, IWRM, PACCC, USAID C-CAP, SLG, CLGF, NBSAP Review, PPCR-PR and CCCPIR (GIZ/SPREP) Projects</i> , 3 island Communities SPREP,
3.2.1	Department of Agriculture, Environment, Fisheries, Media, Education, Lands & Rural Development, Coordination Unit Kaupules, <i>IIB, NAPA 2, PPCR-PR and CCCPIR Projects</i> , 9 island Communities, TANGO, SPC/SOPAC, USP
4.1.1	Department of Agriculture, Environment, Fisheries, Media, Education(Library), Lands, ICT, Statistics, Foreign Affairs & Rural Development, Aid Coordination Unit, Kaupules, <i>IIB, NAPA 2,EU_GCCA/PSIS, & Alliance USP/PACE, SLG, PPCR-PR and CCCPIR Projects</i> , 3 island Community, TANGO, SPC/SOPAC, USP, SPREP, EU, ADB, GEF, UNDP, WB donors

Stakeholder Engagement Web

B.2 Socio-economic benefits of the project:

Employment is limited in Tuvalu, where most formal jobs are in the public sector, and around 75% of Tuvalu's labour-force working in the subsistence and informal economy. Subsistence agriculture and fishing remain the primary economic activities, particularly in the outer islands. Migration from the outer islands to Funafuti, and under-employment of youth put considerable pressure on the job market in Funafuti. According to the 2002 census, of the 5,950 Tuvaluans aged 15 and over, 58% were economically active and part of the labour force. A larger proportion of males (70%) than females (48%) were economically active and males made up 57% of the labour force. By sector, employment was concentrated in the public sector (39%), and the semi-public sector or public corporations (30%). The private sector accounted for 28% of employees and non-profit organisations for 3%". (ILO Decent Work Country Program Tuvalu 2010).

Within the challenging economic context in Tuvalu, the socio-economic benefits to be delivered by the R2R Project at different levels are outlined below:

The R2R project will provide for improved plans, policy and legislation on Biodiversity, Integrated Water Resource Management (IWRM), Integrated Coastal Management (ICM) and Sustainable Land Management (SLM) covering catchments, land, water, forests, fisheries, mangroves, seagrass meadows and coral reefs. Building on the current national efforts to improve biodiversity conservation management and planning (marine protected area management and sustainable land management), the R2R project will provide incremental funding for the provision of technical support to the government and other stakeholders including local communities to create an enabling environment for effective governance through integrated "ridge to reef" planning (incorporating IWRM and ICM) to help reduce anthropogenic pressure on islands and within atoll lagoons from unsustainable fishing, land usage (including poor agricultural practice) and competing natural resource uses. This will be achieved through catalysing sustainable livelihoods, water pollution reduction and habitat conservation measures. Technical assistance for the application of R2R practices and principles, supported with community-based awareness raising and communication initiatives will facilitate the adoption of island ecosystem protection and adaptive resource management methods. This will result in a significant improvement of effectiveness in Locally Managed Marine Areas (LMMAs) including Marine Protected Areas (MPAs) and participatory, community-led governance to improve the management of ecosystem services in Tuvalu.

The R2R project will in particular introduce integrated R2R methods that link IWRM, ICM and SLM on Tuvaluan islands with major socio-economic benefits including reduced flooding of croplands, vulnerable settlements, villages and commercial centres, ecosystem-based coastal protection and alternative cropping practices using salt tolerant vegetation. Biodiversity conservation with terrestrial and marine resources and practical measures at the community level such as reef protection measures have been readily endorsed by R2R stakeholders as sustainable development measures which produces higher benefits especially to disadvantaged groups within communities.

The project focuses on institutional strengthening and improving overall coordination for conservation and provides an overarching policy framework for biodiversity conservation (NBSAP). By strengthening this framework, it will contribute to the overall institutional and policy framework for natural resource management, and therefore contribute to socio-economic and sectoral development. Specifically, the project has been designed to strengthen the conceptual and operational links between national planning and local implementation and this will further support the government's strong decentralized approach. Meanwhile, the project also focuses on strengthening the awareness and capacities of local island communities (Falekaupules) and councils (Kaupules) on Tuvalu's biodiversity wealth. Tuvalu's international commitments will also bring about national benefits as local governments would enhance their understanding on the socioeconomic value of their environment and natural resources. This will enable Tuvalu as a nation to better plan, budget for and access environmental and biodiversity finances available nationally and internationally.

Examples of additional national benefits are listed below:

- Improved legislation on integrated natural resources management (land, water, forests, fisheries, mangroves, coral reefs);
- Nation benefits from its island communities having more livelihood options that may reduce island migration to Funafuti and associated social, economic and infrastructure stresses;
- Sustainable production of economically important species such as pulaka, coconut, sandalwood, numerous fin fish including parrot fish and groupers, /mangrove crabs, prawns and freshwater mussels etc;
- Increase in national and Government capacity to mainstream ICM, SLM and IWRM in Island Strategic Planning processes;
- R2R project activities generate important information and research which can be useful in other parts of Tuvalu and other low lying atoll nations such as Kiribati, Marshall Islands, Tonga and FSM.

At the local level, R2R's focus on environment and sustainability will generate long-term positive benefits such as continuing earnings from livelihood projects and empowering of women and youth with improved incomes and living standards. Villagers visited during the PPG phase advanced proposals for small scale agricultural and fishery projects for women and livestock, fishing and forestry and projects for youth; many of which will be supported during project implementation. Furthermore, the R2R project will generate economic and financing mechanisms to resource owners, and improving sustainability of LMMA systems. This will entail increasing the financing of LMMA systems and developing sustainable financing models. Local communities especially women and youth will be empowered as project leaders and participants through marine and island planning and management, information awareness, project training and scholarships and new employment opportunities created for island communities. Income levels of women and youth will increase with new commodities and increased productivity under the livelihood projects. Women and youth are focused on particularly as they form an important percentage of the islands population and therefore the economic strength of the community. With empowerment programme under R2R their earning and buying power will increase and women can collectively take on and generate other economic activities aside from their own needs and that of their immediate families. As a result, the project will contribute to enhancing people's livelihood/income, addressing poverty, empowering women, catalyzing the national economy, and working towards the global agenda on sustainable development.

Examples of local benefits to island coastal communities are listed below:

- Improved local environment – providing valued goods and services such as potable water and wild-harvested foods and plants;
- Increased and diversified livelihood and income-generating opportunities;
- Increased local ecosystem and community resilience to climate change – especially reduced habitat deterioration and improved terrestrial habitat management through planting and SLM activities;
- Greater sustainability of local food production/agro-ecosystems – through better soil conservation farming practices and agroforestry.

B.3 Explain how cost-effectiveness is reflected in the project design:

The project has been designed to be cost effective in several ways. Firstly, it will focus on building on the collective knowledge and experiences from government, non-government, academic institutions, and national and international community-based organizations to plan for biodiversity conservation prioritization and developing action plans that would set up a sustainable mechanism for enhanced marine and terrestrial conservation and resource management. It also focuses on the use of existing government mechanism through mainstreaming within national planning exercise rather than through any new mechanism, further ensuring cost-effectiveness. Most importantly, due to the development of national priorities and action plans for conservation, precious and limited resources available in the country will be used wisely leading to less wastage of such resources.

From consultations with the island councils and community members it appears that a key lesson learnt from past and ongoing GEF/UNDP supported projects in Tuvalu is to support the strengthening of engagement and ownership of island Kaupules in demonstration activities. A key lesson learnt from the NAPA projects is that some island councils do not feel a strong sense of ownership of the project, even though there are Island Community Officers present on each island, because they report directly to the Department of Environment in Funafuti, and as a result the island “ownership” appears to be diluted. In addition, some of these Island Community Officers have often spent periods of 1 – 3 months off island. For this reason, the cost effectiveness of the R2R project is being demonstrated through its co-financing support (with the NAPA II project) for specific “focal point officers” for each pilot island who will be based at the respective island councils office and who will report directly to the Department of Environment through the island council Kaupule (for Nanumea and Nukufetau for example). This approach will also complement the NAPA II team approach and thus help to reduce some resource costs such as for office space, laptop and budget for other expenses e.g.: communication, monitoring and evaluation etc.

A common project board will also be utilized for all UNDP supported GEF financed project including NAPA I and II. This will enhance synergies and strategic decision-making regarding allocation of resources, implementation focus, and operations, and would enhance coordination between and amongst the various ongoing sustainable development initiatives in Tuvalu.

The project will address the identified barriers in national and local capacities for sustainable natural resource management and planning, primarily through the delivery of technical assistance. This financial modality is considered the most appropriate means by which to strengthen the systemic planning and institutional capacities of the national system for biodiversity conservation. The barriers identified in the R2R project relate to gaps in capacities, and barriers to mainstreaming biodiversity into sub national level. These will be addressed through the development of national plan, tools and models, and targeted capacity assistance to overcome capacity barriers.

Concerning the need for technical support/training, regional agencies (e.g. SPC/SPC-SOPAC, SPREP and USP) will be engaged and national consultants wherever possible. Partnering with regional agencies will be cost-effective due to the fact that the project can build on their expertise and experience, as well as their existing mandate to support Pacific Island countries technically on areas that will be addressed under the R2R project. These win-win partnerships have already been utilized successfully through ongoing GEF/UNDP projects. For example, the NAPA II project has engaged SPC to provide technical support for four islands and is already considering their support for remaining islands. Similar partnerships will be explored and implemented in all components of the R2R project.

C. DESCRIBE THE BUDGETED M& E PLAN:

The project will be monitored through the following Monitoring and Evaluation (M&E) activities. The M&E budget is provided in the table below.

Project Inception:

Participation of Island Council representatives from the inception stage onwards will be key for project success. For this reason, two (2) separate inception events are planned as follows. The PPG stage has worked effectively to ensure there is project “buy-in” from Island Councils following specific island missions to Nanumea, Nukufetau, Nukulaelae, Niulakita, Vaitupu, and Funafuti.

An Inception Workshop Report will be the key output of this Phase and is proposed to be completed and formally accepted within 3 months from the project start date. This is crucial to building ownership for the project results and to plan the first year annual work plan. The Inception Workshop (and Inception Report) will address and document a number of key issues including:

1. Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
2. Based on the project results framework and the relevant SOF (e.g. GEF) Tracking Tool if appropriate, will be finalized along with the HACT Assurance Plan and the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks. These will all be key items on the Inception Workshop agenda.
3. Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled. One spot check a year (dates) will be agreed upon to assess whether budget costs exceed USD450k/yr.
4. Discuss financial reporting procedures and obligations, and arrangements for annual audit.
5. Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held back-to-back with the inception workshop and every year thereafter.

An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

To sustain momentum on this aspect, a Project Awareness Workshop will be held within 2 months of the Inception Workshop. This is designed for the attendance and involvement of all Kaupule secretaries and island planners as they are the key focal points on each island. This “Awareness Workshop” will be held to help instill clarity of the R2R project in Tuvalu and to improve understanding of the UNDP technical and operational guidelines that must be adhered to, as a precursor to the more formal technical Inception Workshop (see below). This event will be held in Funafuti. It will include a sub event (for the project coordination unit) that includes some initial training and awareness on UNDP/GEF operational and programming components of the project (financial, operational & monitoring and evaluation). It will also be used to assign roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. This is likely to be held in UNDP MCO offices in Fiji. The event will also be used to plan activities in collaboration with NAPA II Project.

Quarterly

- Progress made will be monitored in the UNDP Enhanced Results Based Management (RBM) Platform.
- Based on the initial risk analysis submitted, the risk log will be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually

1. Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and SOF (e.g. GEF) reporting requirements.

The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

Periodic Monitoring through site visits

UNDP CO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

Mid-term of project cycle

The project will undergo an independent Mid-Term Review at the mid-point of project implementation (October 2017). The Mid-Term Review will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-EEG. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the [UNDP Evaluation Office Evaluation Resource Center \(ERC\)](#).

The relevant SOF (GEF) Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

End of Project

An independent Final Terminal Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and SOF (e.g. GEF) guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-EEG.

The Final Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the [UNDP Evaluation Office Evaluation Resource Center \(ERC\)](#).

The relevant SOF (e.g. GEF) Focal Area Tracking Tools will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report, which is a formal output requirement by GEF/UNDP in facilitating financial closure of the project, will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where

results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

Communications and visibility requirement

Full compliance is required with UNDP's Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: http://www.thegef.org/gef/GEF_logo. The UNDP logo can be accessed at <http://intra.undp.org/coa/branding.shtml>.

Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf. Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

M&E Workplan and Budget

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception and Induction Workshop and Report	<ul style="list-style-type: none"> ▪ Project Coordinator / PIU ▪ UNDP MCO 	Indicative cost: 20,000	Within first two months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> ▪ UNDP MCO / UNDP RTA/Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. 	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on <i>output and implementation</i>	<ul style="list-style-type: none"> ▪ Oversight by Project Director ▪ PIU 	To be determined as part of the Annual Work Plan's preparation. Indicative cost per year: 4,000 (20,000 total)	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	<ul style="list-style-type: none"> ▪ Oversight by Project Director ▪ Project Coordinator / PIU ▪ UNDP MCO ▪ UNDP RTA 	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> ▪ Oversight by Project Director ▪ Project Coordinator / PIU ▪ R2R Island Officers 	None	Quarterly
Mid-term Evaluation	<ul style="list-style-type: none"> ▪ Oversight by Project Director ▪ Project Coordinator / PIU ▪ UNDP MCO ▪ UNDP BRH / RTA ▪ External Consultants (i.e. evaluation team) 	Indicative cost: 40,000	At the mid-point of project implementation.
Final Evaluation	<ul style="list-style-type: none"> ▪ Oversight by Project Director ▪ Project Coordinator / PIU ▪ UNDP MCO ▪ UNDP BRH / RTA ▪ External Consultants (i.e. evaluation team) 	Indicative cost : 50,000	At least three months before the end of project implementation
Project Terminal Report	<ul style="list-style-type: none"> ▪ Oversight by Project Director ▪ Project Coordinator / PIU 	0	At least three months before the end of the project
Audit	<ul style="list-style-type: none"> ▪ UNDP MCO ▪ Project Coordinator / PIU 	Indicative cost per year: 6,000 (30,000 total)	Yearly

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Assurance Plan and annual monitoring	<ul style="list-style-type: none"> ▪ Executing Agency / Implementing Partner ▪ UNDP MCO ▪ Executing Agency / Implementing Partner ▪ Project Coordinator / PIU ▪ Finalisation of HACT assurance plan facilitated during inception period (i.e. during indication and/or inception workshop) ▪ Spot check conducted ¾ into first year ▪ Annual spot check on HACT assurance plan 	0	Yearly
Validation of project progress in pilot sites (outer islands)	<ul style="list-style-type: none"> ▪ UNDP MCO ▪ Project Coordinator / PIU ▪ Executing Agency / Implementing 	For GEF supported projects, paid from UNDP IA fees and operational budget	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP MCO staff and travel expenses		US\$ 160,000 (+/- 5% of total budget)	

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

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

NAME	POSITION	MINISTRY	DATE (MM/DD/YYYY)
Pepetua Election LATASI	Acting Director of Environment and GEF Operational Focal Point	Department of Environment, Ministry of Foreign Affairs, Trades, Tourism, Environment and Labour (MFATTEL)	8 August 2013

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Adriana Dinu, UNDP-GEF Executive Coordinator		20 May 2015	Shoko Takemoto	+679.331.2500	shoko.takemoto@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK

<p>This project will contribute to achieving the following Country Programme Outcome as defined in CPAP/CPD or UNDAF: UNDAF Focus Area 1: Environmental Management, Climate Change and Disaster Risk Management Regional UNDAF Outcome 1.1: Improved resilience of PICTs, with particular focus on communities, through integrated implementation of sustainable environmental management, climate change adaptation/mitigation, and disaster risk management. Tuvalu UNDAF Outcome 1.1: National and local authorities and partners enhance resilience of vulnerable communities and natural ecosystems to threats, shocks, disasters, and climate change Output 1.1: Strengthened capacity of national and Falekaupule to develop and mainstream integrated policies on natural resources, environment, climate change, disaster risk reduction and management into national, sectoral, planning and budgetary processes.</p>					
<p>Country Programme and/or UNDAF Outcome Indicators: Outcome 1.1: Percentage of terrestrial and marine areas protected (MDG7) (baseline = 0.2%); Percentage of communities supported with climate change adaptation and disaster risk reduction measures (baseline: 81.3%).</p>					
<p>UNDP Strategic Plan Indicator: Output 2.5: Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation</p>					
<p>Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): 1. Mainstreaming environment and energy</p>					
<p>Applicable GEF Strategic Objective and Program: BD-1: Improve Sustainability of Protected Area Systems: BD-2: Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes, Seascapes and Sectors: LD-3: Integrated Landscapes: Reduce pressures on natural resources from competing land uses in the wider landscape: IW-3: Support foundational capacity building, portfolio learning, and targeted research needs for joint, ecosystem- based management of trans-boundary water systems:</p>					
<p>Applicable GEF Expected Outcomes: BD-1: Outcome 1.1: Improved management effectiveness of existing and new protected areas. BD-2: Outcome 2.1: Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation. Outcome 2.2: Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks. LD-3: Outcome 3.2: Integrated landscape management practices adopted by local communities. IW-3: Outcome 3.3: IW portfolio capacity and performance enhanced from active learning/KM/ experience sharing.</p>					
<p>Applicable GEF Outcome Indicators: Indicator 1.1(BD-1): <i>Protected area management effectiveness score as recorded by Management Effectiveness Tracking Tool.</i> Indicator 2.1(BD-2): <i>Landscapes and seascapes certified by internationally or nationally recognized environmental standards that incorporate biodiversity considerations (e.g. FSC, MSC) measured in hectares and recorded by GEF tracking tool.</i> Indicator 3.2(LD-3) <i>Application of integrated natural resource management (INRM) practices in wider landscapes.</i> Indicator 3.3 (IW-3) <i>GEF5 performance improved over GEF4 per data from IW Tracking Tool; capacity surveys.</i></p>					
Objectives and Outcomes	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Project Objective	To preserve ecosystem services, sustain livelihoods and improve resilience in Tuvalu using a 'ridge-to-reef' approach				
	Expansion area (in ha) over existing conservation areas	Existing conservation area has been verified as 76.026 as per PoWPA. 15% of this is 11.4 km ² or approximately 12km ² (rounded up to this figure throughout the Prodoc),	Approximately 1,200 ha or 12 km ² expansion area	Ground truth surveys completed to help achieve the Outcome 1.1 expected target to expand the LMMA/MPA network to 87.7 km ² (or more) after year 5.	Government agencies aware of and committed to marine biodiversity conservation and willing to use the new information collated in integrated policy decision making.
	The integration of new ridge to reef (R2R) knowledge and information into all appropriate national and island wide policy and legislation	Whole island planning (referred to as ISP) remains in its infancy in Tuvalu though it is being initially addressed within NAPA 2, though as of September 2014, no details on the ISP process are available.	8 ISPs have R2R principles integrated that incorporates ICM, MSP and IWRM	Review of legislation, policies, and ISPs	Continued political support and commitment for engaging communities into the planning and implementation process
COMPONENT 1 – CONSERVATION OF ISLAND AND MARINE BIODIVERSITY					
Outcome 1.1 <i>Improved management effectiveness of system of</i>	Status GIS-based information management system for biodiversity-	The current database on biodiversity parameters and natural resource data is available but not	1 updated/new national environment GIS-based information management	National Report (NR) to CBD using spatial and biodiversity data gathered through the	Kaupule and other NGOs have been involved in project conceptualization. They will need to be called upon during design and for the

<p><i>conservation areas composed of existing and expanded Locally Managed Marine Areas (LMMAs)</i></p>	<p>focused natural resource management.</p>	<p>organized/accessible. Tuvalu Marine Life (completed by Alofa Tuvalu) plus follow up activities are proposed for 2015 (to be funded by USAID).</p> <p>Existing baseline information is included on the ReefBase Project (http://pacificgis.reefbase.org) database.</p> <p>The fisheries department through their Community Fishing Centre are collecting catch data.</p> <p>Household Income surveys also data regarding fisheries and other natural livelihoods.</p> <p>5NR is current under implementation</p>	<p>system.</p> <p>At least 9 GIS maps for each Tuvalu LMMA/MPA (1 per conservation area) with data and information (including BD hotspots and existing projects), integrated into reports and plans, and distributed and utilised by decisions makers.</p>	<p>project.</p> <p>Quarterly and annual M&E reports from R2R Island Officer.</p> <p>Review of legislation, policies, and ISPs.</p>	<p>implementation of many of the planned activities. Moreover, community participation will be supported through signed agreements to ensure that communities are not disadvantaged and all activities will be totally funded.</p>
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Outcome 1.1 Outputs

<p>Output 1.1.1 National biodiversity surveys of terrestrial and marine fauna & flora completed, with specific targets on endemic species to develop the biodiversity component of the GIS-based management information system (as described in Output 4.1.1)</p>	<p>Number of biodiversity surveys of terrestrial and marine fauna and flora completed and updated every 2 yrs.</p> <p>Number of species surveyed based on agreed upon biodiversity indicators (including endemic species and other endangered species)</p> <p><i>(Supports delivery of GEF5 Indicator 1.1 & 2.1 (BD-1 and 2))</i></p>	<p>The fourth National Report (Convention of Biological Diversity) was produced 2009 and published available on CBD webpage. NBSAP was produced 2011 and endorsed in 2013. Specifics for island NBSAP sites are presented through currently not linked closely to R2R principles. The 2014 NBSAP is currently under review and a consultant has been engaged under UNEP.</p> <p>Previous survey has been conducted under various separate initiatives but not centrally stored and/or data analysis is incomplete.</p> <p>The IIP/ BIORAP has recommended that the implementation of MPAs must be island specific /contextualised i.e. management rules will vary per island depending on circumstances.</p>	<p>9 (1 per Island) surveys of terrestrial and marine fauna and flora completed and updated every 2 yrs.</p> <p>At least 50% of participants engaged in data collection and dissemination are from vulnerable groups of society (women, children, adolescents, and elderly).</p> <p>At least 30* species to be surveyed with agreed upon biodiversity indicators for monitoring <i>*to be reviewed during project implementation</i></p>	<p>National Report (NR) to CBD using spatial and biodiversity data gathered through the project.</p> <p>Quarterly and annual M&E reports from R2R Island Officer.</p> <p>M&E reports including baseline, and annual updates on monitoring results.</p> <p>New information (mapped data) held by Dept. of Lands and Survey and accepted by MFATTEL.</p> <p>Clear and measurable bio-indicators and targets set for all LMMA/MPAs.</p> <p>Effectiveness of the LMMA/MPA will be measured through biodiversity surveys conducted within and outside of the LMMA/MPAs.</p>	<p>Community management of LMMAs and associated scientific work is adequately resourced and function effectively.</p> <p>Community having strong interest in conservation of species which are not of economic/social value or are edible</p> <p>Loss of main source of livelihoods for district communities; lack of resources for implementation; and conflicts between atoll communities.</p> <p>Execution of biodiversity surveys dependent upon prevailing weather conditions (i.e. affecting travel between islands and surveys on each island)</p> <p>Reports of surveys compiled in timely and made available to stakeholders (collection of large amounts of data from all islands will involve considerable time in analysis and compiling reports)</p> <p>Success dependent upon commitment of several stakeholders including Fishery, Agriculture, Lands, Environment, Department of Rural Development , Kaupule and Falekaupules</p>
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- Activities**
- 1.1.1 a) Engage communities in defining bio-indicators (incorporating science and traditional knowledge) and community monitoring methods for biodiversity.
 - 1.1.1 b) Train R2R Island Officers and other island representatives on island level biodiversity monitoring
 - 1.1.1 c) Conduct biodiversity baseline survey (of at least 30 species) with communities in the 9 islands. Endemic coastal vegetation, submerged marine ecosystems (seagrass/coral) and other biodiversity hotspots to be identified.
 - 1.1.1d) Incorporate all new field survey data into a GIS-based management information system, which is to be updated every year.
 - 1.1.1 e) Community monitoring to take place annually. R2R Island Officers to update data every quarter.

<p>Output 1.1.2 Existing marine conservation areas in the 9 locations expanded to cover 15% of existing conservation areas (approx. 1200 ha or 12 km²) by including more land and sea areas and fish spawning aggregation sites where appropriate, building on completed assessments and additional National Biodiversity Surveys (as described in Output 1.1.1). Repeat assessments supported at midterm and project end to measure management effectiveness. Information incorporated into the GIS-based management information system (as described in Output 4.1.1)</p>	<p>Number of marine conservation techniques piloted</p> <p>Number of people aware and participating in marine conservation management (30 % women, children, elderly and vulnerable groups)</p> <p><i>(Supports delivery of GEF5 Indicator 1.1 (BD-1))</i></p>	<p>Currently there are 11 marine conservation areas (CA) across 9 islands governed by 8 Kaupules.</p> <p>Funafuti Conservation Area is the only legalized CA. However, no CAs currently have fully endorsed and enforced Management Plans, including FCA.</p>	<p>At least 9 marine conservation techniques piloted (1 per island)</p> <p>30 % of total Island Population aware and/or participating in marine conservation management (at least 50% are women, children, elderly and vulnerable groups)</p>	<p>Mid Term M&E Reports. (end of Yr. 3) representing a reports of biodiversity baseline of a specific designated studied area, one in each site.</p> <p>End of project report of the community biodiversity baseline (to coincide with BD DAY or Environment Day) to sustain monitoring of CA and data collection.</p> <p>Effectiveness of the LMMA/MPA will be measured through biodiversity surveys conducted within and outside of the LMMA/MPAs.</p>	<p>Community willingness to extend size of existing conservation areas</p> <p>Potential community disagreements on size, location and duration of conservation areas</p> <p>Strong sense of ownership and commitment at community levels to regularly monitor and evaluate progress of demonstration activities at three island as well as other islands</p> <p>Success of demonstration activities dependent upon weather conditions. (coral replanting affected by changing oceanic temperatures e.g. coral bleaching previously experienced) and natural disasters (e.g. hurricanes)</p> <p>Project to identify community champions as key leaders for demonstration activities</p>
<p>Activities</p> <p>1.1.2 a) Review of current extent, status and potential for expansion of 11 Tuvaluan Locally Managed Marine Areas (LMMAs) including Marine Protected Areas (MPAs) located across 9 islands.</p> <p>1.1.2 b) Through community consultation and scientific assessments (through Output 1.1.1), identify and agree on specific locations for LMMA/MPA expansion by 15% (approximately 1200 ha or 12 km²) and community-focused habitat rehabilitation programs.</p> <p>1.1.2 c) Conduct awareness program to educate the R2R Island Officers, kaupule members, and community on LMMAs/MPAs, marine conservation techniques, and the importance of conservation with reference to livelihoods and adaptations.</p> <p>1.1.2 d) Develop/update GIS maps of new LMMAs/MPAs boundaries in partnership with SPC</p> <p>1.1.2 e) Through a participatory process, implement, enforce, and monitor the implementation of marine conservation techniques piloted across the 9 islands</p>					
<p>Output 1.1.3 Community management systems of marine conservation areas formalised following participatory LMMA approaches, with biodiversity focus to address threats, including climate change.</p>	<p>Number of formalized community management systems of marine conservation areas (shared with Outcome Indicator)</p> <p>Number and effectiveness of system in place to monitor/report that R2R communities are fully engaged in the updating and implementation of LMMAs.</p> <p><i>(Supports delivery of GEF5 Indicator 2.1 (BD-2))</i></p>	<p>Except for Funafuti the other seven islands have established their CA based on a community based approach (LMMA). The management of these areas are done traditionally without formal legal and institutional support from Government directly. The Kaupule the executive arm does not interfere with the management of the LMMA except directed by the Assembly Fale Kaupule. Despite this, The role of different community groups (women, men, teenagers, elderly) are not made clear with regards to sustainable land management and marine biodiversity conservation and their island wide implementation.</p>	<p>9 formalized community management systems of marine conservation areas with management plans (hotspots, PAs, bio-indicators etc.).</p> <p>For all 9 LMMA's including Funafuti, an effective monitoring/reporting and evaluation system is in place by Y2 with evidence on how R2R communities are fully engaged in the updating and implementation processes \</p> <p>Vulnerable groups and women are involved (at least 30%) in the community management systems</p>	<p>National Report (NR) to CBD using spatial and biodiversity data gathered through the project.</p> <p>Quarterly and annual M&E reports from R2R Island Officer.</p> <p>Review of legislation, policies, and ISPs.</p>	<p>Continued political support (at national and island council level) and commitment for engaging communities into the planning and implementation processes.</p> <p>Land and lagoon resource tenure issues will not provide negative motivation discouraging active participation in R2R process.</p> <p>Clearly defined roles/interests and recognition of stakeholder (atoll community) groups.</p> <p>Full community support formalized management systems over LMMA establishment</p> <p>Different perspectives of community stakeholders may delay establishment of formalized management system (e.g. why have formal system in place if there traditional management systems have worked effectively for many years)</p>

Activities					
1.1.3 a) Review the current management system and traditional Kaupule conservation area management plans through community consultations to determine the weaknesses and strengths, as inputs to the LMMA/MPA plans (1.1.3b) in 9 sites.					
1.1.3 b) Strengthen, formalise and implement Funafuti MPA Plan and other LMMA/MPA management plans for each of the 9 sites					
1.1.3 c) Community-based monitoring and enforcement system for LMMA/MPA management plans developed and implemented by community members and R2R Island Officers					
1.1.3 d) Host annual community management and monitoring event					
COMPONENT 2 – INTEGRATED LAND AND WATER MANAGEMENT					
	Number of new sustainable land management (SLM) interventions introduced on Funafuti, Nanumea and Nukufetau that positively contribute to food security development on those islands. <i>(Supports delivery of GEF5 Indicator 3.2 (LD-3))</i>	Current adoption / promotion of composting and production of organic fertilizers is seeking to remedy the current challenge of having to promote food security on soils that are becoming saline or devoid of nutrients through inappropriate land use (tree planting) or pollution from human land usage. NAPA 1 introduced simple composting techniques with the assistance of the SWAT Department utilizing compost wastes.	Introduction of at least 3 new sustainable land management (SLM) interventions (focusing on improved opportunities for underutilized local crop species) and agroforestry interventions in Nanumea, Funafuti and Nukufetau that (if improved upon) will positively contribute to food security development on the 3 islands, for over 300 community members (or 30% of island population; 30% or over should be female) by the end of the project.	Climate resilient SLM technique guide National Report (NR) to CBD using spatial and biodiversity data gathered through the project. Quarterly and annual M&E reports from R2R Island Officer. Review of ISPs	Willingness of local Falekaupule to participate in planting new species of tree or new crops based on the findings of the new soil surveys undertaken. Risk that the SLM strategy is not implemented with clear actions and roles for all community members.
Outcome 2.1 Outputs					
Output 2.1.1 Resource inventory performed, soils characterized and hazards to land and water resources identified and incorporated into GIS area mapping, complementing Output 1.1.1 towards improving decision making in the management of production landscapes and maintenance of ecosystem services	Number of new detailed ground truth soil, geological, topographic and land resource characterisation field surveys completed. (Shared indicator with Outcome 2.1) Number of clear and measurable bio-indicators set to maintain ecosystem services for all pilot islands identified and reported; number of people trained to monitor and update bio-indicators. <i>(Supports delivery of GEF5 Indicator 3.2 (LD-3))</i>	Land resources surveys were undertaken by FAO in 1986. SPC under NAPA has completed soil survey in Nukufetau and Funafuti. Soils and terrain have altered since 1986 and new options for agriculture and coastal adaptation are now required.	Up to 3 (1 for each pilot islands) new or updated land and geotechnical surveys undertaken on Nanumea, Nukufetau and Funafuti and information stored within the GIS by the end of Y2. All new resource information (soils etc.) collated and stored within GIS (maps etc.) and used to inform land use strategies for SLM delivery on Nanumea and Nukufetau by the end of the project.	Geotechnical survey report GIS-based information management system incorporates updated soil survey information National Report (NR) to CBD using spatial and biodiversity data gathered through the project. Quarterly and annual M&E reports from R2R Island Officer. Review of legislation, policies, and ISPs.	Storage capability of GIS and ability to train (capacity) to upload, maintain and disseminate the new data in a usable format for decision makers in Tuvalu. Commitment and availability of USP and SPC to outer island missions as per proposed Annual Work Plans
Activities					
2.1.1 a) In line with bio-indicators developed under 1.1.1, develop resource indicators for land and water through community-based and scientific process.					
2.1.1 b) Train R2R Island Officers, island leaders and community members on the significance of land and water resource monitoring and management					
2.1.1c) Through a community-based and scientific approach, carry out an inventory to determine the quality and quantity of natural resources in the 3 selected islands (Nanumea, Nukufetau, and Funafuti)					
2.1.1d) Building on existing data (produced by FAO and NAPA II project), produce detailed ground truth soil, geological, topographic and land resource characterisation field surveys in the 3 selected islands					
2.1.1e) Incorporate all new soil and land resource characterisation field survey data into a GIS-based management information system.					
2.1.1 f) Identify information gaps/datasets needed for future surveys to help better deliver NBSAP principles					
2.1.1 g) Update information on resource-indicators annually within local and national GIS-based management information system.					

<p>Output 2.1.2 Re-vegetated degraded areas with indigenous hardwood tree species (including mangroves, coconuts and local crop species) in selected sites in 3 islands (Funafuti, Nanumea and Nukufetau), towards improving hydrological functions, coastal resilience against climate impacts, and improving livelihoods and securing food production with involvement of Department of Agriculture, Department of Rural Development, Kaupule, NGOs and women's organizations (Tuvalu National Council of Women)</p>	<p>Number of new sustainable land management (SLM) interventions introduced on Funafuti, Nanumea and Nukufetau that positively contribute to food security development on those islands. (shared indicator with Outcome 2.1) <i>(Supports delivery of GEF5 Indicator 3.2 (LD-3))</i></p>	<p>From a soft coastal adaptation perspective, there are significant areas of large salt tolerant trees on many of the Tuvaluan islands, though the engineering science surrounding their role in preventing coastal erosion is uncertain.</p> <p>New schemes are proposed for Nanumea (pandanus groynes construction to help develop the "green buffer" concept and a novel "spur and groove" reef rehabilitation project to help reduce wave energy impacting on the coast of Savave island are proposed on Nukufetau as part of NAPA1.</p> <p>Current adoption / promotion of composting and production of organic fertilizers is seeking to remedy the current challenge of having to promote food security on soils that are becoming saline or devoid of nutrients through inappropriate land use (tree planting) or pollution from human land usage</p> <p>Plants of Tuvalu book produced in 2012 reference material for the identification of plants, grasses, as it has scientific, common English names and local names.</p>	<p>Introduction of at least 3 new sustainable land management (SLM) (focusing on improved opportunities for underutilized local crop species) and agroforestry interventions in Nanumea, Funafuti and Nukufetau that (if improved upon) will positively contribute to food security development on the 3 islands, for over 300 community members (or 30% of island population; 30% of which should be female) by the end of the project.</p> <p>At least 1 knowledge product on climate-resilient SLM techniques developed and 2 suitable awareness programs to educate people (gender sensitive) on "climate resilient" replanting of arable crops (i.e. Happy Garden initiative), benefiting over 200 vulnerable community members (30% at least being female) by the end of the project.</p> <p>Planting of over 500 suitable hardwood (coconut/mahogany etc.), fruit tree species and underutilized local crop species over at least two islands by the end of Y4.</p> <p>At least 3 agricultural interventions (1 each in Nanumea and Nukufetau) implemented (with number of beneficiaries (at least 30% women and/or youth) and value of investments recorded).</p> <p>Trainees to visit / learn from the GCCA agroforestry sites in Funafuti.</p>	<p>Climate resilient SLM technique guide</p> <p>National Report (NR) to CBD using spatial and biodiversity data gathered through the project.</p> <p>Quarterly and annual M&E reports from R2R Island Officer.</p> <p>Review of ISPs</p>	<p>Willingness of local Kaupule to accept soft coastal adaptation measures ahead of hard coastal engineering schemes.</p> <p>Sufficient networking among regional, national and local experts for exchange of technical information, knowledge and experience across disciplines.</p> <p>Land and resource tenure issues will not provide negative motivation discouraging adoption of improved practices. Sufficient interested, receptive individuals and organizations available for training/capacity.</p> <p>Willingness of local Kaupule to participate in planting new species of tree or new crops based on the findings of the new soil surveys undertaken and experiences with previous projects.</p> <p>Risk that the SLM strategy is not implemented with clear actions and roles for all community members.</p> <p>Willingness of community members to maintain activities following completion of project life as by then the cash for work approach will no longer be in existence</p> <p>Motivation of Happy Garden Trainees to facilitate training /technical support in their island communities upon completion of training in Funafuti.</p>
<p>Activities 2.1.2a) Building on past and ongoing efforts (i.e. SLM project, etc.), develop the "Tuvalu Climate Resilient SLM Techniques Guide" covering agroforestry, agro-biodiversity, and agriculture interventions that would</p>					

<p>improve hydrological functions, coastal resilience against climate change, and improve livelihoods and food security in coordination and cooperation with Department of Agriculture</p> <p>2.1.2b) Implement priority SLM interventions in accordance with the Guide (2.1.2a) including the replanting of over 500 suitable hardwood (coconut / mahogany, etc.) fruit tree species and underutilized local crop species.</p> <p>2.1.2c) Create community training and involvement plans to aid in local engagement (including sponsoring organize community-based tree planting restoration programs involving local youth and women in raising mangrove saplings and maintaining the mangrove and coconut plantation nurseries).</p> <p>2.1.2d) In order to enhance community capacities to manage and sustain SLM interventions, support participation (2 participant per island per year) of island representatives to trainings in partnership with the "Happy Garden" Initiative and agroforestry demonstrations of the Department of Agriculture with involvement of Kaupule, NGOs and womens' organizations on Nanumea, Nukufetau, and Funafuti.</p>					
<p>Output 2.1.3 Review of completed algal bloom assessment in Funafuti; Implement remedial measures to reduce occurrences and severity</p>	<p>Number of actions implemented to understand and enhance water quality of Funafuti lagoon. (Shared indicator with Outcome 2.1) (Supports delivery of GEF5 Indicator 3.2 (LD-3))</p>	<p>Water quality in the lagoon has decreased and the amount of floating debris has increased over the years, potentially from agriculture, domestic sources, and other development activities in the surrounding lagoon catchment. Pollution within Funafuti Lagoon is deemed as being in a chronic state. Invasive alien species (IAS) <i>Sargassum polycystu</i> are present only near the coasts of Fongafale and the Conservation Area. Its distribution and density is believed to be correlated to the levels of toxins recorded within the water.</p> <p>There is also a high concentration of nitrate in particular this is very high close to the densely populated sites. There is ongoing direct disposal of human and animal feces into the waters of Funafuti lagoon. The resulting high nutrient loading resulted in algal blooms as has been recorded in lagoons in Funafuti.</p> <p>USP and SPC have undertaken studies together with Fisheries Department on the causes and impacts of the issue. People of Funafuti were advised through the Kaupule to harvest the seaweeds and use them manure in their home garden as a short term solution to reduce or decrease sea ground cover.</p> <p>PACCC Project conducted 2 studies with support of SPC on the demand and use of compost toilet on Funafuti in 2009 and then in 2013.</p>	<p>At least 1 reports (i.e. report by USP), surveys and data collection programmes reviewed / updated/ disseminated to determine status of algal blooms in Funafuti Lagoon to better understand causes and appropriate remedial measures.</p> <p>At least 1 remedial measure implemented to reduce point and non-point sources of pollution causing algal bloom in Funafuti Lagoon.</p> <p>Water quality and extent of algal bloom recorded and effectiveness of remedial measures measured at least 3 times (baseline, midterm, and final) during the lifetime of the project.</p>	<p>Reports on water quality testing that provides baseline information and updated recommended actions (testing to take place in intervention sites, and non-intervention sites to assess the effectiveness of the intervention)</p> <p>National IWRM policy</p> <p>Quarterly and annual M&E reports from R2R Island Officer.</p>	<p>Collaboration among all sectors who may be contributing to eutrophication levels within Funafuti lagoon.</p> <p>Authorities, politicians, and land owners commit to support land-use planning/zoning methods as assumed.</p> <p>Sufficient interested, receptive individuals and organizations available for training/capacity building.</p> <p>Community support for composting dependent upon previous experiences under IWRM Project</p>
<p>Activities</p> <p>2.1.3a) Review existing algal bloom assessment by USP PACE-SD to analyze the baseline condition and identify effective remedial measures and indicators for monitoring/evaluating the impacts of remedial measures</p> <p>2.1.3b) With community support and participation, implement remedial measures such as, but not limited to, composting toilets in hot spots, waterless pig waste management, composting of algae, reducing point</p>					

and non-point sources for pollution
 2.1.3 c) Conduct awareness raising efforts regarding the causes and impacts of algal bloom in the Funafuti Lagoon
 2.1.3d) Monitor water quality of Funafuti Lagoon (baseline, midterm, and final) and assess the effectiveness of remedial measure

COMPONENT 3 – GOVERNANCE AND INSTITUTIONS

<p>Outcome 3.1 Integrated approaches mainstreamed in policy and regulatory frameworks</p>	<p>Number of revised policies, updated sector plans or reviewed environmental regulations that help towards providing a functional enabling environment for conservation and integrated management of islands ICM, MSP, IWRM.</p>	<p>Currently, there is no established assessment and evaluation framework to integrate land and sea management issues for all atolls. Tuvalu is currently in the process of drafting an Integrated Water Resources Management (IWRM) Plan though has no endorsed ICM policy or planning principles in place.</p> <p>Existing Environment Act is not clear and specific to cater for the current environment and the level of mainstreaming climate change, biodiversity conservation, SLM, ICM and IWRM into ISP remains extremely limited in sector policies and work plans</p>	<p>Creation of 1 nationally recognized Policy Framework that integrates R2R principles</p>	<p>Report/ toolkit on mainstreaming R2R into national and island planning</p> <p>National Report (NR) to CBD using spatial and biodiversity data gathered through the project.</p> <p>Quarterly and annual M&E reports from PIU</p> <p>Review of legislation, policies, and ISPs.</p>	<p>Continued political support and commitment for engaging communities into the planning and implementation processes.</p> <p>Land and lagoon resource tenure issues will not providing negative motivation discouraging active participation in ISP process.</p> <p>Sufficient interested, receptive individuals available for capacity building activities.</p>
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Outcome 3.1 Outputs

<p>Output 3.1.1 Kaupule conservation area management plans examined and documented in conjunction with various departments (Environment, Fisheries, Rural Development, and Budget and Planning) and communities, and used to inform national planning and development of regulations and legislation at the national level in support of integrated approaches (ensuring that documents are also translated into local language).</p>	<p>Number of knowledge products and policy instruments developed to facilitate integration of R2R into national policies and Island Strategic Plans (ISP) that adopts (Integrated Coastal Management (ICM), Marine Spatial Planning (MSP) and Integrated Water Resource Management (IWRM) principles to address all land and sea related issues.</p> <p>Percent of ISP budget allocated for kaupule conservation area management plans (with R2R integrated).</p>	<p>Department of Environment has been designated by the Cabinet to implement the NBSAP but no clear provision on financial and other commitments required for plan implementation.</p> <p>Only one legislated CA and that is the Funafuti CA. The other nine CA/ LMMA have no formal legal and institutional arrangement, hence the technical support from relevant sectors is minimal. The nine CA also don't possess proper published management plans.</p> <p>NAPA 2 is also doing an activity on ISPs. In that project activity there is minimal emphasis on Conservation Management Plans.</p> <p>There is a high need for a draftsman or consultation for the implementation of ISP and even other government sectors' legal needs.</p> <p>Other projects like the CLGF under the Commonwealth is also doing similar work.</p>	<p>At least one report/toolkit on on mainstreaming "ridge to reef" principles into national and island planning (ISP) by end of Year 1 which is developed and disseminated to all stakeholders in at least 2 different formats, and translated into local language.</p> <p>10 percent of ISP budget allocated for Kaupule conservation area management plans (with R2R integrated).</p>	<p>Report/ toolkit on mainstreaming R2R into national and island planning</p> <p>National Report (NR) to CBD using spatial and biodiversity data gathered through the project.</p> <p>Quarterly and annual M&E reports from PIU</p> <p>Review of legislation, policies, and ISPs.</p>	<p>Clearly defined sets of key stakeholders and their engagement.</p> <p>Political commitment to designate support, and promote multi-stakeholder management systems.</p> <p>Potential local and international donors will engage in project implementation and provide necessary support to ensure long-term achievements.</p>
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Activities					
3.1.1a) Coordinating with past and ongoing projects (i.e. NAPA II, EU-GCCA, CLFG and C-CAP (USAID) Project) develop a toolkit to mainstream R2R (ICM and IWRM) into national and island planning processes.					
3.1.1 b) Formalise the integration of R2R principles into the Island Strategic Plans (ISPs) and budgets in close coordination with other relevant projects (i.e. NAPA II, EU-GCCA, CLFG and C-CAP (USAID) Project, etc.)					
3.1.1 c) Mainstream R2R principles into national legislation, policies, plans, and budgets					
3.1.1 d) Examine, document, and formalize Kaupule conservation area management plans/ agreements/ protocols with relevant national and island level authorities					
Outcome 3.2 Capacity on integrated approaches enhanced at the national and community levels	Number of staff in Govt of Tuvalu (GoT) and communities who are able to identify environmental risks and prioritize, plan, and implement effective conservation and integrated measures.	NGOs like TANGO, DoE and DoF are responsible for MPA Management Plans. Concerned departments, ministries, partners and stakeholders have all set up contact points to implement the Planning Framework for ISP (integrating land and sea) and have adopted ecosystem services consideration in key development policies and legislation.	75% of 2014 staffing numbers (30% of which being female or more) are trained to be able to identify environmental risk and help towards implementing the R2R components of the ISP by the end of the project. As a result of the training, at least 50 GoT staff and 200 community members are able to identify environmental risks and prioritize, plan, and implement effective conservation and integrated measures.	Production of Tuvaluan awareness raising materials, undertake "train the trainer" exercises and work with the Department of Education to include SLM, ICM and IWRM principles (topics) into a number communication related media, including inclusion within school activities where possible. Quarterly and annual M&E reports from PIU Review of national Tuvalu newsletter, radio programs, and other major media outlets	Regular accessibility to outer islands is limited and transport costs are often prohibitive and economies of scale need to be identified by working with other ongoing projects. There is the dearth for qualified nationals to implement any project and the small bureaucracy is characterized by fast staff turnover. Appropriate staff members need to be selected for training by their host agencies and staff turnover does not negate training benefits. No legal and regulatory framework is in place as basis for ICM or marine protection, including biodiversity conservation, sustainable land and water management.
Outcome 3.2 Outputs					
Output 3.2.1 Training packages including manuals, guides and modules on LMMAs, MPAs, SLM, ICM and IWRM, to advanced and basic levels, that include biodiversity status and assessments developed and implemented in collaboration with the regional R2R program support project	Number of training materials produced and trainings conducted on R2R (LMMAs, MPAs, SLM, ICM and IWRM) in collaboration with regional R2R program. Number of participants in island specific training events (including schools) and ToT training events held to focus on R2R measures that are island specific (gender disaggregated data)	Some existing training and materials developed related to LMMAs, MPAs, SLM and ICM. However, no training modules or workshops have taken place that addresses these issues holistically as R2R. Ad hoc training events are carried out on various topics linked to environmental protection, though few are integrated to cover a range of inter-disciplined topics that help deliver ISP at an island/atoll scale. Due to staffing constraints, MFATTEL is unable to conduct sufficient training in the outer island. DOE is under capacity/budget etc. (to implement the Planning Framework for ISP (integrating land and sea) and has clear provision on financial requirements and other requirements for plan implementation.) MHA is directly	More than 30 trainers trained by end of project. At least 30% of participants (if possible) are from vulnerable groups of society (women, children, adolescents, elderly). 4 national trainings conducted. At least 2 training modules in English and Tuvaluan developed. By the middle of Y3, at least 50% of 3 island schools are involved and over 75% of women's groups (adolescent groups) involved in all atoll community training events. By the end of the project, 100% of kaupule members of the 3 islands are participating in R2R training	Train the Trainer Manual Guides produced to help ensure that the R2R Island Officers of target islands have the knowledge and tools to produce their own management plans which will be one of their future key performance indicators (KPIs.) Report/ toolkit on mainstreaming R2R into national and island planning National Report (NR) to CBD using spatial and biodiversity data gathered through the project. Quarterly and annual M&E reports from PIU Review of legislation, policies, and ISPs. Stakeholder survey demonstrates that island communities are fully engaged	Sufficient interested, receptive individuals available for capacity building activities. Continued political support and commitment for engaging atoll communities into the planning and implementation processes. Land and lagoon resource tenure issues will not provide negative motivation discouraging active participation in R2R or ISP development process. Clearly defined and recognition of stakeholder groups. Sufficient interested, receptive individuals available for capacity building activities.

		involved with the implementations of ISPs as the funds from the FTF is remitted through the Ministry to Kaupule. In a year an island Kaupule receives approximately AUD 200,000 for activities and implementation of ISP.	events that help to update and provide the actions for future implementation of ISP/R2R activities	in the updating and implementation processes. Mid-term and Final project evaluation reports	
Activities					
3.2.1a) Develop training manuals and modules on LMMAs, MPAs, climate resilient SLM Technique Guides, and Integrated Coastal Management (ICM) and Integrated Water Resources Management (IWRM) by building on existing information and approaches in coordination with regional R2R project;					
3.2.1b) Organize annual training on 3 islands targeting key Tuvaluan communities and Kaupule Organize on ICM and IWRM principles including "Train the Trainer" events focusing on delivering effective marine conservation SLM, ICM and IWRM techniques.					
3.2.1c) Implementation of the training using manuals and modules developed in 3.2.1 a) for 10% of the population (including women, children and youth) by trainers from 3.2.1b)					
3.2.1d) Organize capacity building activities (for year 3, 4, and 5) for Tuvaluan development policy makers on R2R (ICM and IWRM) mainstreaming.					
3.2.1e) Support participation of Tuvalu representatives to trainings on the "best practices" from the Regional R2R projects on ICM and IWRM specific topics, including setting national bio-indicators to better monitor health and stressors on terrestrial and marine fauna and flora (biodiversity);					
3.2.1f) Develop training materials for community based biodiversity monitoring					
COMPONENT 4 – KNOWLEDGE MANAGEMENT					
Outcome 4.1: Improved data and information systems on biodiversity, forests land management adaptation best practice	Number of improved or new data and information system on biodiversity, agroforestry, land management, and adaptation best practices. Number / percentage of men, women, children, youth and vulnerable groups engaged by the R2R project	Development projects currently do not systematically benefit from learning practices and project lessons on community-based biodiversity and land / marine management.	At least 1 improved or new integrated data and information system (fed by components 1, 2, and 3) established and accessed At least 30 percent of project participants are female	Project reports from project annual M&E activities R2R Pacific website. GEF TWs Tracking Tool reports.	Delays in delivering products due to limited stock of knowledge management materials and delays in shipment; irregular internet service; non-participation in global/regional events due to unavailability of required visas; and loss of skills due to staff turn-over. Systematic planning for procurement of knowledge management materials; subscription to regular internet options; advance planning of travel and associated requirements; and include transfer of skills as part of staff hand-over notes.
Outcome 4.1 Outputs					
Output 4.1.1 Improved GIS-based management information system installed for biodiversity, forests and climate change, land & coastal management and best practices that includes an electronic library to access past knowledge, including reports, data etc. in parallel with ongoing projects, e.g., NAPA 2 project. Years 1 & 2 focus on collection of information and assessments with years 3 & 4 to focus more on applications.	Creation of a suitable and implementable digital metadata platform to accommodate new biodiversity, agroforestry, land management, water management and climate change datasets with appropriately trained staff to Dept. of Lands and Survey. Effective and consistent use of the "multi- donor project" electronic library at national level (to produce necessary information for a "National Report to CBD" bi-annual report) or local community level.	Tuvalu currently lacks the resources and capacity to fully develop a biodiversity component within the existing national GIS system that resides at the Department of Lands and Survey. The current database on biodiversity parameters and natural resource data in general is very much lacking. There is current work being undertaken by a knowledge management specialist on information management (work sponsored by GIZ) which needs to be built on regarding any future knowledge management system underway in Tuvalu.	A GIS-based information management system/portal is established and managed within a host that participates within a regionally sustainable network plus in a way that uses the Tuvaluan language where possible By the end of Y4, production and at least 2 GIS maps (i.e.: community mapping or database update etc.) for all 9 islands and are tailored to the capacity and hardware / software capabilities of the island. Local counterparts from the DoLS are trained to enhance their capacity on data management and to support the R2R process on data	GIS-based information management system is established and housed in DoLS / Tuvalu National Library Project reports from project annual M&E activities R2R Pacific website. GEF TWs Tracking Tool reports.	Political, technical and community support to continue to advocate for marine biodiversity conservation and land/water management database management requirements and practices. Technical information, knowledge and experiences available from Outcomes 1.1 and Outcome 2.1. Relevant staff have necessary capacity to manage GIS mapping programs Maps stored in central deposit and made available to stakeholders

			collection and management.		
Activities					
4.1.1a) Establish/enhance integrated GIS information management system and database that includes all terrestrial, coastal and marine biodiversity data captured through the R2R project, as well as other past, ongoing, and future projects					
4.1.1 b) Host a multi-stakeholder/ donor forum to gather information and agree upon an effective data management system that can be effective and sustained					
4.1.1c) Support and coordinate with ongoing efforts to develop an electronic library where past and ongoing data, knowledge, and information, including reports, data etc. are collected and hosted by the Government including the Tuvalu National Library					
4.1.1d) Support from regional agencies such as SPC /SPC –SOPAC (capacities in GIS mapping) to train local counterparts such as Department of Lands and Survey to enhance their GIS and data management capacities					
4.1.1 e) Standard Operating Procedure (SOP) on knowledge management developed and disseminated to ensure that data management systems will be maintained and updated after the project lifetime					
Output 4.1.2 Knowledge products (videos, photo stories, flyers, brochures) on all focal areas and best practices developed and disseminated through print, broadcast and through Kaupule, schools, NGOs, women's and youth groups. All translated into Tuvaluan.	Number of brochures, media releases, video documentary in local dialect, feature press article, and website produced, and percent of population who have received/consumed R2R knowledge products Number of reporters/ media trained on R2R related issues. Number of male and female officers trained.	Limited formal communication materials in existence on ISP and ICM/IWRM for each Pilot Island. There is a need to involve stakeholder groups in all stages of the R2R process. Limited channels to educate people on benefits of improving biodiversity and wider environmental conditions.	50% of all Tuvaluans (30% of which are women, youth, and/or vulnerable groups) have received R2R knowledge projects by the end of the project By end of the project, at least 5 separate types of innovative and effective awareness and communication materials developed and disseminated 50% of reporters/media in Tuvalu trained on R2R related issues. At least 30% of trained communication officers are female	Publication of an array of knowledge techniques (both in English and Tuvaluan) that disseminate the ICM and IWRM approaches adopted within the R2R programme on all outer islands. Reports from project annual M&E activities. GEF TWs Tracking Tool reports. Technical awareness documents and communication materials (video documentaries/web based products) produced and disseminated.	Technical information, knowledge and experiences available from Outcome 1.1 and Outcome 2.1. Commitment of stakeholders in sharing lessons learnt and best practices
Activities					
4.1.2a) Develop and disseminate an array of knowledge techniques that disseminate the R2R (ICM and IWRM) approaches					
4.1.2b) Establish, update and improve web based products					
4.1.2c) Create innovative public awareness and education campaigns					
4.1.2d) Support from regional agencies such as USP/SPC/SPREP/SOPAC (capacities in video documentary) to train key stakeholders in Tuvalu on innovative communication and knowledge product development					
4.1.2e) Training of local reporters/radio station on R2R related issues					
Output 4.1.3: Systematic monitoring system established, with data sharing and joint training and survey activities for terrestrial and marine areas and integrated approaches; monitoring and evaluation results are fed to the R2R program through the regional program support project to facilitate lessons sharing and cross-country fertilization	Number of inputs provided by staff and government towards the design of a regional/ international agency donor conference to help solicit R2R lessons learned.	No formal mechanisms in place to relay or disseminate best practice information or shared knowledge on R2R related topics.	At least 5 delegates from Tuvalu participate and provide inputs to the design of a regional/international agency donor conference for R2R lessons learned (at least 2 female candidates) by the end of the project.	Initiation and implementation of a major agency-donor conference to discuss the final draft of the Tuvalu R2R outputs and solicit support for implementation and "lessons learnt" at regional level Reports from project annual M&E activities. GEF TWs Tracking Tool reports.	Technical information, knowledge and experiences available from Outcome 1.1 and Outcome 2.1.
Activities					
4.1.3a) Initiate and implement a major agency-donor meetings to discuss proposals from unfunded priorities identified in the project and solicit support for implementation and "lessons learnt" at regional level.					
4.1.3b) Participation, knowledge sharing, and application of information and tools from the Regional R2R program to enhance cross-country fertilization of R2R efforts nationally, and regionally.					

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Response Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Table to demonstrate points and questions raised in the screening guidance from STAP prepared on 5th Oct 2013.

Point	Comments
<p>1. STAP welcomes this well-structured and researched proposal focused on ecosystem services and livelihoods with opportunities for community participation and which connects well with the regional program for Ridge to Reef.</p> <p>The project, hopefully, will break some of the sectoral barriers that impede IWRM/ICM and similar approaches to address the need for effective land/coastal planning and management.</p>	<p>This has been incorporated in the project design. Key barriers were identified during the PPG phase and co-measures have been identified. These include, but not limited to:</p> <ul style="list-style-type: none"> • Inconsistencies between legislations and policies related to different aspects of water and coastal resources management – a multi-stakeholder review of IWRM/ICM policies and legislation has been incorporated under Component 4 to ensure alignment and consistencies to existing institutions and governance systems are identified and integrated • Sector-based implementation of development activities in the outer islands – activities in the outer islands will be coordinated where necessary with representatives of various sectors, i.e. environment, agriculture, fisheries, and social affairs, will jointly participate in LMM, ICM, and IWRM activities.
<p>2. The project design is sound, in particular the sequencing of the investigations proposed, and STAP commends especially the knowledge management, communications and outreach and capacity building elements of the design.</p> <p>The principal remaining concern is the sustainability of the outcomes expected, which does not feature in the risks table, especially those that relate to the rapid staff turnover noted in the PIF and the financial sustainability of the support mechanisms cited.</p>	<p>The sustainability issues, including risks of staff turnover and financial sustainability have been addressed within Section 2.6 of the CEO EF and Section 2.6 of the Project Document.</p> <p>The regional R2R project also provides support on this by looking at incentive structures for retention of local expertise and facilitate inter-governmental dialogue to address human resource needs for ICM/IWRM (Outcome 2.2 of the regional R2R project). Opportunities will be created for staff to learn and share experiences with other Pacific SIDS facing with the same situation.</p>
<p>3. STAP recommended in its screening of the regional support project (GEF ID 5404) that it should include support for a multi-focal "PacIW: LEARN" for the region, which could act to sustain a peer to peer scientific and technical network for in-service training. This would satisfy the long standing demand under the Mauritius Strategy for Implementation, at least in this Pacific SIDS area. This advice was provided for the reason that, given the complex multidisciplinary threats and barriers shared by many of the PICs to be overcome, the sharing of expertise between PICs would strengthen sustainability of individual projects within the Program, but also across the other GEF and non- GEF projects delivering against allied environmental targets. In this connection the inclusion of knowledge management (Component 4) is welcomed and STAP advises that beyond fulfilling IW: LEARN obligations (for the IW funded elements), that the project should connect more formally to the proposed regional network as discussed above. STAP notes and welcomes the linkages to regional IW program support project</p>	<p>The R2R the regional R2R program support project (GEF ID 5404) will provide this support. The project document for this project has been submitted for CEO endorsement and approved in April 2015.</p> <p>Under Component 4 of this project, knowledge products and communication materials developed through the Tuvalu project will be showcased and fed into the Regional ICM project and the PacIW: LEARN that will be developed through the regional initiative.</p>

<p>already reflected in Output 3.2.2 and the monitoring and evaluation and sharing of lessons learned included in Output 4.1.3. Additionally, the baseline PacIWRM project's successful delivery of distance learning and twinning for IWRM capacity development is an excellent basis to build on regionally and nationally.</p>	
<p>4. Activities described in Components 2 and 3 regarding governance and integrated natural resource management plans are welcomed, particularly the inter-sectoral linkages across fisheries, agriculture, water quality and supply and health. The PIF states that inventories of land and water resources will be undertaken to obtain a basis for integrated planning and management (spatial planning-related datasets). This is welcomed provided that the mapping conceptualization has full community participation e.g. "planning for real" methods to engage communities.</p>	<p>Mapping and monitoring of land and water resource management will involve island communities, including men, women, and children. This will be coupled with various skills and knowledge building, and awareness raising exercises. The project will also strategically link mapping and monitoring efforts on the islands with existing traditional celebrations and events on the island, so that the project engagement and impacts can be wide-spread.</p>
<p>5. STAP advises that Component 2 and 3 actions should also take account of spatial planning, which takes a strategic viewpoint and which is capable of resolving conflicting uses by spatially planning activities and determining different zones for different uses, or the need to balance development and conservation by spatially planning and zoning according to objectives (conservation, economic development, maintaining existing uses, etc.). For example, in the form of Marine Spatial Planning (MSP) as applied to the Convention on Biological Diversity, it is marine and coastal planning that is forward looking, participatory, iterative, and which includes environmental and socio-economic considerations; it is also management that is comprehensive, science-supported and area-based, and promotes sustainable development.</p>	<p>This has been addressed and is incorporated into the project document. The Locally Managed Marine Area (LMMA) approach will be mainstreamed into the proposed Island Strategic Plans (ISP) update processes where policy framework for local island governance will embrace IWRM, ICM, SLM and MSP principles. Each plan shall then have specific actions that reflect the locals needs of each atoll. Specific details are included as outputs and activities within Outcome 3.1.</p>
<p>6. Related to spatial planning, Component 2 activities need to identify landscape and spatial linkages especially those that become operative where protected areas are instituted. On small islands it is imperative that trade-offs between use of parts of the upper landscape for agriculture (67% of the land area is noted in the PIF as being under agriculture) and coastal/marine areas be carefully identified and included in planning. The wash out of chemical fertilizers and soils will be very prevalent here. STAP advises that trade-off analysis has been used in similar circumstances on Caribbean islands.</p>	<p>The principles of Marine Spatial Planning and Integrated Coastal Management need to be easily implementable and have meaning to local communities (as opposed to them being overarching policy documents). This is addressed in Component 2 with regards to tangible outputs that address the lagoon water quality (pollution) issues in addition to introducing coastal habitat protection programmes that not only provide marine biodiversity protection support, but also seek to improve coastal protection (coastal vegetation) and also SLM delivery methods. The project document lists actual examples of atoll specific intervention measures that address this spatial linkage within Component 2.</p>
<p>7. STAP advises that the proposed GIS-based information portal should be sited and managed within a host that can participate within a regionally sustainable network. The PIF does not make clear how this vital project element will be sustained or connected to capacity building, although the use of the Tuvalan language is welcomed. The project could consider making a demand upon the regional support project (GEF ID 5404) to integrate and link the project and its demonstration sites into the regional portal.</p>	<p>Outcome 4.1 is designed to ensure that the proposed environmental information management system (GIS-based information portal) is sited and managed within a host (i.e. Tuvalu National Library, Department of Lands and Survey, etc.) that participates within a regionally sustainable network plus in a way that uses the Tuvaluan language where possible. The project is also designed to link with the regional support project (GEF ID 5404) to integrate and link the project and its demonstration sites into the regional portal. The proposed information management system shall focus on indigenous and endemic species, with all new updated vector data outlining the</p>

	extended protected areas being the major tangible output developed along with the creation of a “multi- donor project” electronic library to access past knowledge, including reports, data etc. in parallel with ongoing projects, e.g., NAPA II project .
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Furthermore, below comments from GEF Council (Germany) were addressed below:
(from Compilation of Comments Submitted by Council Members on the September 2013 Work Program)

Comments from Germany	Response
Germany recommends indicating the linkages to the parent Ridge to Reef Program (GEF ID 5395).	Parent R2R Program is indicated in CEO EF Section A.7: Coordination with other relevant GEF financed initiatives, and within the Project Document.
The ridge to reef project addresses measures in a number of areas – marine biodiversity and protected areas, land management and water resource management. To ensure an integrated approach, this would need to be addressed at the outset as the activities currently seem very sector focused	In order to ensure an integrated R2R approach, and avoid disconnect between sectors, key sectoral barriers were identified during the PPG phase and counter measures have been identified. These include, but not limited to: <ul style="list-style-type: none"> • Inconsistencies between legislations and policies related to different aspects of water and natural resources management – a multi-stakeholder review of IWRM/ICM policies and legislations has been incorporated under Component 3 to ensure alignment an consistencies to ensure that institutions and governance systems are coherent and integrated • Sector-based implementation of development activities in the outer islands – activities in the outer islands will be coordinated where representatives of various sectors, i.e. environment, agriculture, fisheries, and home affairs, will jointly participate in LMMA, SLM, ICM, and IWRM activities.
The proposed project could learn from the NAPA I+II as well as from the IWRM project with regard to multi-sector governance mechanisms and project steering structures. Germany requests these lessons being taken into account and building up capacity to enable the small Tuvalu Dep. of Environment to coordinate and manage the project.	The proposed R2R project in Tuvalu will build on lessons learned through the NAPA I, II, and IWRM project. This has been elaborated within the various Outcomes, Outputs and Activities in the Project Document.
In the area of Knowledge Management the establishment of GIS systems shall recognize the IT constraints and ensure that a sustainability plan is put in place to ensure that the government has the capacity to manage the systems at the end of the project	Sustainability of the GIS based information management system is a key concern and issue to be addressed within Component 4. The project will develop a Standard Operating Procedure (SOP) for data management through a multi-stakeholder discussion amongst various ministries and agencies (including Tuvalu National Library). Furthermore, innovative financing schemes (i.e. development of KM fund, etc.) may also be discussed, designed, and initiated.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS⁵

- Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: USD 150,000			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Component A - Technical review and Capacity Needs Assessment	35,000	28,000	7,000
Component B - Institutional arrangements, monitoring and evaluation	30,000	25,000	5,000
Component C - Stakeholder Consultations	35,000	23,434	11,566
Component D - Financial planning and co-financing investments	10,000	6,500	3,500
Component E - Validation Workshop	30,000	22,500	7,500
Component F - Completion of final project document	10,000	6,500	3,500
Total	150,000	111,934	38,066

⁵ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

NOT APPLICABLE



GOVERNMENT OF TUVALU
MINISTRY OF FOREIGN AFFAIRS, TRADE, TOURISM,
ENVIRONMENT & LABOUR
Department of Environment

Address: Private Mail Bag, Funafuti, TUVALU. Telephone: 20179. Email: plafasi@gov.tv

Date: 8th August 2013

To: Adriana Dinu
Officer-in-Charge, UNDP-GEF
United Nations Development Program
New York, U.S.A.

Subject: Endorsement for Project “Implementing a ‘Ridge to Reef’ approach to protect biodiversity and ecosystem functions, and adapt to climate change in Tuvalu (R2R Tuvalu)”

In my capacity as GEF Operational Focal Point for the Government of Tuvalu, I confirm that the above Project proposal is (a) in accordance with my government’s national priorities and our commitment to the relevant global environmental conventions; and (b) was discussed with relevant stakeholders, including the global environmental convention focal points.

I am pleased to endorse the preparation of the above Project proposal which will be led by the UNDP. If approved, the proposal will be prepared and implemented by the Department of Environment. I request the GEF Agency to provide a copy of the project document before it is submitted to the GEF Secretariat for CEO endorsement.

The total financing from GEFTF being requested for this project is US\$4,265,000 inclusive of GEF project grants, project preparation grants (PPG) and Agency fee. The fund requested for Tuvalu is detailed in the table below.

GEF Agency	Type of Trust Fund	Focal area	Project	PPG	Agency Fee	Total
UNDP	GEFTF	Biodiversity	1,323,392	52,755	123,853	1,500,000
UNDP	GEFTF	Land Degradation	520,535	20,750	48,715	590,000
UNDP	GEFTF	Climate Change	1,764,522	70,340	165,138	2,000,000
UNDP	GEFTF	International Waters	154,395	6,155	14,450	175,000
Total Grant Resources			3,762,844	150,000	352,156	4,265,000

I consent to the utilization of Tuvalu’s allocations in GEF-5 as defined in the System for Transparent Allocation of Resources (STAR).

Sincerely,

A handwritten signature in blue ink, appearing to read 'H. Latasi', is written over the printed name.

Pepetua Election LATASI

Acting Director of Environment

Department of Environment and GEF Operational Focal Point - TUVALU

Copy to : Mr. Tapugao Falefou, GEF Political Focal Point - TUVALU